

CARL SANDBURG HIGH SCHOOL



PHYSICAL EDUCATION RESOURCE BOOK

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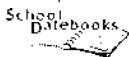
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The information in this book was the best available at press time. Watch for additional information and changes.



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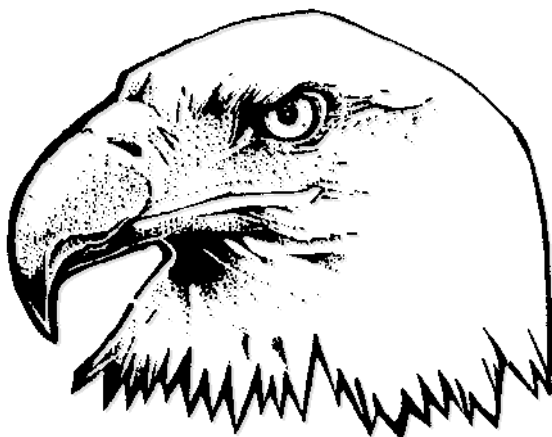
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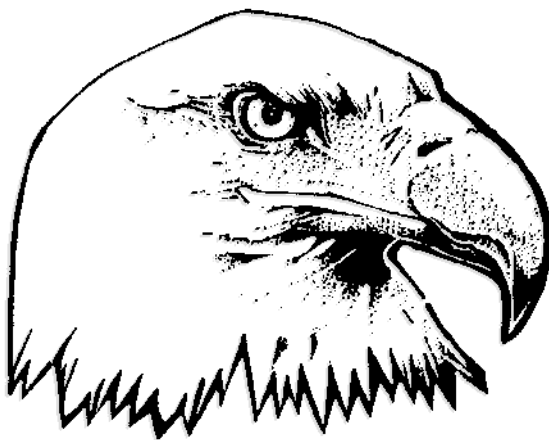
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PHILOSOPHY OF THE HEALTH AND PHYSICAL EDUCATION DEPARTMENT

The Health and Physical Education Department of District 230 believes that our primary goal is to enhance the quality of life of our students. The focus is to encourage our students not to just avoid sickness, but to achieve wellness. Wellness is a state of healthy balance whereby an individual makes sound decisions regarding exercise and fitness, nutrition and diet, rest and relaxation and health habits. A person's lifestyle, or the way they choose to live, has the greatest affect on health. Statistics show that seven out of ten leading causes of death are related to personal habits and behavior. Thus, in order for Wellness to be achieved, responsible decision-making must take place. This will include decisions about lifestyle, education, career options, and marriage. Other more impulsive choices may include decisions about whether or not to use alcohol, drugs, or tobacco.

We, as Health and Physical Education teachers believe it is our responsibility to develop in our students an awareness of the benefits of a healthy lifestyle, so they can make responsible decisions and be able to consider the consequences of those decisions. Wellness then is self-responsibility for health and using decision-making skills to make rational lifestyle choices.



DEPARTMENT EXPECTATIONS & GRADING POLICIES

1. Class participation is the most important aspect of Physical Education. It is your responsibility to be in class every day ready to participate in a recommended physical education uniform.
 - a. For each day you are not prepared and dressed for class in the required physical education uniform you will receive a zero. Points per no dress are progressive—first no dress = -20, second no dress = -30, third no dress = -40, fourth no dress = -50, fifth no dress = -60 sixth no dress = -70. On the sixth zero in one semester you may be dropped with a failing grade for the course and placed in a study hall for the remainder of the semester. You may also be dropped from the class when it is mathematically impossible to obtain a passing grade. A certified letter will be sent home on the 3rd and 4th zeroes, and a parent conference may be arranged on the 5th zero to discuss the impact of failing this course. **Zeros will also be given for truancy and not submitting written work while serving an in-school suspension.** According to School Board Policy 5144.1
“if a student is assigned an out of school suspension the work can be made up only at a supervised Saturday detention. It is the student’s responsibility to gather the assignments missed while suspended. These make-up assignments should be made up within the following two available Saturday detentions. Work not made up will affect the student’s unit and semester grade.”
 - b. All students will have one three-week swim unit during the course of the school year. Students that do not fulfill the swimming requirement are dropped from physical education with a failing grade for the course. See the **Swimming Participation Policy**. If you are not feeling well, dress for class and do the best that you can for that day. (Let the teacher know before class begins of this situation.)
 - d. After five absences, all other absences are considered to be unexcused.
 - e. Correcting attendance problems is the student’s responsibility. If a re-admit is not presented to the instructor, point deductions remain on record.
 - f. To be excused from activity, a parental note is required for less than 3 days. If you are unable to participate for more than 3 days, a doctor’s note is required. Written assignments are required for medically excused absences or exemption from activity. (See the **Medical Policy**)
 - g. The recommended uniform consists of a Carl Sandburg gym shirt and gym shorts, white socks and gym shoes with laces. Students in outdoor activities may wear sweat clothes and a hat for warmth and comfort.
 - h. Inappropriate attire such as wearing another person’s gym shirt or shorts or shoes other than gym shoes are not permitted and will affect the grade.
2. You are expected to be in the locker room (that is, inside the doors) before the tardy bell rings.
3. You are expected to give your best effort every day in class.
 - a. This means that you will give your best effort while preparing for and taking all Physical Fitness tests. (These tests occur in September, January and May).
 - b. Do not compare yourself to other students. Compare yourself to your own best self. Always look to improve in a **gradual and progressive** way.
 - c. Physical improvement takes place only when the body systems (respiratory, circulatory, cardiovascular, and muscular) are overloaded. This means you have to work a little harder as time passes to expect results.
4. Locker room suggestions:
 - a. Bringing food or eating in the locker room is not permitted.
 - b. Do not bring valuables in the locker room. If you have money to pay for something or have something of value, let your instructor lock it up for you during the class period.
 - c. Use your assigned locker. Do not share with someone else or switch to another locker.
 - d. Before you leave each day, check to make sure your locker is locked.

5. Prior permission from your teacher must be acquired before you can miss class without point deductions. Requests should occur before class, not the next day.
6. Safety is a primary concern. Students must adhere to safety factors related to each activity. All injuries should be reported to the instructor. Accident reports should be completed for injuries which may require X-rays.
7. A course requirement is that each student take a Final Examination. You must take the final on the assigned day or you must arrange the make-up day and time.

GRADING POLICIES

Zeros: Zeros are accumulated on a semester basis. Once six zeros have been accumulated, the student will be dropped from the class. Zeros will be given for:

No dress (being unprepared)

Truancy

Not submitting written assignments for an in-school suspension

Not submitting written work when medically excused

During each semester there are five units of instruction worth 100 points each (thus totaling 500 points per semester).

P.A.R. GRADE: P.A.R. stands for **Participation, Attitude and Responsibility**. Class participation is an integral part of Physical Education and an important factor in the grading process. An extension of attitude is the student's ability to display such personal traits as cooperation, teamwork, respect for others and sportsmanship. Responsibility is the ability to be prepared each day for the scheduled activity and be punctual to class. **Every student starts with 50 points in this category**, points will be deducted for the following infractions:

Attendance/Tardy Deduction

Truant (-20 points)

No written work for out-of-school suspensions (-20 points)

No written work for in-school suspensions (-20 points)

Unexcused absence (-10 points)

Tardy (-5 points)

Late to roll call (-5 points)

Participation Deduction

Lack of Effort (-10 points)

Not fulfilling daily warm-up requirement prior to activity (-5 points)

Uniform Deduction

No dress (1st offense -20, 2nd -30, 3rd -40, etc.)

No PE Shirt (-5 points)

No PE Shorts (-5 points)

Inappropriate PE Shoes (-20 pts points), unable to participate due to safety reasons

Fitness, Effort, Knowledge, Skill / Game Play Students may earn up to 50 points in this category. Any of the following may be used at the teacher's discretion to determine a student's point total:

Fitness – based on fitness-focused days incorporating cardiovascular and muscular fitness and flexibility in various workouts and/or fitness testing done at the end of the unit

Effort – based on student's output of energy and exertion during class activity

Knowledge - written test, written work, or record keeping covering activity rules and/or fitness concepts

Skill / Game Play – based specific skills tests covering the fundamental skills associated with the unit activity and/or teamwork and skill as observed during actual drills and games.

The **Final Examination** may be worth up to 20% of the grade. Part of the test may be written and part of the test will be a physical fitness exam covering exercises repeated every day in class. These tests measure muscular strength, muscular endurance, flexibility and cardiovascular endurance.

THE PHYSICAL EDUCATION DEPARTMENT GRADING SCALE IS:

97% - 100% A+	93% - 96% A	90% - 92% A-
87% - 89% B+	83% - 86% B	80% - 82% B-
77% - 79% C+	73% - 76% C	70% - 72% C-
67% - 69% D+	63% - 66% D	60% - 62% D-
59 and below F		

MEDICAL POLICY

Written work must be submitted in lieu of physical activity for all medically excused absences and exemptions from activity. The following process shall be used:

- The student must submit the doctor's note to the school nurse and will receive a school form stating the reason and length of the medical excuse.
- The student will submit the school form to his / her teacher and the teacher will assign written work to be completed on a weekly basis. (See page 138 for some possible written projects to be completed.)
- The Physical Education teacher and school nurse will decide if the length and/or seriousness of the medical condition for which the student is being excused, warrants that the student be placed into a study hall.
- If the student is assigned to a study hall, it is the student's responsibility to report to class on Friday (or the last day) of each week to turn in completed work and provide an update on his / her medical status.
- For an ongoing medical condition, the student may be required to submit an updated doctor's note on a quarterly basis.
- In the case of a chlorine allergy, **a new doctor's note is required each year** to be excused from the swimming unit, as medical conditions may change over time.

SWIM POLICY

EXPECTATIONS:

100% participation is expected of students enrolled in an aquatic activity. It is a course requirement that students **must be in the water 90%** of the time. (Days out of the water **must** be made up...unless the days out are because of a written note from a **doctor**).

COURSE REQUIREMENT

If, after the aquatics unit is complete, a student has make-up swims, he/she has four weeks from the last day of the unit to make them up. **If they are not made up, the grade will be an "I" (Incomplete). The "I" turns into a semester grade of F after four weeks.**

SWIM MAKE UPS

In order to make-up a swim class the student should get a pass from their physical education teacher and present it to the teacher on deck before he/she is to swim. **"O" hour, study hall, lunch/homeroom** may be used for make-ups. The teacher in charge will assign 30 minutes of swimming that fits in with the day's activity. Make sure to obtain a "make-up" card from the aquatics teacher before leaving.

MEDICAL EXCUSES

If a student is in class but not swimming, he/she **must** have a note from home or a doctor. If a note exempts the student from swimming, he/she **must** come prepared to exercise and run (gym shoes and uniform). If the note exempts the student from all activity, he/she **must** read and summarize an article that pertains to physical education.

Return the bottom portion to your physical education teacher.

I have read and understand the course expectations, grading policies, and swim unit expectations described.

Student Signature _____

Parent/Guardian Signature _____

PHYSICAL EDUCATION PROGRESS REPORT

Dear Parent,

This is a Progress Report for _____

Counselor _____ Current grade _____ Teacher _____

Attendance	Satisfactory _____	Unsatisfactory _____
Uniform	Satisfactory _____	Unsatisfactory _____
Skill	Satisfactory _____	Unsatisfactory _____
Written test	Satisfactory _____	Unsatisfactory _____
Warm up	Satisfactory _____	Unsatisfactory _____
Fitness level	Satisfactory _____	Unsatisfactory _____
Participation	Satisfactory _____	Unsatisfactory _____
Behavior	Satisfactory _____	Unsatisfactory _____

PHYSICAL EDUCATION DROP POLICY

If a student accumulates five (5) zeros in a semester, that student will fail the class and will be required to repeat the course to fulfill graduation requirements. Zeros were issued for the following reasons on the following dates.

Zero #1 _____	Not dressed for activity	Truancy	In school suspension / no written work
Zero #2 _____	Not dressed for activity	Truancy	In school suspension / no written work
Zero #3 _____	Not dressed for activity	Truancy	In school suspension / no written work
Zero #4 _____	Not dressed for activity	Truancy	In school suspension / no written work
Zero #5 _____	Not dressed for activity	Truancy	In school suspension / no written work

HEALTH AND PHYSICAL EDUCATION CURRICULUM

Freshman Level -Two semesters of Physical Education: Units may include: Fitness Assessment, Swimming, Basketball, Team Handball, Beginning Weight Training, Volleyball, Introduction to Movement ,Wellness Concepts, Pickle Ball, Wrestling and Softball

Sophomore Level -1 Semester of Health Education 1 Semester of Physical Education

Health: Consumer Health Aerobic Dance Drugs, Alcohol, Tobacco-Use and Abuse, Human Growth and Development, Human Sexuality and Family Living, Mental Health and Illness Personal Fitness Nutrition and Development of Healthful Routines Prevention and Control of Disease Public and Environmental Health Safety Education and Disaster Survival

PE: Team Handball - Badminton Volleyball Intermediate Weight Training Fitness Assessment Basketball Soccer Swimming - Snorkeling

Junior-Senior Level - 2 semesters of Physical Education: Fitness Assessment, Aerobic Dance, Badminton , Basketball, Floor Hockey, Razzle Dazzle Football, Pickle Ball, Lacrosse Soccer, Swimming - Water Polo, Softball, Tennis, Volleyball, Weight Training

Elective Courses:

11-12 Advanced Concepts 11-12 Dance 1 11-12 Dance 2 11-12 Dance Exercise 10-11-12 Fitness and Nutritional Analysis 11-12 Strength and Conditioning 11-12 Challenge Education

STUDENT OUTCOMES OF THE PHYSICAL EDUCATION PROGRAM

Students will be able to:

1. Demonstrate competence in a variety of manipulative, locomotor, and non-locomotor skills.
2. Demonstrate competence in combinations of manipulative, locomotor, and non-locomotor skills alone and with others.
3. Demonstrate competence in many different forms of physical activity, including dance, sport, and games.
4. Demonstrate proficiency in a few forms of physical activity.
5. Participate in vigorous activity at least three times a week.
6. Participate regularly in lifetime physical activities.
7. Experience the process of assessing, developing, and maintaining physical fitness.
8. Design safe, personal programs that result in physical fitness.
9. Explain the benefits associated with regular participation in physical activity.
10. Recognize the risk and safety factors associated with regular participation in physical activity.
11. Know how to select and become involved in physical activities.
12. Be able to apply movement concepts and principles to the development of motor skills.
13. Describe how to determine, develop, and maintain physical fitness.
14. Understand that personal health involves more than being physically fit.
15. Know the rules, strategies, and appropriate behaviors for selected physical activities.
16. Understand that participation in physical activity can lead to cross-cultural and international understanding.
17. Understand that physical activity provides the opportunity for enjoyment, communication, and self expression.

18. Value the relationships with others that result from participation in physical activity.
19. Value the role that regular physical activity plays in the pursuit of lifelong health and well being.
20. Value the feelings that result from regular participation in physical activity.

A PHYSICALLY EDUCATED PERSON. . .

HAS sufficient skills to perform a variety of physical activities

PARTICIPATES regularly in physical activity

IS physically fit

KNOWS the benefits, costs, risks, and obligations of physical activity involvement

VALUES the effects of regular physical activity in maintaining a healthy lifestyle

Physical education contributes to a child's overall health by increasing or improving:

cardiovascular endurance • bone development

muscular strength and power • posture

muscular endurance • skillful movement

flexibility • mental alertness

weight regulation • active lifestyle habits

constructive use of leisure time

QUALITY PHYSICAL EDUCATION

Quality PHYSICAL EDUCATION has the following elements:

- Aerobic exercise designed to improve children's cardiovascular fitness (at least three times a week for 20 minute periods);
- Exercise to improve strength and flexibility (three times or more per week);
- Sports, games, dance, and other activities that teach coordination and motor skills;
- Instruction in how physical activity can improve children's personal health and well being;
- Experiences that will improve the opportunity for positive attitudes and values to develop.

Quality Physical Education offers the following benefits:

Physical well-being: decreased risk of heart disease, physical fitness, stronger bones, weight regulation, healthy, active lifestyles

Mental well-being: higher academic performance, increased interest in learning, better judgment, self discipline, goal setting

Psychological benefits: positive attitudes toward physical activity, improved self-confidence and self-esteem, outlet for stress, strengthened peer relationships, reduced risk of depression, healthier lifestyles

HEALTH-RELATED PHYSICAL FITNESS

WHAT IS PHYSICAL FITNESS?

Being physically fit means having the strength and endurance to carry-out every day activities without undue stress and still have enough energy to participate in leisure activities and be able to deal with an unexpected emergency. When you are physically fit, your heart, lungs, and muscles are strong and your body is firm and flexible. Your body weight and percent of body fat are also within a desirable range.

District #230 Physical Education programs have developed a Health-Related Physical Fitness Test battery in conjunction with the American Alliance of Health, Physical Education, Recreation and Dance and the President's Council of Physical Fitness and Sports. The testing program places a major emphasis on health-related physical fitness including Cardiovascular Endurance, Muscular Endurance, Muscular Strength, Flexibility and Body Composition.

PHYSICAL FITNESS COMPONENTS AND THEIR RELATIONSHIP TO HEALTH

Cardiovascular Endurance: The greatest single cause of death in the United States is coronary heart disease (CHD). CHD usually presents warning signs in the form of the following risk factors, such as elevated blood lipids, hypertension, and disturbances in heart rhythms. These risk factors have been shown to be related to people's lifestyles. Stress, cigarette smoking, consumption of fat, and physical inactivity are lifestyle habits that have a direct tie to CHD mortality. According to a recent report from the Surgeon General, lack of regular exercise and physical activity contribute to the development of other CHD risk factors.

Research suggests that by engaging in regular exercise and physical activity that improves the cardiovascular system (aerobic capacity), individuals can reduce many risk factors associated with coronary heart disease. This is especially true for young people. There is strong evidence that the onset and rapid development of CHD can begin during youth, and may eventually become irreversible.

Cardiovascular Endurance is evaluated by performing the Mile Run for time outdoors or the Pacer test indoors. Aerobic (another name for cardiovascular: cardio = heart, vascular = veins and arteries) activities are incorporated throughout the physical education curriculum in order to improve this component. These activities include walking activities, jogging, running, jumping rope, distance swims, stationary bicycling, aerobic dance, step aerobics, basketball, team handball, touch football or any other activities which utilize the large muscles of the legs and elevates the heart rate.

Cardiovascular Endurance is defined as the ability of the heart and lungs to provide an adequate supply of oxygen to the body over an extended period of time. "Because physical activity is so directly related to preventing disease and premature death and to maintaining a high quality of life, we must accord it the same level of attention that we give other public health practices that affect the entire nation."

...Audrey F. Manley, Former Acting Surgeon General

Muscular Endurance: Weak abdominal muscles can promote health-related problems by contributing to a misalignment of the spine. When weak abdominal muscles add strain to the lower back muscles, low back problems can result. At the present time in the United States, eight out of ten individuals seek medical care for low back pain! Research studies conducted to investigate ways to provide relief to people who suffer from back pain have demonstrated that improving the endurance of the abdominal muscles can decrease the incidence and severity of the pain. Muscular Endurance is evaluated in our program in two ways, the one minute Partial Curl test and the Push-Up test. Having muscular endurance indicates that your muscles are strong enough to move for long periods of time and can complete numerous repetitions. In

our Physical Education program each day, during the warm-up phase of each lesson, students develop muscular endurance by participating in sets of abdominal exercises (including crunches, ab curls and ab twists) and push-ups (including wide base, regular base and tricep push-ups) in increasing numbers (progressive overload) as the time passes during each semester.

Muscular Endurance is defined as the ability of the muscles to sustain repeated productions of force at low to moderate intensities over an extended amount of time.

Muscular Strength: Upper body strength is important for individuals to perform daily activities and tasks such as taking out the trash, moving furniture or appliances, or changing a tire and lifting, pulling, or pushing objects. Many tasks involve use of the upper body and limbs. In an emergency a strong individual has a better chance of avoiding serious injury than a weak person. In many cases upper body strength can make the difference between a serious injury and escaping harm.

Muscular Strength is evaluated in our physical education program by the student either performing the flexed-arm hang or the pull-up test. The female students usually are evaluated by completing the flexed-arm hang and the male students the pull-up test. However, there are norms (averages) available for each of these evaluations for both genders. If a student can perform numerous repetitions in completing these tests, then they are demonstrating muscular endurance rather than strength. If this is the case the instructor may choose to use a hand dynamometer to measure hand strength or have the student perform a maximum lift (1 time repetition) in the bench press, while assigned to the weight room, in order to get a true measure of strength. In order to evaluate this test, use the data listed below:

Upper Body Strength = 1 rep max in pounds divided by body weight in pounds

	<u>Males</u>	<u>Females</u>
Excellent	greater than 1.26	greater than .78
Very Good	1.17 - 1.25	.72 - .77
Good	.97 - 1.16	.59 - .71
Fair	.88 -.96	.53 - .58
Poor	less than .87	less than .52

Muscular Strength is defined as the ability of the muscles to produce force at high intensities over short intervals. In our program, strength is developed through daily efforts in performing pull-ups before attendance is taken. Students are encouraged to practice these strength training exercises with a partner and help each other work on negative pull-ups for support. Each student is also enrolled in a weight training unit each year and is encouraged to work on the same muscles designed to improve upper body strength (including lat pull-down exercises which are the prime movers in these tests).

Flexibility: Most Americans will, at one time or another, suffer back problems. Approximately 80% of these low back problems are due to weak and/or tense muscles. Many daily activities place a great deal of strain on these muscles. Physical inactivity can also contribute to the risk factors that promote back problems. This means that these problems can be reduced or limited through improved physical fitness. Physical inactivity contributes to a loss of flexibility for the lower back and the hip flexors. Sitting for long periods of time promotes a sedentary existence which will result in a loss of flexibility. Individuals with a sedentary lifestyle who perform occasional physical labor are at high risk for developing back problems. Physicians prescribe specific trunk and thigh flexibility exercises - stretching - for their patients with lower back problems, supporting the value of stretching exercises to prevent low back problems.

Flexibility is evaluated by having students perform the sit and reach test, which measures the flexibility of the hamstring muscles and the lower back. Flexibility is practiced each day by having students perform appropriate stretching exercises during the pre-activity warm-up. The only way to improve flexibility is to have the participants utilize “static stretching” each day in class. This type of stretching incorporates slow, relaxed stretching, with a comfortable breathing pattern so that, over time, the individual learns how to stretch properly.

Flexibility is defined as the ability to move muscles and joints through their full range of motion.

Body Composition: The human body can be divided into two parts: lean weight (muscle, bone, and internal organs) and fat weight. For good health, the body should maintain a proper ratio of one to the other. Obesity is an excessive accumulation of fat weight. Low levels of activity, resulting in fewer calories used than consumed, contribute to the high incidence of obesity in the United States today. Young people are more obese now than ever before. Obesity is associated with many risk factors of coronary heart disease, stroke, and diabetes. Reversal of these risk factors can be achieved by reducing an individual's total body fat. Exercise along with proper diet by observing good nutritional principles relating to lowering personal consumption of saturated fats, sweets, and excessive calories are important lifestyle changes that individuals must make. Body Composition is discussed as a component of physical fitness and students are not required to be evaluated in this area, since it is a personal matter. If a student chooses to be evaluated, a physical education instructor will use **Futrex**, a body fat calculator, to measure his/her body composition. This machine calculates the student's percentage of body fat. Another method used to evaluate this is **Body Mass Index (B.M.I.)**. The department has charts to approximate a person's body mass index which correlates to body composition. The concept of body composition is discussed in detail during the Freshmen Wellness Concepts curriculum, a three week unit regarding the guidelines for a healthy lifestyle.

Body Composition is defined as the division of total body weight into two parts: lean muscle mass and fat weight.

TO IMPROVE PHYSICAL FITNESS - FOLLOW THE PRINCIPLES OF EXERCISE

Progression: Gradually increase how hard, how long, and how many times you do an exercise over a period of time. It takes six to eight weeks for physical improvement to take place. For instance, don't try to go from doing 25 sit-ups to 50 overnight, but add a few more every week until you've reached your goal.

Regularity: Be regular with your exercise routine. Set up a regular schedule and work out every day or at least 3 - 5 times per week. Do not take time off for too long because what you don't use, you lose!

Overload: For a muscle to get stronger increased demands must be placed upon the body. This increased stress causes the body to adapt or adjust and consequently an improvement in physical condition will take place. There are 3 ways to increase overload. These include:

1. Frequency - Increasing how often you exercise. The number of times per day or week that an activity is performed can be increased.
2. Intensity - Increasing the level of difficulty of an exercise. You can increase how much is lifted or the speed of a run to be completed.
3. Time - Increasing the length of a training session or the duration of the exercise session.
4. Type - Type of exercise.

Specificity: Exercise is specific. For example, aerobic exercises will not develop flexibility and stretching exercises will not make you stronger. To be flexible, you have to stretch and to be strong you have to make your muscles work hard.

FITNESS EXCELLENCE AWARD



The **Fitness Award Program** is designed to recognize students for outstanding achievement in the area of Physical Fitness.

“Fitness Excellence” T-Shirts will be given to the top five students in each fitness test from each class (Fr., So., Jr., Sr.) of each gender. You may also earn a T-shirt for achieving at a “4-Point” level in all five fitness tests.

Fitness Tests Include:

Abdominal Curls, Push-ups, Sit and Reach, PACER, Mile Run or 1-1/2 Mile Walk. Refer to the following pages to see what a “4-Point” level is for your grade and gender.

ACHIEVE WELLNESS!



HEALTH-RELATED FITNESS TESTS - MALES

	<u>SIT UPS</u>		<u>PUSH-UPS</u>		<u>SIT & REACH</u>	
<u>PTS.</u>	<u>FR/SOPH</u>	<u>JR/SR</u>	<u>FR/SOPH</u>	<u>JR/SR</u>	<u>FR/SOPH</u>	<u>JR/SR</u>
4	72+	80+	35/37	40	13"+	13"+
3	58-71	65-79	28-34/31-36	33-39	9"-12.5"	10"-12.5"
2	45-57	55-64	21-27/22-30	26-32	7"-8.5"	8" - 9.5"
1	≤44	≤54	≤20 / ≤21	≤25	≤6.5"	≤7.5"
0	NO EFFORT		NO EFFORT		NO EFFORT	
	SCORE _____		SCORE _____		SCORE _____	
	POINTS _____		POINTS _____		POINTS _____	

	<u>MILE RUN</u>		<u>PACER</u>	
<u>PTS.</u>	<u>FR/SO</u>	<u>JR/SR</u>	<u>FR/SO</u>	<u>JR/SR</u>
4	<6:30	<6:30	90+	90+
3	6:31-7:15	6:31-7:15	72 - 89	72 - 89
2	7:16-7:45	7:16-7:45	54 - 71	54 - 71
1	7:46+	7:46+	≤53	≤53
0	NO EFFORT		NO EFFORT	
	SCORE _____		SCORE _____	
	POINTS _____		POINTS _____	

COMPILING TEST RESULTS - THE TOTAL NUMBER OF POSSIBLE POINTS IS 20 POINTS FOR THE PRE- AND POST- TESTS AND 16 POINTS FOR MIDYEAR TESTS (DUE TO NOT BEING ABLE TO TEST THE MILE RUN AND 1 1/2 MILE WALK MID-YEAR). THE SCORES AND TOTAL POINTS SHOULD BE COMPLETED BY THE STUDENT. THE GRADING SCALE IS AS FOLLOWS:

TOTAL POINTS _____

FITNESS TEST GRADING SCALE

5 TEST SCALE

A = 18 - 20 POINTS
 B = 16 - 17 POINTS
 C = 14 - 15 POINTS
 D = 13 AND BELOW
 F = NO EFFORT

4 TEST SCALE

14 - 16 POINTS
 11 - 13 POINTS
 8 - 10 POINTS
 7 AND BELOW
 NO EFFORT

HEALTH-RELATED FITNESS TESTS - FEMALES

<u>SIT UPS</u>			<u>PUSH-UPS</u>		<u>SIT & REACH</u>	
<u>PTS.</u>	<u>FR/SOPH</u>	<u>JR/SR</u>	<u>FR/SOPH</u>	<u>JR/SR</u>	<u>FR/SOPH</u>	<u>JR/SR</u>
4	60+	65+	25	25	13"+	14"+
3	45-59	53-64	15-24	17-24	10.5"-12.5"	11.5"-13.5"
2	35-44	40-52	5-14	7-16	7.5"-10"	8" - 11"
1	≤34	≤39	≤4	≤6	≤7"	≤7.5"
0	NO EFFORT		NO EFFORT		NO EFFORT	
	SCORE _____		SCORE _____		SCORE _____	
	POINTS _____		POINTS _____		POINTS _____	

<u>MILE RUN</u>			<u>PACER</u>		<u>1 ½ MILE WALK</u>	
<u>PTS.</u>	<u>FR/SO</u>	<u>JR/SR</u>	<u>FR/SO</u>	<u>JR/SR</u>	<u>FR/SO</u>	<u>JR/SR</u>
4	≤8:00	≤7:45	70+	75+	≤20:00	≤18:30
3	8:01-9:30	7:46-9:16	50 - 69	59-74	20:01-21:00	18:31-21:00
2	9:30-11:00	9:15-10:45	30 - 49	40-58	21:31-23:00	21:01-23:00
1	11:01+	10:46+	≤29	≤39	23:01+	23:01+
0	NO EFFORT		NO EFFORT		NO EFFORT	
	SCORE _____		SCORE _____		SCORE _____	
	POINTS _____		POINTS _____		POINTS _____	

COMPILING TEST RESULTS - THE TOTAL NUMBER OF POSSIBLE POINTS IS 20 POINTS FOR THE PRE- AND POST- TESTS AND 16 POINTS FOR MIDYEAR TESTS (DUE TO NOT BEING ABLE TO TEST THE MILE RUN AND 1 1/2 MILE WALK MID-YEAR). THE SCORES AND TOTAL POINTS SHOULD BE COMPLETED BY THE STUDENT. THE GRADING SCALE IS AS FOLLOWS:

TOTAL POINTS _____

FITNESS TEST GRADING SCALE

5 TEST SCALE

A = 18 - 20 POINTS

B = 16 - 17 POINTS

C = 14 - 15 POINTS

D = 13 AND BELOW

F = NO EFFORT

4 TEST SCALE

14 - 16 POINTS

11 - 13 POINTS

8 - 10 POINTS

7 AND BELOW

NO EFFORT

HEALTH RELATED FITNESS TEST GUIDELINES

CARL SANDBURG HIGH SCHOOL

Cardiovascular (Cardiorespiratory - Aerobic) Test. All students will complete the pacer Test at least three times per year. These will take place in September, January, as part of the final exam, and in May.

THE PACER TEST

1. Designate an area 20 meters apart for running the test. Mark each end with cones or tape lines.
2. All students should pair up with another student. One student will perform the Pacer while the student will serve as a counter. (He/she will keep track of the total number of laps completed.)
3. Students run across the designated area and touch the line by the time the beeper sounds. At the sound of the beep they turn around and run back to the other end. If a student gets to the line before the beep, they must wait for the beep before starting back to the opposite direction.
4. When to stop - When a student does not reach the line by the beep, he/she should reverse direction on the beep (even if they haven't touched the line). Allow the student to catch up with the pace until he/she has missed two beeps. Students completing the test should continue to walk and then stretch in a cool-down area.
5. Record the total of laps completed.

Other tests or methods to evaluate Cardiovascular endurance may include the Mile Run, the 1-1/2 Mile Walk or the 12 Minute Run. Class activities used to develop C-V Endurance could include walking activities, jogging activities, running activities, jump rope activities, aerobic dance, step aerobics, soccer, team handball, ultimate frisbee, flag football or any activity which elevates the heart rate into the target heart rate.

FLEXIBILITY TESTING - THE SIT AND REACH TEST

1. All students should warm-up thoroughly before being tested on the Sit and Reach test.
2. After pre-stretching, the student should remove his/her shoes before being tested.
3. The student to be tested should place his/her feet up against the sit and reach box and another student should assist the individual being tested by supporting the knees gently.
4. While placing one hand directly over the other hand (middle fingers on top of one another) the performer reaches as far as possible without bouncing (a static stretch) four times. The last reach must be held for a full second in order to be considered a static stretch. (The count should be one thousand one). Record the total in inches and half inch increments.

UPPER BODY STRENGTH / ENDURANCE TEST- (PUSH-UPS)

1. The participant when performing push-ups should have their hands shoulder width apart. When looking from above the middle finger should be in line with the outside edge of the shoulder.
2. The test begins with the individual in the full extension or up position.
3. No rest is allowed during the test. Continuous movement must occur.
4. The push-up is counted only when the performer's shoulders go below the elbows (or a 90 degree position). This can be viewed while sitting directly in front of the person being tested.
5. The performer will follow along with the PACER push-up CD and must go down and up on the cadence provided.
6. When performing the test, the student will get one warning on poor form or not completing the push-up (all the way down or all the way up). On the second mistake the test will be over and the student will record the total number of push-ups completed.

ABDOMINAL ENDURANCE TEST (PARTIAL-CURL-UPS)

1. The students will perform the following test with a two minute time limit.
2. Technique is of the utmost importance while performing these abdominal curls.
3. The student being tested will lie down on a gym mat with knees flexed and feet 12 inches from the buttocks.
4. Another student or the teacher will serve as the counter by kneeling near the feet of the participant and **holding the feet of the person being tested. The student being tested sits up until their elbows come in contact with their knees or thighs.** After making contact, the person being tested should slowly move back down until the shoulder blades come in contact with the mat. During the test the heels must stay in contact with the ground and the knees must remain in line with the hips and shoulders at all times. After a **two** minute time limit, the total complete repetitions should be recorded. Movement should be continuous with no rest allowed.

OPTIONAL FITNESS TEST

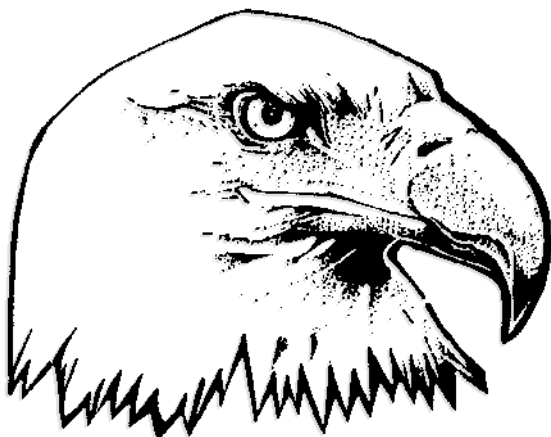
The Pull-up Test and/or the Flexed Arm Hang may also be used to evaluate upper body strength. The test protocol for each of these is described below. A pull-up bar is required for both tests.

PULL-UP TEST

1. The person being tested should start from a full hanging position from the pull-up bar and then pull him/herself up so that the chin is above the bar. The person continues to do as many repetitions as they can without kicking the feet or wiggling their legs in an upward fashion.
2. The counter should only count those pull-ups that are all the way down so that arms are perfectly straight and up until the chin is above the bar. It is a measure of upper body strength and kicking of the legs or feet is not allowed.

FLEXED ARM HANG

1. The person performing the flexed arm hang starts with his/her chin above the bar and being supported by a chair or bench and the hands grasping the pull-up bar with bent arms.
2. When ready, the chair is to be removed so that he/she is hanging with the chin above the bar and the arms supporting the body weight. Once the chair is moved the counter starts a stopwatch and keeps it running until the person can no longer keep his/her chin above the bar. Record the total time that the person held the hanging position.



PRUDENTIAL FITNESSGRAM STANDARDS FOR HEALTHY FITNESS ZONE*

*The number on the left indicates the lower end of the Healthy Fitness Zone. The number on the right is the upper end of the HFZ.

If your test score falls within the range of scores below, you are considered to be within a healthy evaluation for your age group. If you are not within the healthy range, set a goal for yourself and progressively work to improve in that health-related area. If you need help, see your physical education instructor.

FEMALES

<u>Age</u>	<u>Push-Ups</u> (Upper body strength)	<u>Ab-Curls</u> (Abdom. endurance)	<u>Sit/Reach</u> (Flexibility)	<u>P.A.C.E.R.</u> (C-V Fitness)
14	7-15	25-48	10-12	18-44
15	7-15	30-48	12-14	23-50
16	7-15	30-49	12-14	28-56
17+	7-15	30-58	12-14	34-61

	<u>Mile-Run</u> (C-V Fitness)	<u>1.5 Mile Walk</u> (C.V. Fitness – Our Norms)
14	11:00-8:30	22:00-19:30
15	10:30-8:00	22:00-19:30
16	10:00-8:00	21:30-19:00
17	10:00-8:00	21:30-19:00

MALES

<u>Age</u>	<u>Push-Ups</u> (Upper body strength)	<u>Ab-Curls</u> (Abdom. Endurance)	<u>Sit/Reach</u> (Flexibility)	<u>P.A.C.E.R.</u> (C.V. Fitness)
14	14-30	25-62	8-10	41-80
15	16-35	30-75	8-10	46-85
16	18-35	30-72	8-11	52-90
17+	18-35	30-72	8-11	57-94

	<u>Mile Run</u> (C-V Fitness)	<u>1.5 Mile Walk</u> (C.V. Fitness – Our Norms)
14	9:30-7:00	22:00-19:30
15	9:00-7:00	22:00-19:30
16	8:30-7:00	21:30-19:00
17+	8:30-7:00	21:30-19:00

2001-2002 Results

Pre-(Post)

AB CUMUS	AGE	PUSH-UPS	SIT & REACH	MILE RUN	PACER	1.5 MILE WALK
AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES
14	14	18(19)	14	9:21(9:02)	14	21:21(20:57)
15	15	17(23)	15	9:21(8:39)	15	21:06(20:10)
16	16	20(22)	16	8:43(8:16)	16	21:00(20:55)
17+	17+	19(20)	17+	9:28(8:45)	17+	21:41(20:50)
AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES
14	14	27(33)	14	8:04(7:19)	14	21:00(N/A)
15	15	34(39)	15	7:38(7:19)	15	21:59(N/A)
16	16	39(44)	16	7:25(7:18)	16	21:20(24:31)
17+	17+	43(48)	17+	7:15(7:14)	17+	21:20(N/A)

2002-2003 Results

Pre-(Post)

AB CUMUS	AGE	PUSH-UPS	SIT & REACH	MILE RUN	PACER	1.5 MILE WALK
AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES
14	14	20(25)	14	9:33(9:05)	14	21:32(21:04)
15	15	18(24)	15	9:51(9:34)	15	21:28(21:11)
16	16	19(22)	16	8:49(8:49)	16	21:10(20:37)
17+	17+	21()	17+	8:53()	17+	21:26()
AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES
14	14	29(36)	14	7:45(7:15)	14	22:04(21:51)
15	15	33(39)	15	7:46(7:42)	15	22:08()
16	16	38(42)	16	7:42(7:15)	16	22:08()
17+	17+	40()	17+	7:39()	17+	22:08()

2003-2004 Results

Pre-(Post)

AB CUMUS	AGE	PUSH-UPS	SIT & REACH	MILE RUN	PACER	1.5 MILE WALK
AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES	AGE FEMALES
14	14	17(23)	14	9:25(9:04)	14	22:03(20:58)
15	15	20(22)	15	9:49(9:18)	15	21:57(21:13)
16	16	18(23)	16	8:59(8:43)	16	21:44(20:55)
17+	17+	20(23)	17+	9:29(9:02)	17+	22:21(20:57)
AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES	AGE MALES
14	14	30(36)	14	8:00(7:36)	14	21:29()
15	15	33(40)	15	7:57(7:13)	15	21:58()
16	16	37(42)	16	7:33(7:23)	16	21:58()
17+	17+	40(44)	17+	7:28(7:36)	17+	22:47()

PHYSICAL EDUCATION

FINAL EXAM SAMPLE

RATING SCALE

- 5 Excellent
- 4 Very Good
- 3 Good
- 2 Fair
- 1 Poor

1. **Cardiovascular Endurance**

- a. Definition:

- b. It is evaluated by:

- c. Using the rating scale above, I rate myself (circle one) 1 2 3 4 5 in this component.
I rate myself this level because:

- d. In order to improve or maintain a healthy level of cardiovascular endurance, I ...

2. **Flexibility**

- a. Definition:

- b. It is evaluated by:

- c. Using the rating scale above, I rate myself (circle one) 1 2 3 4 5 in this component.
I rank myself this level because ...

- d. In order to improve or maintain a healthy level of flexibility, I ...

3. **Muscular Strength**

- a. Definition:

- b. It is evaluated by:

- c. Using the rating scale above, I rate myself (circle one) 1 2 3 4 5 in this component.
I rate myself this level because:

- d. In order to improve or maintain a healthy level of muscular strength, I ...

4. **Muscular Endurance**

- a. Definition:

- b. It is evaluated by:

- c. Using the rating scale above, I rate myself (circle one) 1 2 3 4 5 in this component.
I rate myself this level because:

- d. In order to improve or maintain a healthy level of muscular endurance, I

5. **Body Composition**

- a. Definition:

- b. It is evaluated by:

- c. Using the rating scale above, I rate myself (circle one) 1 2 3 4 5 in this component.
I rate myself this level because:

- d. In order to improve or maintain a healthy level of body composition, I

SAMPLE FINAL EXAM MALES

Sit ups (15 Pts)

Fr/So		Jr/Sr	
72+	= 15	80+	= 15
63-71	= 14	70-79	= 14
54-62	= 13	62-69	= 13
45-53	= 12	55-61	= 12
36-44	= 11	50-54	= 11
30-35	= 10	40-49	= 10
≤ 29	= 9	≤ 39	= 9

Sit and Reach (10 Pts)

Fr/So		Jr/Sr	
13+	= 10	13+	= 10
11-12.5	= 9	11.5-12.5	= 9
9-10.5	= 8	10-11	= 8
7.5 - 8.5	= 7	8.5-9.5	= 7
≤ 7.0	= 6	≤ 8.0	= 6

Mile Run (15 pts) add 10 to score for 25 pt test

Fr/So		Jr/Sr	
6:30	= 15	6:30	= 15
6:31-6:45	= 14	6:31-6:45	= 14
6:46-7:00	= 13	6:46-7:00	= 13
7:01-7:15	= 12	7:01-7:15	= 12
7:16-7:30	= 11	7:16-7:30	= 11
7:31-7:45	= 10	7:31-7:45	= 10
7:46-8:15	= 9	7:45-8:00	= 9
≤ 8:16	= 8	8:01-8:15	= 8
		8:16-8:30	= 7
		≤ 8:31	= 6

Push ups (15 pts)

Fr		So		Jr/Sr	
35	= 15	37	= 15	40	= 15
30-34	= 14	32-36	= 14	35-39	= 14
25-29	= 13	27-31	= 13	30-34	= 13
20-24	= 12	22-26	= 12	25-29	= 12
15-19	= 11	17-23	= 11	20-24	= 11
10-14	= 10	12-16	= 10	15-19	= 10
≤ 9	= 9	≤ 11	= 9	≤ 14	= 9
10-14	= 10	12-16	= 10	15-19	= 10

Pacer(15 pts) Double Score for 30 pt Test

Fr/So/Jr/Sr	
90	= 15
80-89	= 14
70-79	= 13
60-69	= 12
50-59	= 11
40-49	= 10
≤ 39	= 9

Optional Tests

12 Min Treadmill Jr/Sr

1.75	= 30	1.45	= 24
1.70	= 29	1.40	= 23
1.65	= 28	1.35	= 22
1.60	= 27	1.30	= 21
1.55	= 26	1.25	= 20
1.50	= 25	1.20	= 19

1 ½ Mile Run

Jr/Sr	
9:00	= 25
9:01-9:15	= 24
9:16-9:30	= 23
9:31-9:45	= 22
9:46-10:00	= 21
10:01-10:15	= 20
10:16-10:30	= 19
10:31-10:45	= 18
10:46-11:00	= 17

2 Mile Run

Jr/Sr	
15:00	= 25
15:01-15:15	= 24
15:16-15:30	= 23
15:31-15:45	= 22
15:46-16:00	= 21
16:01-16:15	= 20
16:16-16:30	= 19
16:31-16:45	= 18
16:46-17:00	= 17

****Each Individual Teacher Reserves the right to make accommodations or adjustments to this scale. It is only a SAMPLE of a final exam.**

SAMPLE FINAL EXAM FEMALES

Sit ups (15 Pts)

<u>Fr/So</u>		<u>Jr/Sr</u>	
60+	= 15	65+	= 15
55-59	= 14	60-64	= 14
50-54	= 13	55-59	= 13
45-49	= 12	50-54	= 12
40-44	= 11	45-49	= 11
35-39	= 10	40-44	= 10
≤ 34	= 9	≤ 39	= 9

Sit and Reach (10 Pts)

<u>Fr/So</u>		<u>Jr/Sr</u>	
13+	= 10	14+	= 10
11-12.5	= 9	12-13.5	= 9
9-10.5	= 8	10-11.5	= 8
7.5 - 8.5	= 7	8.0-9.5	= 7
≤ 7.0	= 6	≤ 7.5	= 6

Mile Run (15 pts) add 10 to score for 25 pt test

<u>Fr/So</u>		<u>Jr/Sr</u>	
8:00	= 15	7:45	= 15
8:01-8:30	= 14	7:46-8:15	= 14
8:31-9:00	= 13	8:16-8:30	= 13
9:01-9:30	= 12	8:31-8:45	= 12
9:31-10:00	= 11	8:46-9:00	= 11
10:01-10:30	= 10	9:01-9:15	= 10
10:31-11:00	= 9	9:16-9:30	= 9
≤ 11:01	= 8	9:31-10:00	= 8
		10:01-10:15	= 7
		10:16-10:45	= 6
		≤ 10:46	= 5

Push ups (15 pts) Add 10 to score for 25 pt test

<u>Fr/So</u>		<u>Jr/Sr</u>	
25	= 15	25	= 15
20-24	= 14	20-24	= 14
17-19	= 13	17-19	= 13
14-16	= 12	14-16	= 12
10-13	= 11	10-13	= 11
5-9	= 10	7-9	= 10
≤ 4	= 9	≤ 6	= 9

Pacer(15 pts) Double Score for 30 pt Test

<u>Fr/So</u>		<u>Jr/Sr</u>	
70	= 15	75	= 15
60-69	= 14	65-74	= 14
50-59	= 13	55-65	= 13
45-49	= 12	50-54	= 12
35-39	= 11	45-49	= 11
30-34	= 10	40-44	= 10
≤ 29	= 9	≤ 39	= 9

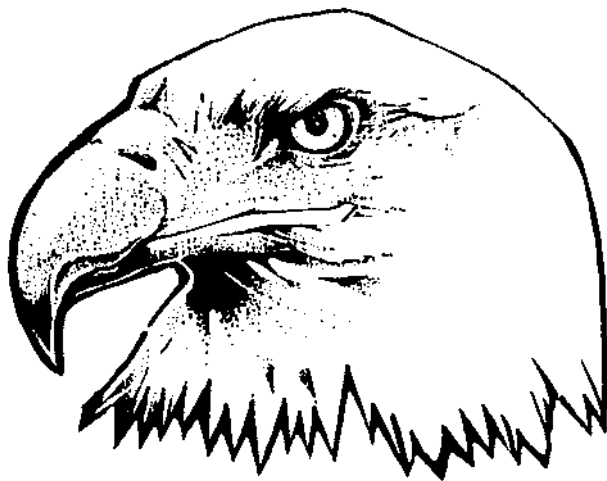
1 ½ Mile Walk

<u>Fr/So</u>		<u>Jr/Sr</u>	
20:00	= 25	18:30	= 25
20:01-20:30	= 24	18:31-19:15	= 24
20:31-21:00	= 23	19:16-20:00	= 23
21:01-21:30	= 22	20:01-20:30	= 22
21:31-22:00	= 21	20:31-21:00	= 21
22:01-22:30	= 20	21:01-21:30	= 20
22:31-23:00	= 19	21:31-22:00	= 19
≤ 23:01	= 18	22:01-22:30	= 18
		22:31-23:00	= 17
		≤ 23:01	= 16

****Each Individual Teacher Reserves the right to make accommodations or adjustments to this scale. It is only a SAMPLE of a final exam.**

FINAL EXAMINATION POLICY

1. All students shall participate in a final evaluation in each course at the conclusion of each semester. The purpose of the final evaluation is to assess the student's mastery of course objectives.
2. The final evaluation of course mastery shall consist of one or more of the following formats:
 - a. Formal written in class examination
 - b. Take-home examination
 - c. Creative product (written, constructed, or performed)
 - d. Oral examination
 - e. Other forms of evaluation
3. Final examination shall be administered on the designated days at the end of each semester.
4. The grade received on a final evaluation shall appear in the "Final Examination" column of the report card.
5. Each department shall establish guidelines for the percentage a final evaluation grade contributes to the semester grade. The percentage may be up to twenty (20) percent.



ADAPTIVE PHYSICAL EDUCATION

INTRODUCTION

Adaptive Physical Education is designed to meet the needs of those students who are unable to participate and profit from the offerings made to the student body in the regular physical education classes.

The basic intent of our program is improvement of body mechanics and general physical condition through motor activity. We are attempting to create an atmosphere in which a variety of students with limited physical capabilities and/or emotional problems may participate and derive benefits which they could not receive in the regular program of physical education.

Only selected students who cannot participate to their advantage in our regular program because of a medical excuse, disability, injury, low physical fitness, or poor body mechanics, will be provided the opportunity of this program. Emphasis will be placed on the change or improvements in function or structure by means of selected exercises. Stress will be given to the development of motor ability and physical fitness in those students who are below the desired level.

The following are some basic guidelines that should be adhered to by the instructor:

1. Constant teacher communication and rapport between students, parents, physicians, administration and other faculty members must be maintained.
2. The nature, scope, objectives and flexibility of the program must be made available to all who are concerned, especially the students.
3. Medical assistance must be obtained in identifying students and establishing their individualized programs.
4. All available personnel, equipment and facilities must be used to better implement the total program.
5. Proper accumulative records must be kept up-to-date for all students.
6. Every effort must be made to place each student in his own individual program.
7. Initial and periodic conferences must be held between each student and the teacher; records of each conference should be maintained.
8. Student leaders and student aids should be properly used when available.
9. The ultimate aim of the program is to return as many students as possible to the regular physical education program.

Some criteria that will be used in selection of various sports and games will be:

- a. those that apply to the physician's recommendations;
- b. those that are within the limits of the students' capabilities;
- c. those that will apply to the largest number of students;
- d. those that have carry-over values that stress the importance of lifetime sports participation
- e. those that provide individual, dual, group and team participation.

Objectives:

1. To accomplish needed correction where possible.
2. To aid in social adjustment and development.
3. To protect the condition of the disability from getting worse.
4. To make the student aware of his/her limitations while arranging a program within his/her ability.
5. To offer opportunities to develop recreational skills with carry-over values.

Criteria for Student Entrance:

1. Medical recommendations from the student's personal physician.
2. Consultation with parents whenever possible.
3. Individual interviews between instructor and student.
4. Consultation with previous physical education teachers and guidance counselors.
5. Observation of student's school records by the instructor.

Program Specifics:

1. Instruction will take place through a combination of formal or group, and informal or individual methods. Some activities will be done together as a total class group while others will be done individually and independently.
2. The class will be conducted co-educationally for the most part, but will also have areas where the boys and girls will be doing separate activities.
3. Every class period will contain periods of time for warm-up exercises, developmental exercise programs, and when applicable adapted sports and games.
4. The individual exercise program will be utilized when possible under the directions of the physician and selected by the instructor.
5. Not all students will be able to participate in every activity in the sports and games area, but every student will be offered some program that he/she may participate in. Much concern will be given to the selection of activities that provide opportunities for success and progression along with carry-over value. Also, those sports and games that stress basic motor skills will be used for those that can participate.



CARL SANDBURG HIGH SCHOOL

CONSOLIDATED HIGH SCHOOL DISTRICT 230

Department of Physical Education Adaptive P.E. Request Form

Adaptive Physical Education is designed to meet the needs of those students who cannot participate in our regular program because of a medical excuse, disability, injury, low physical fitness or poor body mechanics. Emphasis is placed on change or improvement in function or structure by means of selected exercises.

Participation in Adaptive P.E. does not eliminate the need for regular physical therapy, but does serve as an alternative to the traditional P.E. program.

Please complete the lower portion of this form. If the student's schedule allows, he/she will be assigned to an Adaptive P.E. class for the time indicated.

Name of Student _____ Grade _____

Individualized program should begin on _____ until _____
(date) (date)

Diagnosis:

Restrictions:

Comments:

Physician's Signature _____

Phone _____

Date _____

WELLNESS CONCEPTS - FRESHMEN

Freshmen Physical Education Objectives

Goal Setting

Team Building

Warm-Up, Cool-Down, Injury Prevention and Treatment

Resting and Target Heart Rate

Wellness

Health Related Physical Fitness

- 1. Flexibility**
- 2. Cardiovascular Endurance**
- 3. Muscular Endurance**
- 4. Muscular Strength**
- 5. Body Composition:**
 - a. Futrex**
 - b. Body Composition Assessment**

How To Lose Body Fat



FRESHMAN PHYSICAL EDUCATION

OBJECTIVES

As a result of Freshman Physical Education the student will be able to:

1. Demonstrate responsible behavior by being prepared each day (proper attire and shoes) active participation in all activities, a cooperative attitude and appropriate social behavior (polite, attentive, and respectful).
2. Demonstrate skills in at least three lifelong, recreational activities. This includes a variety of activities; swimming, touch football, volleyball, basketball, softball, weight training, etc.
3. Demonstrate various movement concepts and applications (e.g. Lay-up, bump-set, hitting a softball, throwing a spiral, catching an object, etc.)
4. Identify and apply basic strategies in selected games and activities.
5. Identify and apply successful team-building skills in physical activity (e.g. roles of team members, communication, supporting teammates).
6. Successfully fulfill the swimming requirement for the course (including; basic swimming strokes, basic safety skills, and in the water time requirement).
7. Participate in the wellness-concepts unit (3 week unit) and achieve 70% or better on combined written examinations.
8. Improve Health-Related Fitness levels in at least three components through daily activity increases (progressive overload).
9. List and define the Health-Related Fitness components and how they are evaluated.
10. Complete Final Examination (20% of grade).
11. Strive to achieve the minimal fitness standards according to the Institute for Aerobic Research in Dallas, Texas. These scores are not superior scores. They represent the level of fitness a child should have in order to achieve the benefits of good health.

GOAL SETTING

1. Set goal(s) that are high enough so they present a challenge, but are within reach.
2. The goal must be one that is observable. This is a “goal-picture” or “end-result” picture.
3. You must constantly remind yourself of the goal or goals. Post this goal or goals somewhere you will frequently see it/them.
4. Sign this sheet as though it is a contract - a personal commitment to yourself.
5. Set a deadline to achieve this goal.
6. If you attain the goal before the predicted deadline, discuss an updated goal with your instructor.

GOAL SETTING

I CAN/WILL _____

DEADLINE DATE _____

GOAL #1 _____

I CAN/WILL _____

DEADLINE DATE _____

GOAL #2 _____

IN ORDER TO ACHIEVE GOAL #1, I WILL NEED TO: _____

IN ORDER TO ACHIEVE GOAL #2, I WILL NEED TO: _____

TEAM BUILDING

At the Freshman and Sophomore level in physical education, students will discuss what it means to be a member of a team. The characteristics of effective teams and ineffective teams will also be discussed.

EFFECTIVE TEAM:

1. Have a purpose - goal oriented
2. Informed atmosphere (comfortable and supportive)
3. Productive together
4. Communicate effectively with each other
5. Respect each other
6. Willingness to listen
7. No one cares who gets the credit for success.
8. Team leader knows where to go.

INEFFECTIVE TEAM:

1. No purpose in mind
2. Uncomfortable atmosphere (non-supportive)
3. Poor communication among members
4. Not productive - do not work together
5. Finger pointing (members blame each other)
6. Put downs are common place
7. Do not work together to achieve success
8. The ineffective team lacks leadership and direction.

WARM-UP, COOL-DOWN, INJURY PREVENTION AND TREATMENT

WARM-UP:

The method of preparing muscles and the heart for an activity.

PURPOSES OF A WARM-UP:

1. Elevate the heart rate gradually
2. Raise muscle temperature
3. Increase respiration
4. Stretch the ligaments and tendons for greater flexibility and to prevent injury
5. Psychological effect - it helps the individual to achieve a mental state of readiness

A WARM-UP CONSISTS OF:

1. Jogging or easy running
2. Static flexibility -a relaxing, non-bouncing stretch in which the participant breathes normally (does not hold breath) and holds the position for 10-60 seconds. There should not be pain during the stretching.
3. General body-conditioning exercises (calisthenics)
4. Specific exercises to the activity

GENERAL PRINCIPLES:

1. Start the warm-up at a moderate pace and increase the tempo as the body temperature and cardiovascular activity increases.
2. Performance improves with warm-up because muscles perform more efficiently when warm.

As the body heat increases:

- a. The muscles contract faster and with more force
- b. Ligaments and tendons become more pliable
- c. Nerves conduct impulses faster

THE RIGHT WAY TO WARM UP:

It is a crisp winter day, and before you begin your exercise routine you lean against your favorite tree to begin stretching. This is the way you always start off, and you're convinced it's the right way. Well, you're wrong! Athletes and doctors are now convinced that stretching cold muscles, especially on a cold day, can lead to injuries.

The best way to prepare for jogging, bicycling, sand volleyball or any other exercise is to warm up the muscles gently, and after that do your stretches. Dr. Fred Allman Jr., Past President of the American College of Sports Medicine, recommends a very mild form of exercise, something that will slowly cause the body to warm up - such as walking at a rapid pace, jogging at a slow pace, running in place, or riding a stationary bicycle.

There are sound physiological reasons for getting yourself warmed up for stretching. A warm-up period increases the flow of blood, raises the temperature of the muscles and tendons and increases their flexibility, and releases synovial fluid, the body's natural lubricant for the joints. The heart also needs some time to get ready for stretching. Vigorous stretching without a gradual warm-up leads to temporary abnormalities in blood flow and blood pressure that can be dangerous, especially for middle-aged exercisers. Wearing heavy sweat clothes does not help you warm-up. Dress for the weather, that is if it's cold, wear warm sweats; if it's hot, wear shorts. Keeping a warm-up suit on while exercising on a hot day defeats the body's cooling mechanisms and does no good.

Not only should you warm-up before stretching, but you should also think about the way you are stretching. The old keep your knees stiff and touch your toes stretch is out! It overextends the knees and back. Any kind of bouncing for cold muscles and joints to get them loose is very bad since bouncing actually tightens cold muscles. The hamstring muscles located on the back of the upper leg need to be stretched for most activities and also have an effect on low back flexibility. In the standard touch your toes example, bend as low as you can, without locking your knees until you feel your hamstrings and back muscles start to stretch - and hold that position for 10-60 seconds without pain and not fighting the muscle tissue. (Don't forget to breath in a relaxed, slow and gentle manner.) When you stand up, bend your knees to ease the load on the back. Repeat this several times until you can reach the floor without strain.

COOL-DOWN

The cool-down is the warm-up process in reverse. It allows the muscles to release metabolic wastes built up during activity and allows the body functions to return to normal.

PURPOSE OF A COOL-DOWN:

1. Allows you to gradually diminish the intensity which follows work
2. Permits the return of circulation and other body functions to normal
3. Eliminates the pooling of blood following the abrupt stopping of the activity
4. Speeds up the removal of muscle waste products
5. Helps eliminate cramps and stiffness

A COOL-DOWN CONSISTS OF:

1. Light jogging at a slow pace
2. Slow static flexibility
3. Slow and easy activity movements

GENERAL PRINCIPLES OF COOL-DOWN:

1. The key is not to stop suddenly, but gradually slow down your activity.
2. One of the best indications that your cool-down has worked is when sweating has stopped.

INJURY TREATMENT:

Treatment of any injury means R.I.C.E. or REST, ICE, COMPRESSION AND ELEVATION for a minimum of 24 hours after the injury took place. NEVER use heat within this time period as it only causes more bleeding and increases swelling. Use the following measures:

REST - Rest the injured area. Limit the amount of activity until the swelling is relieved through the following procedures.

ICE - Put ice wrapped in a towel or plastic bag over the injured area. Keep moving it every five minutes to avoid frostbite and continue for up to 30 minutes two or three times daily for the first day or two following the injury. This will help reduce swelling and internal bleeding.

COMPRESSION - Gently (not too tight) wrap an elastic bandage around the injured area. Numbness, cramping or additional pain means the bandage is too tight. To limit swelling and promote healing, leave the bandage on for 30 minutes. Remove it for fifteen minutes to permit circulation and repeat this procedure over a three hour period several times during the first hour after the injury.

ELEVATION - Raise the injured leg or arm on a pillow above the level of the heart. This helps drain excess fluids, limits internal bleeding and clears away injured tissue. For the first few days following injury, continue elevating as much as possible even while sleeping.

RESTING AND TARGET HEART RATE

The heart is a muscle and like any other muscle must be overloaded to get stronger. Aerobic activities such as running, jogging, swimming, cross-country skiing and jumping rope force larger than usual amounts of oxygen into the lungs and from there into the bloodstream for the body to use. The best indication of an efficient heart is a low resting heart rate. The lower the resting heart rate, the stronger the stroke volume, or the amount of blood pumped with each heart beat.

Dr. Kenneth Cooper, who wrote the books about aerobics (with oxygen), has done years of research on exercise and the heart. The lowest resting heart rate he has ever evaluated was Hal Higdon, a marathon runner who's resting heart rate was 28 beats per minute! The average resting heart rate is 70-90 beats per minute. The heart of a physically fit person, with a resting heart rate of 50, beats 9,512,000 times less per year than an average person's heart with a resting heart rate of 70 beats per minute. The better shape you are in, the lower your resting heart rate will be.

Of all the vital signs that physicians consider when evaluating patients, pulse ranks number one. The beating heart has always been the most basic symbol of life and the most easily measured indicator of what's going on in the body.

The best way to take your pulse is by placing two fingers over the radial artery of the wrist. You can locate the radial artery by turning your palm up, feeling for the bone at the outside (thumb side) of the wrist, and then moving your finger pressure just inside this bone. Do not use the thumb to take your pulse because it has a small artery of it's own.

The ideal time to take a true resting pulse is when you wake up in the morning before even getting out of bed. Using a clock to time 60 seconds, and find your pulse at the radial artery. Count your pulse for the entire 60 seconds and record below. If you continue to work on your cardiovascular system, (walking, jogging, running, long distance swimming, jumping rope, cross country, skiing, full court basketball, etc...) your resting pulse will become lower.

RESTING PULSE RATE

DATE	WHERE TAKEN HOME - SCHOOL	TIME TAKEN	RESTING PULSE
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

HOW HARD SHOULD I EXERCISE?

You can find out how hard to exercise by keeping track of your heart rate. Your maximum heart rate is the fastest your heart can beat. It is usually considered to be 220 minus age. Exercise about 80 percent of the maximum heart rate may be too strenuous unless you are in excellent physical condition.

The best activity level is 65 to 80 percent of this maximum rate. This 65 - 80 percent range is known as your target heart rate.

Target HR should be 65-80% of Max HR depending on the level of fitness:

Example 220-15 = Max HR of 205

.65 x 205 = 133.25

.80 x 205 = 164

Target HR should be between 133 and 164!!

TARGET HEART RATE - CALCULATING YOUR OWN

Using the formula from above, calculate your Target Heart Rate and record it below:

220 - AGE = A

MULTIPLY .65 TIMES (A) =

MULTIPLY .80 TIMES (A) =

DATE = _____

TARGET HEART RATE = _____

DATE = _____

TARGET HEART RATE = _____

When you begin your exercise program, aim for the lower end of your target. As you get into better shape you can gradually build up to a higher work load.

Monitoring Pulse Rate

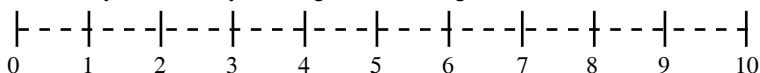
1. When you stop exercising, quickly place your index finger and your third finger lightly over the soft part of your wrist.
2. Count your pulse for 15 seconds and multiply by four.
3. If your pulse is below your target rate, exercise a little harder next time. If you are above your target, exercise a little easier. If the pulse rate falls within your target, you are right where you belong for a training effect to occur.

How Do I Know If I'm Working Too Hard?

It is important to exercise at a comfortable pace. When jogging or walking briskly, you should be able to keep up a conversation comfortably. If you do not feel normal again within ten minutes of stopping your exercise, you are pushing too hard.

BORG'S SCALE

A number of years ago, a scientist named Gunnar Borg developed a subjective scale to rate how hard you are exercising. Borg's scale was later modified using a range of 0 to 10. Using these numbers, you rate how hard you are exercising based on your feeling of fatigue. A rating of 0 would mean you are hardly working at all. A rating of 10 would mean all-out exhaustion.



What you should be feeling at each level is listed below.

0. This is the feeling you get at rest. There is no feeling of fatigue. Your breathing is not at all elevated. You will not experience this at all during exercise.
 1. This is the feeling you get working at your desk or reading. There is no feeling of fatigue. Your breathing is not elevated.
 2. This is the feeling you might get while getting dressed. There is little or no feeling of fatigue. Your breathing is not elevated. You will rarely experience this low level while exercising.
 3. This is the feeling you might get while slowly walking across the room to turn on the television. There is little feeling of fatigue. You may be slightly aware of your breathing, but it is slow and natural. You may experience this right in the beginning of an exercise session.
 4. This is the feeling you might get while slowly walking outside. There is a very slight feeling of fatigue. Your breathing is slightly elevated but comfortable. You should experience this level during the initial stages of your warm-up.

5. This is the feeling you might get while walking briskly to the store. There is a slight feeling of fatigue. You are aware of your breathing and it is deeper than in level 4. You should experience this level at the end of your warm-up.
 6. This is the feeling you might get when you are walking somewhere and are very late for an appointment. There is a general feeling of fatigue, but you know that you can maintain this level. Your breathing is somewhat deep and you are aware of it. You should experience this level in the transition from your warm-up to your exercise session and during the initial phase of learning how to work at level seven or eight.
 7. This is the feeling you might get when you are exercising vigorously. There is a definite feeling of fatigue, but you are quite sure you can maintain this level for the rest of your exercise session. Your breathing is deep and you are definitely aware of it. You can carry on a conversation, but you would probably prefer not to. This is the baseline level of exercise that you will maintain in your exercise sessions.
 8. This is the feeling you might get when you are exercising very vigorously. There is a very definite feeling of fatigue, and if you asked yourself if you could continue for the remainder of your exercise session, you think you could, but are not 100 percent sure. Your breathing is very deep, you can still carry on a conversation, but you don't feel like it. This becomes the feeling you should experience only after you are comfortable reaching a level seven and are ready for a more intense workout. This is the level that produces rapid results, but you must learn how to maintain it. Exercising at this level is difficult for many people.
 9. This is a feeling that you would experience if you were exercising very, very vigorously. You would experience a very definite feeling of fatigue and if you asked yourself if you could continue for the remainder of your exercise session, you probably could not. Your breathing is very labored and it would be very difficult to carry on a conversation. This is a feeling you may experience for short periods when trying to achieve a level 8. This is a level that many athletes train at and it is difficult for them. You should not be experiencing a level 9 on a routine basis, and should slow down when you do.
 10. You should not experience a level 10. This is the feeling you would experience with all-out exercise. This level cannot be maintained for very long, and there is no benefit in reaching it.
- Take the time to learn each level. Remember, you are striving to achieve a level 7 or 8 during your exercise session. Level 7 equates to approximately 70 percent of your maximum heart rate, while level 8 equates to about 80 percent.

WELLNESS

WHAT IS WELLNESS?

Wellness is defined as an active process through which an individual becomes aware of and makes choices toward a healthy lifestyle. The ultimate responsibility for wellness of an individual rests with that person...not with anyone or anything else. The key word is CHOICE and the basis for the concept is SELF RESPONSIBILITY. You can change how you feel and look if you want to.

A wellness approach to life is a total health plan concerned with both mind and body. At one end of the spectrum you have a high level of wellness. At the other end, you have premature death. It is a continuum. You make choices every day that move you either closer to wellness or closer to illness and premature death. The Wellness Continuum is located in the Sophomore Wellness section of this book. Scientific and medical research have provided us with certain risk factors concerning exercise, diet, health and stress which should influence our lifestyle.

MAJOR MEDICAL PROBLEMS IN THE UNITED STATES

In the United States, we have a high standard of living. In many respects this is great and yet in other ways it has created many problems. Our affluent society depends on machinery, power tools, equipment and cars to do most of our work. Television, theaters, spectator sports take a great deal of our leisure time. Because of our way of life the American male's life expectancy is 74 years of age. This ranks us 37th among other civilized nations! These sedentary ways, along with our poor eating habits, have brought about three of this country's greatest medical problems. Cardiovascular disease ranks as the number one health problem in the United States. 500,000 Americans die each year from heart attacks. "Cardio" is another word for heart and "vascular" refers to the blood vessels. Scientific studies have shown that active people have less heart disease and are less likely to die from heart attacks than inactive people. Some symptoms of heart disease start to develop when people are in their teens. For this reason, it is important to develop and maintain cardiovascular fitness early in life.

Another major medical problem in the United States is the fact that many Americans are overweight. Most studies indicate that at least one-third of the children and one-half of the adults in the United States are overweight. This problem stems from eating excessively, especially fast foods, lack of exercise, and eating junk food for snacks. This overweightness also places a great deal of stress on our heart and circulatory system.

Thirdly, and yet another significant medical problem, is low back pain. It is estimated that as many as 25 million Americans seek a doctor's care for backache. Estimates are that 8 out of every 10 people in the United States seeks a doctor's care for low back pain.

What is significant about these three tremendous medical problems including cardiovascular disease, overweightness, and low back pain is that they are all preventable. Diseases such as these are considered HYPOKINETIC DISEASES.

HYPOKINETIC DISEASE

Hypokinetic Diseases are caused in part by a lack of physical exercise or inactivity. In essence, these diseases can be controlled in two ways—regular exercise and good nutrition.

LIFESTYLE GOALS

The key to a Wellness approach is that we do not have to die as early as we do. We can control the quality of our life by proper diet and nutrition, regular exercise, controlling the use of cigarettes and alcohol and learning to cope with stress. If we learn what we can about these aspects of Wellness and adjust our lifestyle, we can, to a certain degree, control the quality of our lives.

It is really up to you. Do you want to be a casualty, a heart attack victim? The best health insurance you can get is preventive medicine. You can do more for yourself than anyone. The important thing to do is to learn now while you are young, what the health risks are and adjust your lifestyle. It will be easier for you to adjust now than in later years.

1. Everyone is unique in their own way. Do not compare yourself to other students. Strive to improve in your own way. Making lifestyle changes or forming new habits are not easy tasks. Be patient, set realistic goals and be regular.
2. Heredity - The lean, athletic body is not for everyone. Heredity affects how you look so don't expect unrealistic changes. Make the best of what you've got.
3. Leisure time or available free time from work responsibility is continuing to increase. Recent research states that children without cable television spend 6 hours per day watching T.V. while those with cable watch 8 hours of television per day.
4. The highest priority for corporation is back care. Most injuries that occur or sick days taken are due to back related problems Eight out of ten people in the U.S. suffer from low back pain at some point in their lives.
5. The number one killer in the United States continues to be cardiovascular disease.

The following facts are from the American Heart Association:

FACT - In recent years, heart and blood vessel diseases killed nearly 1 million Americans, almost as many as cancer, accidents, pneumonia, influenza and all other causes of death combined.

FACT - Almost one in two American's dies of cardiovascular disease.

6. The F.I.T.T. principle must be understood in order to get physically fit and remain that way. 'F' refers to the frequency of exercise which should be regular and take place three to five times per week. 'I' refers to the intensity of exercise and is based on the theory of overloading the body. 'T' refers to the time or duration of exercise and this should be 15-30 minutes in your target pulse rate. (65% - 80% of maximum heart rate (220) minus your age). 'T' refers to the type of exercise that you took part in (aerobic or cardiovascular, strength or muscular endurance exercise).

HEALTH RELATED PHYSICAL FITNESS

PHYSICAL FITNESS - YOUR LIFE DEPENDS ON IT

Physical fitness is defined as the ability to carry on everyday activities without undue stress or fatigue, while remaining able to respond to the increased demands of an emergency. It also includes the ability to pursue recreational activities without pain, stress, or exhaustion. There are five aspects of physical fitness: body composition, muscular strength, muscular endurance, flexibility and cardiovascular fitness.

It's a popular belief that sports are also a good way to become more physically fit. While sports may be fun and relaxing, they often come up short as a method of achieving fitness. The relationship between sports and fitness should be that you get in shape to play your sport, rather than playing to get in shape. Good athletes rarely get in shape by playing. They do additional fitness exercises such as running, weight lifting, calisthenics, and stretching.

This is not to say that sports have no fitness value. However, the value depends upon how hard you play the sport, your skill, your fitness level and your competitive nature. Another problem is that we don't usually play most sports often enough to create an improvement in fitness.

Fitness is a very individual quality. We each possess varying degrees of fitness in each component and, therefore, have quite different fitness needs. No single activity of exercise plan can be best for everyone.

Fitness has many rewards. You'll feel better, look better, and perform better. But fitness is not easy to achieve. You must work at it. You can't get there lying down or sitting. Nor can it be achieved in five minutes a day or 30 minutes a week. It does require self-discipline and you will probably have to perspire, but if you start slowly, are realistic, and have some fun while you're working, the benefits are there for the taking.

COMPONENTS OF PHYSICAL FITNESS BODY COMPOSITION

The percentage of body weight that is fat tissue.

Muscular Strength

The amount of force a muscle can exert. This is usually measured by the amount of weight that can be moved in a single effort.

Muscular Endurance

The ability to use the muscles over an extended period of time without fatigue.

Flexibility

The measure of how limber you are; the ability to move the body through a full range of motion.

Cardiovascular Fitness

The ability of the heart, blood vessels, blood and lungs to deliver oxygen to the body.

FLEXIBILITY

WHAT IS IT?

At various points in the body, bones meet to form joints. These include the knees, ankles, hips, wrists, elbows and shoulders. Flexibility is the ability to move these joints and your muscles fully.

HOW IS FLEXIBILITY IMPROVED?

Flexibility is improved by stretching muscle tissue in a slow, gentle manner. As you stretch out, feel the pull of stretching in the heart of the muscle, not near the joint itself. To accomplish this, stretching must be done slowly without any bounce or forceful movements. Before stretching, it is wise to engage in a general warm-up such as jogging or calisthenics in order to increase body temperature and help to prepare the muscles for stretching out.

HOW DO YOU STRETCH OUT?

Stretch only to the point where a pulling sensation is felt throughout the muscle and remain in that position 10 - 60 seconds while trying to relax the muscle.

WHY IS FLEXIBILITY IMPORTANT?

As a factor in physical fitness, everyone needs some degree of flexibility. Everyone, no matter what profession, will feel better if they are relatively flexible. It is also important to understand how to safely warm-up, stretch out and cool-down in order to avoid injury while participating in leisure activities.

BASIC TECHNIQUES OF STRETCHING

1. Don't go too far at the start. Get a slight stretch and increase the stretch as you feel yourself relax.
2. Do not bounce. Stretch and hold it.
3. Of primary importance — learn how to stretch your body. Flexibility is only one of the many by-products of stretching. Do not try to be flexible. Just learn the proper way to stretch and the flexibility will come with time.
4. Breathing is important. Do not stretch to a point where you can't breathe normally. Breathe naturally—exhale as you bend forward. Develop rhythmical, slow breathing.
5. Hold a stretch in a fairly comfortable position until you feel yourself relax.
6. Think about the area being stretched. Feel the stretch. If your body is vibrating from too much of a stretch, ease up. You cannot relax if you are straining.

CARDIOVASCULAR ENDURANCE

The physically fit person lives longer, performs better, and participates more fully in life.

Many people do not get the proper amount of exercise they need. Each year over 500,000 deaths occur from heart attacks. The risk of death from heart disease is two to three times greater for the inactive person. Lack of exercise along with obesity, diabetes, excess cholesterol, high blood pressure and habitual smoking is a major risk of coronary artery disease. Fortunately, this can be changed. As the level of activity goes up, the other factors go down. The American Medical Association has estimated that in America one-half of the adults and one-third of the children are overweight. The solution may not be just less food but more physical activity. It is well known that exercise increases the effectiveness of diet programs. Hypertension (high blood pressure) decreases in many people as a result of exercise programs as does the level of blood cholesterol.

The opportunity to train and begin your cardiovascular program is NOW. Your capacity to work will increase, you will be less tired at the end of the day, you will find a new spring in your step if you work at it.

The type of fitness that really counts involves the heart, lungs and circulatory system. This is called cardiovascular or aerobic fitness.

The heart, being a muscle, responds to training like any other muscle. In order to train any muscle you must push it beyond its normal load. This is an example of the overload principle.

As the heart beats at rest, only part of the blood is pushed out. The amount pushed out is referred to as stroke volume. As activity increases, the heart moves more blood into the vascular system. Of course, as the amount of blood is increased, the work load is also increased. This increased load is the stimulus which strengthens the heart muscle.

Your maximum stroke volume, or best overload probably occurs halfway between resting and maximum work. This means that if you exercise at this intensity, you will have an effective overload on your heart muscle. This allows a good training effect to take place without working so hard it becomes dangerous or uncomfortable.

In activities such as swimming, jogging, bicycling and walking, which encourage a free flow of blood back to the heart, the contraction of the heart muscle returns large volumes of blood to the heart. As the heart gets stronger, it pumps more blood and aerobic capacity increases. The more blood that flows brings more oxygen to the tissues, an increase in aerobic capacity, and the ability to do more work without fatigue.

MUSCULAR ENDURANCE

WHAT IS MUSCULAR ENDURANCE?

Muscular endurance is the ability of the muscles to work for long periods of time without getting fatigued. Muscular endurance differs from strength in that a person with good endurance allows the person to lift longer while strength allows the person to lift more. In order to move a refrigerator you would need strength. You would need muscular endurance to paint a large ceiling.

WHY IS MUSCLE ENDURANCE IMPORTANT FOR GOOD HEALTH?

People with adequate muscular endurance are less apt to have backaches or muscle soreness and/or injury. Good endurance also makes it easier for a person to have good posture. Also, if a person is alert, you are better able to cope with stress which is the physical, mental or emotional strain a person feels.

EVALUATING MUSCULAR ENDURANCE

1. Abdominal Muscle Endurance - Partial curl-ups (1 minute time limit)
2. Testing Arm Muscle Endurance - Push-ups (No time limit)
3. Testing arm and shoulder endurance - Pull-ups (No time limit)

INCREASING MUSCULAR ENDURANCE AND STRENGTH IN WEIGHT TRAINING

Perform many repetitions using an amount of weight you can continuously lift more than 8-12 repetitions. For example, doing 3 sets of 20 repetitions on the bench press would develop muscular endurance. Doing 4 sets of 6 repetitions would be a program to develop muscular strength.

HOW TO DEVELOP MUSCULAR ENDURANCE

1. Begin gradually. Too much exercise too soon can cause muscle soreness or injury. It takes muscles several weeks to get accustomed to exercising. When exercising, if you feel sore the next day you performed too hard the day before.
2. 25 repetitions for one calisthenic is enough for any exercise. If you wish to develop above average endurance you may want to perform more than 25 repetitions. Doing two sets of 25 push-ups with a rest in between is better than doing 50 push-ups all at once.
3. Perform the exercises slowly - perform each exercise with good form and correctly.
4. Move each muscle and joint through a full-range of motion. Moving your muscles and joints as far as possible will help keep you more flexible.

MUSCULAR STRENGTH

WHAT IS STRENGTH?

Muscular strength is the amount of force a muscle can exert one time.

WHY IS IT IMPORTANT TO HAVE STRENGTH?

1. Strength helps to reduce fatigue.
2. Strength can help prevent injuries and muscle soreness.
3. Strong back and abdominal muscles can help prevent low back pain, one of the greatest medical problems in the United States today. Eight out of every ten Americans seek medical advice for this problem!

OVERLOAD PRINCIPLE

Overload occurs when exercise is increased in intensity so that the demands of the body are not being met. As a result, an improvement in physical condition will take place. Overload can be accomplished in three ways:

1. Increasing the resistance or amount of work being done (lifting more weight than usual).
2. Increasing the speed of the repetitions or work (running a 6 minute mile as compared to a 9 minute mile).
3. Increasing the number of repetitions (doing 3 sets of 25 push-ups rather than one set of 25).

The increased stress is overload and after the body adapts to the increased demand it is no longer an overload. Then, you must perform a greater amount of work in order to overload.

HOW IS STRENGTH IMPROVED?

1. Calisthenics (exercises)
2. Weight Training program
 - a. repetitions - the number of times you lift a weight.
 - b. sets - one group of repetitions (for example, if you repeat an exercise 8 times, then ~~next~~ and do it 8 more times, you have completed 2 sets of 8 repetitions.

HOW IS STRENGTH TESTED?

A maximum lift (the highest amount of weight a person can lift one time) will measure strength of the certain lifts such as the pectoral muscles (bench press) and the deltoids (military press). See the Health-Related Fitness Testing section for the formula to measure strength of the pectoral muscles.

BODY COMPOSITION

The human body has three major structural components including fat, muscle and bone. Height and weight tables do not reflect body composition, a major characteristic of physical fitness. How much weight is not as important as our actual body composition. It is the objective of this lesson to give you an idea of how much fat you have in your body.

TESTS OF FATNESS

Underwater weighing and skinfold measurements are two good ways to measure fatness. Both of these methods, however, require special equipment. We are going to use the body composition analyzer, Futrex, in order to determine body fat. If you choose not to be measured, that is your choice. It is important not to be embarrassed or discouraged by this evaluation and certainly do not go on a crash diet. It is merely being done to help you understand the concept of body composition.

Exercise is very important in controlling the fat weight of your body. You can, through increased amounts of exercise alone, reduce the percentage of fat in your body. Many individuals with poor cardiovascular endurance will also have excessive body fat. Changes in body composition have generally not been observed unless frequency of exercise is at least three times per week and a duration of at least 20 minutes per session. These totals should be considered minimal criteria if the participant expects an improvement in body composition. Increasing physical activity is only one component of the complicated process of reducing body fat.

BODY COMPOSITION ASSESSMENT

Test Date: _____ Name: _____

Current Body Weight: _____ lbs.

Current Total Body Fat percentage: _____ %

Fat Weight: _____ lbs. Lean Weight: _____ lbs.

Total Body Percentage (%) Target Goal: _____ %

Total Body Weight Target Goal: _____ %

Recommended Percent Body Fat _____ %

Test Date: _____ Name: _____

Current Body Weight: lbs. _____ %

Current Total Body Fat percentage: _____ %

Fat Weight: _____ lbs. Lean Weight: _____ lbs.

Total Body Percentage (%) Target Goal: _____ %

Total Body Weight Target Goal: _____ %

Recommended Percent Body Fat: _____ %

RECOMMENDED BODY FAT PERCENTAGES

Body Type	Female	Male
Athlete	<17%	<10%
Lean	17-22%	10-15%
Normal	22-25%	15-18%
Above Average	25-29%	18-20%
Overfat	29-35%	20-25%
Obese	35+%	25+%

Although there is no official recommended Body Fat Table. The table to the left can be used as a guideline in developing healthy habits.

HOW TO LOSE BODY FAT

DIETARY CHANGES TO LOWER BODY FAT

Reduce your daily intake of fatty foods.

Use non-fat dairy products such as non-fat yogurt, cottage cheese and skim milk.

Use egg whites but avoid egg yolks.

Peanut butter, nuts, oils, dressings, gravies, sauces, and toppings are all usually high in fat.

Choose fish and poultry over red meat.

Avoid fried foods.

Skin poultry and trim fat from meat before cooking.

Eat your largest meals early in the day.

The old saying...breakfast like a king, lunch like a prince, and dinner like a pauper...is very true for fat loss.

Eat smaller, more frequent meals.

The body can easily digest and utilize a smaller meal.

You will have continuous energy throughout the day.

Your body will store fewer calories as fat.

Do not eat two to three hours before going to sleep because your body burns very few calories while sleeping, so anything you eat may be stored as body fat.

Drink 8 to 10 glasses of water each day.

AEROBIC ACTIVITY TO REDUCE BODY FAT

Do an aerobic activity at least four to six times per week for a constant duration of 25 to 50 minutes. Fat is not a primary energy source until after 20 minutes of aerobic activity. Examples of good fat burning activities are:

walking	treadmill
bike riding	jogging
aerobic dance	swimming

Pick two or three activities that you enjoy doing. Remember body fat is burned evenly from around the entire body. There is no such thing as "spot reduction."

Keep good records of your aerobic activity. Always try to improve your previous record in one way or another.

WEIGHT TRAINING TO REDUCE BODY FAT

Increasing the size of your muscles increases the ability of your body to burn calories. This is called “raising your metabolism.”

- Example: The larger the engine you have in your car, the more gasoline it will burn. Muscles are the engines of your body; the larger you make them, the more calories they will burn.
- You should not worry so much about how much your body weighs. Be concerned about how much body fat you have and what you see in the mirror. Larger muscles will make you weigh more; however, muscle will burn more calories and more fat.
- Some benefits of weight training:
 - a. increases in muscle mass, tone, endurance, stamina, speed, and feeling of wellbeing.
 - b. decreases in body fat, stress and tension, resting heart rate, and chance of injury.
 - c. weight training also helps strengthen bones and ligaments, improves flexibility, helps rehabilitate injuries, induces natural fatigue and relaxation, and - most importantly improves your self-image.

IF YOU DIET AND DO NOT EXERCISE...

Your body decreases in:

- bone density - which may lead to osteoporosis or increased
- organ mass - leading to heart, liver, kidney, pancreas, and digestion problems - therefore, lowering your metabolism and your calorie-burning ability.
- Energy - you will have less energy to accomplish everyday activities.

You will:

- have a more difficult time losing weight each time you diet
- retain more fat and lose more muscle
- not receive the stress reduction benefits that exercise can produce

The body's natural ability to survive kicks in. You are telling your body that there is a famine going on; therefore, your body will store what you eat as body fat to use for future energy needs.

Be sure to follow a diet of moderation using common sense, exercise regularly, and be patient -*nothing happens overnight*. A slow body fat loss is a sure one.

WELLNESS CONCEPTS SOPHOMORES

REVIEW OF FRESHMEN WELLNESS CONCEPTS



SOPHOMORE PHYSICAL EDUCATION OBJECTIVES

As a result of Sophomore Physical Education, students will be able to:

1. Take resting heart rate and determine target heart rate
2. Determine place on wellness continuum
3. Set fitness goals as a result of resting heart rate, wellness continuum and fitness testing
4. Strive to improve in three of the health related fitness tests
5. Keep a personal activity log
6. Demonstrate an understanding of the value of regular exercise
7. Demonstrate the characteristics of being an effective team member
8. Define and give examples of "aerobic exercise"
9. Fulfill the swimming requirement for the course
10. Improve Health-Related Fitness components in at least three of the four tests.

GOAL SETTING

I CAN/WILL

DEADLINE DATE _____

GOAL #1

I CAN/WILL

DEADLINE DATE _____

GOAL #2

IN ORDER TO ACHIEVE GOAL #1, I WILL NEED TO: _____

IN ORDER TO ACHIEVE GOAL #2, I WILL NEED TO: _____

SIGNATURE

THE TOTAL CONCEPT OF WELLNESS

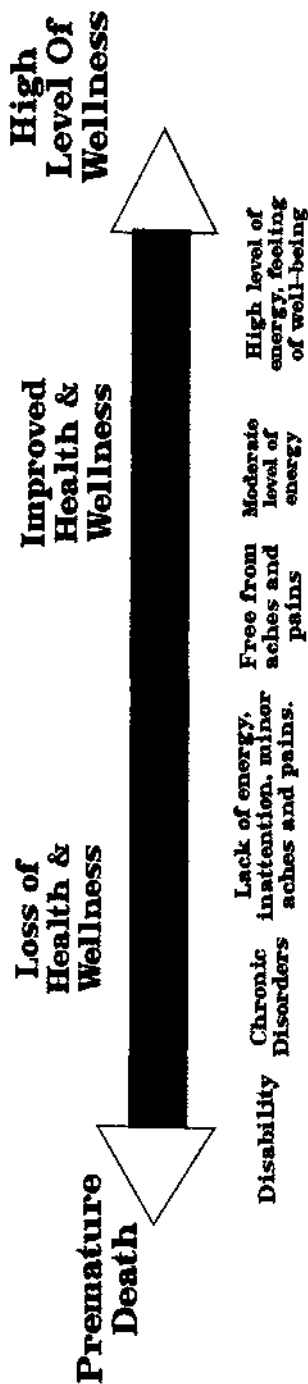
Wellness pertains to four major areas and includes:

1. **Physical Wellness** refers to the health of your body. Physical wellness is achieved through exercise, proper nutrition, preventive care, and avoidance of abusive substances.
2. **Intellectual Wellness** encourages you to continue gathering knowledge through stimulating learning experiences. As you challenge your mind, you improve your mental potential and ability. This area helps you to solve problems.
3. **Emotional Wellness** is attained through awareness and acceptance of your feelings and self-image. An emotionally well person is able to demonstrate self-expression, self-control, self-evaluation, and enthusiasm for life.
4. **Social Wellness** refers to relationships with others. It involves your ability to make friends, to cooperate with others, and be a productive member of a community and society.

CHALLENGE EDUCATION

Sophomore classes will participate in various group challenge projects in order to learn to work together to problem solve and to discuss various ways to work as a team member. Students will be challenged to work together to achieve a common goal against other groups and learn about decision-making, choices, group dynamics and values clarification.

WELLNESS CONTINUUM



People on this side of the continuum usually rely on someone else to help them maintain their health and well-being.

People on this side of the continuum usually exhibit a high degree of responsibility, discipline, and positive direction in life. They accept responsibility for their own health and well-being.

Most people function below the Wellness midpoint.

PERSONAL WELLNESS INVENTORY

For the first section on heredity, circle Y for yes or N for no.

HEREDITY One of my close relatives has experienced:

- | | |
|-------------------------|--------|
| 1. heart disease | Y or N |
| 2. high blood pressure | Y or N |
| 3. cancer | Y or N |
| 4. diabetes | Y or N |
| 5. glaucoma | Y or N |
| 6. asthma | Y or N |
| 7. alcoholism | Y or N |
| 8. schizophrenia | Y or N |
| 9. overweight | Y or N |
| 10. clinical depression | Y or N |

For the remainder of the inventory, write *usually (or always)*, *sometimes*, or *rarely* for each statement. Respond to each statement with the word that best describes your typical behavior, not what you think you should do.

MENTAL

11. I allow myself to cry ()

HEALTH

12. I express feelings such as love, fear, and anger constructively. ()
13. I have friends or relatives with whom I discuss problems. ()
14. I keep anxiety from interfering with my activities at school or at home. ()
15. I do not let stress build up and give me headaches or an upset stomach. ()
16. I have hobbies that help me get away from daily tasks. ()

NUTRITION

17. I eat a wide variety of foods, including breads and cereals, fruits and vegetables, meat and milk. ()
18. I avoid foods high in refined sugar. ()
19. I avoid adding salt to my food. ()
20. I avoid eating foods that are high in fat. ()
21. I eat breakfast. ()
22. I select and eat only healthy snacks. ()

PHYSICAL

23. I do vigorous exercise such as running, swimming, brisk walking at least 3 times a week ()

FITNESS

24. I exercise to build muscle strength and endurance at least 3 times a week. ()
25. I stretch to develop flexibility. ()
26. I warm up and cool down when I exercise. ()
27. I enjoy some exercises or strenuous sports that I can continue with throughout my life ()
28. I maintain a healthy level of body fat, neither too much or too little. ()
29. I get 7 to 9 hours of sleep each night. ()

PERSONAL

30. I brush and floss my teeth daily. ()
31. I always use sunscreen when I am out in the sun for extended periods of time. ()

HEALTH CARE

- 32. I have my teeth checked twice a year. ()
- 33. I see my family doctor every two years for a complete checkup. ()
- 34. When under medical treatment, I follow my doctor's instructions about activities and using medications. ()
- 35. I avoid using nonprescription drugs, including tobacco and alcohol. ()
- 36. I have my blood pressure checked once a year. ()
- 37. I know the seven warning signs of cancer. ()
- 38. I practice monthly self-examination for cancer (breast exam for girls; testicle exam for boys). ()

PUBLIC

- 39. I walk, bike, or use public transportation whenever possible. ()

HEALTH

- 40. I recycle such items as cans, paper, glass, clothes, and books. ()
- 41. I avoid polluting the air with unnecessary smoke. ()

SAFETY

- 42. I use safety belts when driving or riding in a car. ()
- 43. I always wear a helmet when riding a bike. ()
- 44. I follow water safety procedures and can save myself or others from drowning. ()
- 45. I use safety precautions when working with power tools, firearms, and other dangerous equipment. ()
- 46. My home has safety features such as smoke detectors, outlet caps, and nonskid rugs. ()
- 47. I know first aid methods to help others in an emergency. ()

SCORING

- 1. Question 1-10: Give yourself 1 point for each question you answered *yes*, 5 points for each question you answered *no*.

Questions 11-47: Give yourself 5 points for each question you answered *usually* (or *always*), 3 points for each *sometimes*, and 1 point for each *rarely*.

- 2. Add up all your points. The total is your inventory score.
- 3. Your score relates to the Wellness Continuum as follows:

175 or higher You are at low risk. You are practicing many good health behaviors. **80-174** You are in the neutral zone. You may not be ill, but you are at risk for long-term health problems. You are not getting everything you could out of life. **79 or lower** You are at high risk. In what sections did you answer *rarely* and *sometimes*? Pinpoint areas that need your attention, and find ways to lower your risk. Your wellness is based on a continuum over which you have control.

WHY IT IS IMPORTANT TO EXERCISE REGULARLY

- 1. From the American Heart Association... "The American Heart Association has designated physical inactivity as a fourth factor of coronary heart disease joining hypertension, smoking and high cholesterol levels. Sedentary living is a substantial risk factor. It is the first addition to the list of risks for cardiovascular disease in nearly twenty years. The risk for developing cardiovascular disease doubles in sedentary people. At the present time, sedentary lifestyles are responsible for 250,000 deaths a year in the United States. There is also evidence that even low intensity activities performed daily can provide long term benefits and lower the risk of cardiovascular disease."

2. From the American Heart Association... “Activities such as walking, hiking, stair-climbing, aerobic exercise, calisthenics, jogging, running, bicycling, rowing, swimming and activities such as tennis, racquetball, soccer, basketball, and touch football are especially beneficial when performed regularly.”
3. From the United States Department of Health and Human Services... “More than 40% of children ages 5 to 8 are already exhibiting major risk factors including obesity, high blood pressure, high cholesterol levels and poor cardiovascular efficiency.”
4. From the Dallas Institute for Aerobics... “At least 30 to 35% of the school age population are at risk for early heart or circulatory disease and premature death as adults due to poor physical fitness levels.”
5. The phrase, “Move It Or Lose It” is critical to the muscular system and the heart and circulatory system because if you don’t use them they will deteriorate. (Think about how a muscle looks after taking it out of a cast after 2 weeks - it’s called atrophy and it looks sickly and weak.)
6. “Systemic Exercise” is exercise which develops the entire body including the muscular system, circulatory, respiratory and neuromuscular systems. The body responds to stimuli and adapts to regular and vigorous exercise. Each exercise session should be designed to stimulate each of these systems.
7. Physical Education Is Not Athletics -Physical Education is a required course for all students and athletics, an option for those students who are talented enough and choose to participate after school in a competitive activity. (Not everyone has an opportunity to do that). Physical Education should help all students develop personal health-related fitness and promote skills and habits which can be used in leisure time activities.
8. Individuals need to understand the importance of muscular strength development and the effect on a person’s metabolism. Individuals with more muscle have a higher metabolism. Therefore, if a high level of muscle is developed (through weight training, calisthenics and regular exercise) then the individual has a greater chance to maintain a weight level which is considered healthy.
9. Eight out of ten Americans seek medical care for low back problems. The problem is a lack of flexibility of the hamstring muscles and poor abdominal strength. These two areas must be conditioned and trained to support the vertebral column and abdominal wall. This can be done only through regular exercise which emphasizes progressive resistance of these muscle groups.
10. At the present rate, one out of every two Americans alive today will die from some form of cardiovascular disease. According to the American Heart Association, in order to improve cardiovascular fitness, individuals need to perform aerobic activities which elevate the heart rate to between 65% - 80% of their maximum. These kinds of activity also improve respiratory efficiency.
11. Exercise is an excellent way of dealing with stress, anxiety and improves mental health. Everyone needs an outlet to relieve stress and the pressures of everyday life. No other method is more healthy and beneficial than regular exercise.
12. What else does regular, vigorous exercise promote?
 - a. Improved cholesterol levels -regular exercise lowers LDL’s (bad cholesterol) and increases HDL’s (good cholesterol)
 - b. Lowers blood pressure
 - c. Maintenance of optimal body weight and composition
 - d. Stronger bones
13. There are over 90 medical and physiological studies to support the following facts:
 - a. Exercise should exceed more than 1000 calories per week to be effective
 - b. Exercise must be regular
 - c. Age is not a deterrent to cardiovascular training
 - d. A person can de-train in two weeks without exercise
 - e. The following statements are true:
 - i. Respiratory function decreases 40% in a lifetime
 - ii. Nerve conduction decreases 20%
 - iii. Liver and kidney functions decrease 45% by age 70

JUNIOR / SENIOR WELLNESS CONCEPTS

Junior - Senior Physical Education Objectives

Lifestyle Research Studies

The Surgeon General's Report

Exercise Myths

Cardiovascular Risk Factors

The Elements of a Typical Exercise Session

Weekly Exercise Needs

Personal Fitness Project

Designing a Personal Weight Training Program



JUNIOR - SENIOR PHYSICAL EDUCATION OBJECTIVES

All junior -senior students regardless of the class in which he/she is enrolled, will be responsible for the following curriculum objectives.

As a result of Junior - Senior Physical Education, the student will be able to:

1. Describe the elements of a healthy lifestyle;
2. Describe the benefits of regular exercise and the contents of the Surgeon General's report regarding exercise;
3. Distinguish between exercise myths and exercise facts;
4. Devise a monthly individualized personal fitness routine which includes the appropriate components of each exercise session, as well as the appropriate total cardiovascular, strength, flexibility, and endurance phases;
5. Design a personal weight training program (see lesson in Junior/Senior Weight Training section);
6. Demonstrate an understanding of the controllable cardiovascular risk factors;
7. Attain a 70% or better on the written C.R.T. (Criterion Reference Test);
8. Fulfill the swimming requirement for the course;
9. Improve Health-Related Fitness components in at least three of the four tests.
10. Demonstrate knowledge and skills in a self-selected individual sport, a team sport, creative movement and work-related activities.

LIFESTYLE RESEARCH STUDIES

Lifestyle, or how a person chooses to live, will either create positive or negative consequences.

Two lifestyle studies are cited below:

Dr. Lester Breslow of U.C.L.A. studied a large group of happy, healthy, productive and long lived individuals. According to his research they followed these lifestyle habits:

1. Ate breakfast regularly (a big breakfast)
2. Did not eat in-between meal snacks
3. Maintained normal body weight
4. Did not smoke
5. Drank only moderately (these were adults)
6. Slept 7 - 8 hours per night
7. Exercised regularly

Another lifestyle research study conducted by Kern noted that individuals who followed the habits listed below lived 11 years longer than average. These individuals:

1. Did not smoke
2. Drank only moderately (these were adults)
3. Ate nutritiously
4. Exercised at least 5 times per week
5. Always used seat belts when driving

THE SURGEON GENERAL'S REPORT

July 1996

The main purpose of the *Surgeon general's Report on Physical Activity and Health* is to summarize existing research showing the benefits of physical activity in preventing disease and to draw conclusions that can be useful to Americans who are interested in improving their health.

WHO WAS INVOLVED IN WRITING THE REPORT?

Various organizations were involved in preparing the report. These included the following: The Centers for Disease Control and Prevention (CDC) and the President's Council on Physical Fitness and Sports (PCPFS) were asked by the office of the Surgeon General to collaborate on this project. Other organizations involved included the National Institutes of Health (NIH), the American Alliance for Health, Physical Education Recreation and Dance (AAHPERD), the American College of Sports Medicine (ACSM) and the American Heart Association (AHA).

WHAT DOES THE REPORT CONCLUDE?

1. People of all ages can substantially improve their health and quality of life by including moderate amounts of physical activity in their daily lives. (A moderate amount of physical activity is roughly equivalent to physical activity that uses approximately 150 calories of energy per day or 1,000 calories per week).
2. Significant health benefits can be obtained by including a moderate amount of physical activity (e.g., 30 minutes of brisk walking, 15 minutes of running, or 45 minutes of volleyball) on most, if not all, days of the week. Through a modest increase in daily activity, most Americans can improve their health and quality of life.
3. Additional benefits can be gained through greater amounts of physical activity. People who can maintain a regular regimen of activity that is longer duration or of more vigorous intensity are likely to derive the greater benefit.
4. Physical activity reduces the risk of premature mortality in general and of coronary heart disease, hypertension, colon cancer, and diabetes. Physical activity also improves mental health and is important for the health of muscles, bones and joints.
5. More than 60 percent of American adults are not regularly physically active. In fact, 25 percent are not active at all.
6. Nearly half of American youths 12-21 years of age are not vigorously active on a regular basis. Moreover, physical activity declines dramatically during adolescence.
7. Experts advise previously sedentary people embarking on a physical activity program to start with short durations of moderate-intensity activity and gradually increase the duration or intensity until the goal is reached.
8. Recent recommendations from experts also suggest that cardiorespiratory endurance activity should be supplemented with strength-developing exercises at least twice per week for adults, in order to improve musculoskeletal health and maintain independence in performing the activities of daily life.

AT A GLANCE, THE REPORT CONCLUDES THE FOLLOWING ABOUT REGULAR EXERCISE:

Regular physical activity that is performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness and death in the United States. Regular physical activity improves health in the following ways:

- Reduces the risk of dying prematurely
- Reduces the risk of dying from heart disease
- Reduces the risk of developing diabetes
- Reduces the risk of developing high blood pressure

Helps reduce blood pressure in people who already have high blood pressure
Reduces the risk of developing colon cancer
Reduces feelings of depression and anxiety
Helps control weight
Helps build and maintain healthy bones, muscles, and joints
Helps older adults become stronger and better able to move about
Promotes psychological well-being

A MAJOR PUBLIC HEALTH CONCERN

Given the numerous health benefits of physical activity, the hazards of being inactive are clear. Physical inactivity is a serious, nationwide problem. Its scope poses a public health challenge for reducing the national burden of unnecessary illness and premature death.

“Many Americans may be surprised at the extent and strength of the evidence linking physical activity to numerous health improvements. Most significantly, regular physical activity greatly reduces the risk of dying from coronary heart disease, the leading cause of death in the United States. Physical activity also reduces the risk of developing diabetes, hypertension, and colon cancer, enhances mental health, fosters healthy muscles, bones, and joints and helps maintain function and preserves independence in older adults.”

Philip R. Lee, Assistant Secretary of Health and David Satcher, Centers for Disease Control and Prevention.

EXERCISE MYTHS

People hold many mistaken beliefs about exercise. In some cases, these beliefs may lead to incorrect or even dangerous workout behaviors. In other cases, they may prevent a person from exercising at all. The chart below lists some of the most common myths about exercise and explains why they are not true.

- 1. Myth:** “No pain, no gain” exercising to the point of feeling pain is the only way to improve your abilities.
Fact: Pain is a danger signal, a sign that you are causing harm. Sharp or sudden pain should be a signal to stop immediately.
- 2. Myth:** Candy bars and other high-sugar foods provide energy for your workout.
Fact: Foods that are high in sugars may actually decrease your body’s available energy supply. Nutritious foods (fruits, for example) are a better pre-exercise snack.
- 3. Myth:** Drinking fluids before exercising causes stomach cramps.
Fact: Plain water will not cause cramps. Without adequate water, you can become dehydrated, leading to muscle cramps and other more serious problems. This is why it is important to drink water before and during exercise -even if you are not thirsty.
- 4. Myth:** If you stop exercising your muscles will turn to fat.
Fact: Muscles and fat are separate tissues; one is not converted to the other. If you stop exercising, you lose muscle tone and density. You also tend to gain body fat, but only because you are burning fewer calories.
- 5. Myth:** You can lose weight and body fat if you sweat during exercise.
Fact: Perspiration itself results only in temporary weight loss. You will regain the weight as you replenish fluids.

6. Myth: If women lift weights they will develop large muscles. **Fact:** Women naturally have less muscle tissue and more fat tissue than men. They also have a balance of hormones that is different from men and that prevents large muscle gain. Female bodybuilders must train long hours and reduce their body fat severely to show muscle definition. Some women use illegal steroids to increase muscle mass.

7. Myth: Weighing yourself is the best way to monitor your body fat level.

Fact: Your weight is not a good indicator of body fat levels. As you become fit and lose fat, you develop more and leaner muscle. Since muscle weighs more than an equivalent volume of fat, your weight could stay the same or even increase. Thus, you can grow lean and fit without losing any weight.

8. Myth: Being thin is a sign of fitness

Fact: Thin people who do not exercise are likely to have poor heart, lung, and muscular fitness. Cardiovascular fitness (your stamina during aerobic activity) is a better measure of fitness than your appearance.

9. Myth: I've been doing 100 sit-ups and side bends a day for weeks. Why can't I get rid of my spare tire?

Fact: **Because spot reduction is virtually impossible. "When you utilize fat it comes from a pool of lipids -fatty substances -throughout the body, not from one specific location," says physiologist Robert M. Otto, director of the Human performance Laboratory at Adelphi University in Garden City, N.Y. Sit-ups, he points out, are fine for toning the abdominal muscles, but they won't melt fat away."**

So how do you lose fat? It seems relatively simple: just burn off more calories through exercise than you take in through food. Even then explains Dr. Jack Jarvey, a physician for the U.S. wrestling team, "problem weight may be the last to go". "There's a genetic predisposition to lay down fat in certain areas. We lose weight last from the place we put it on first." For most men that will be in the abdominal or side areas, and for most women the upper thighs, buttocks and arms.

10. Myth: If I keep lifting weights, I'm going to end up looking like one of those heavily muscled body builders.

Fact: **Don't worry, you won't - not unless you're the one in a million with the genes of an Arnold Schwarzenegger. Even then, you'd have to endure the same kind of grueling, high-intensity workouts that most body builders do. "The average person who works out three times a week for a half-hour will never get this look," notes Dr. Robert J. Murphy, head team physician and clinical associate professor of medicine at Ohio State University.**

11. Myth: I don't really need to lose weight. I just want to firm up and redistribute what I've got."

Fact: **"You can't redistribute weight," says Otto flatly. "We're talking about two different elements - fat, and lean body mass, which includes muscle, bone and internal organs."**

If you want to maintain your same basic weight, it's a two-part process: you need to lose fat while gaining lean body tissue. There's simply no way fat can be "firmed up" into muscle.

This misconception is the basis for another related and frequently repeated myth:

12. Myth: “The harder I work, the faster I’ll burn off calories.”

Fact: Eager to get in shape, the novice hops on a stationary bike, cranks up the tension and pedals away. A few minutes later, he is forced to stop, gasping for breath, but proud because he gave his heart a real workout and burned off plenty of calories. Or did he? “In terms of caloric expenditures, time is more important than intensity,” says Otto. And the average person cannot sprint or pedal a high intensity for very long. When it comes to conditioning your heart and burning calories, adds Simon, “a slower, steady pace is going to burn off more calories in the long run than are short bursts of exhaustive exercise.” Stick with activities such as light jogging or walking, which are “aerobic,” meaning literally “active in the presence of oxygen,” as opposed to spurts of high-intensity exercise, like a 100 yard dash.

13. Myth: I want to lose weight fast so I’ll wear an extra sweat suit while I jog.

Fact: “Increased sweating merely dehydrates you more quickly,” says Otto. “When you weight yourself, that will appear as weight loss. But within twenty-four to thirty-six hours your body will return to normal hydration. It’s simply a temporary water-weight loss that you’re seeing. And, under some conditions, that loss could be dangerous.”

The principal way the body has to dissipate heat is through the skin, Murphy explains. In a doubled or rubber sweat suit, the body is unable to evaporate sweat, and therefore retains heat. Dehydration and heat stroke are sometimes encountered by football players, who usually wear helmets, pads and jerseys, while runners and marathoners, who typically run in shorts and mesh tank tops, dissipate heat more easily. So dress in lightweight, loose-fitting clothes for workouts.

14. Myth: If some exercise is good, more must be better.

Fact: Too much of a good thing can have negative consequences. Overtraining, notes Simon, is a problem, especially for beginners. The body needs time to rest and recover. In fact, it’s during those periods of rest that the positive adaptations we seek from training (increased muscle mass, improved cardiovascular conditioning) actually take place. Furthermore, exercise reaches a point of diminishing returns. “If you exercise three times a week,” Simon says, “you’re making gains. But if you exercise six times a week, your gains will not be twice as great; they’ll be only slightly higher. You also increase the risk of injuries due to overtraining.” What’s the answer? “Moderation,” declares Murphy. “It’s the answer to everything in eating, in drinking, in exercise.”

15. Myth: Don’t eat before working out.

Fact: “World records have been set by athletes who ate hamburgers and brownies moments before their event,” says Otto. “But, some people can’t eat for hours before exercise without feeling sick. It’s really an individual preference.”

In fact, it might be advisable to exercise after eating. Simon notes that mild exercise shortly after a meal can burn up more calories than exercise done later on. So the custom of an after-dinner stroll may have medical validity.

16. Myth: It’s better to work out in the morning.

Fact: Only if you’re in the Marines and you’re ordered to. “Exercise whenever it’s most convenient for you,” advises Otto. The sole exception is during hot weather when, Murphy notes, you should exercise in early morning or late evening to avoid the hottest, most humid hours.

CARDIOVASCULAR RISK FACTORS

The American Heart Association and American College of Sports Medicine list primary and secondary risk factors for coronary heart disease as follows:

PRIMARY:

1. Major alterable risk factors: These are factors that can be modified.
 - A. Physical inactivity
 - B. Smoking - #1 preventable health problem
 - C. High blood pressure (140/90)
 - D. High cholesterol levels
desirable: below 200 mg/dl
moderate risk: 200-239 mg/dl
high risk: 240 mg/dl
2. Major unalterable risk factors: These are factors that can't be modified. Persons in these groups have a greater risk of heart disease, particularly if they adopt unhealthy behaviors.
 - A. Those with a family history of heart disease
 - B. Increasing age: men over 40, women over 50
 - C. Men
 - D. African Americans

SECONDARY:

The following secondary risk factors contribute to increasing an individual's risk of CHD:

- A. Obesity
- B. High-fat diet
- C. Stress

THE ELEMENTS OF A TYPICAL EXERCISE SESSION

1. **Warm-up** - The warm-up helps to prepare the system for exercise. It should last between 5 - 10 minutes and usually consists of the same body movements that you will perform during your workout.
2. **Stretching** - Stretch each major muscle in a slow, relaxed manner known as static stretching. Do not bounce or use ballistic movements to stretch, unless you are involved in a dynamic stretching routine.
3. **The Workout** - The workout may consist of a cardiovascular phase or a strength and muscular endurance phase. These fitness areas can be combined in a workout or performed separately on different days depending upon the individual's choice or time availability.
4. **The Cool-down** - The cool down can be accomplished by performing the warm-up process in reverse. At first the individual should slow down the amount of activity being performed and then incorporate static stretches to relieve muscle tightness and soreness.

WEEKLY EXERCISE NEEDS

1. Aerobic Exercise 3 - 5 times per week in Target Heart Rate Zone.
See Freshmen Wellness (Target Heart Rate Calculation)
Record Target Heart Rate in the back of this book
2. Strength Training Exercise (3 times per week) performing sit-ups, push-ups or pull-ups or weight training exercises, bench press, lat pull-downs, tricep extensions, etc. that build and strengthen specific (skeletal) muscles (more muscle equals higher metabolism).
3. Flexibility Exercises (2 - 4 times per week) stretching slowly while relaxed and breathing gently (static stretching) and holding stretch from 10- 60 seconds.

SENIOR FINAL EXAM

Fitness is a very individual quality. We each have varying degrees of fitness in each component and, therefore, have quite different fitness needs. No single activity or exercise plan can be best for everyone.

Design a personal fitness program for maintenance and/or improvement of your own personal fitness for one month. The following are guidelines you should use:

1. Consider all five aspects of fitness. Know what aspects you need to improve and choose an appropriate exercise plan. Supplement your exercise plan with other activities so you will maintain all components of fitness.

Cardiovascular Endurance

Muscular Strength

Muscular Endurance

Flexibility

Body Composition

2. The program should create a training response. This means that the exercises must be done with the proper frequency, intensity, duration, and type of activity. (F.I.T.T. Principle)
3. The exercises should involve all parts of the body and major muscle groups. Do not over exercise one area of the body while neglecting another.
4. Fitness improvement requires progression. There should be some way to measure your exercise load. Keeping track of your progress helps you evaluate and set goals. You can use a block calendar to detail exactly what you are doing. Example - What exercises will you do for warm-up?

F.I.T.T. Principle

3 times a week

within target heart range (See calculating target zone
- Freshman Concepts) minimum 15 - 60 minutes.

All 5 components of fitness

Variety of activity

Measurement of improvement

DESIGNING A FITNESS PROGRAM

A varied exercise menu stimulates both body and mind.

Many people find that a single activity doesn't

Don't get stuck in a rut with the same exercise - a 5-mile run every Monday, Wednesday and Friday, week after week and month after month, for example. A mix of activities helps avoid injury, gives you more of your muscles a workout and, perhaps most important, alleviates boredom.

This sounds perfectly obvious and sensible. But until recently, fitness experts told people to find an activity they liked - preferably a "pure" aerobic activity like running, brisk walking, aerobic dance or swimming - and stick with it. No longer. Varying your exercise menu is fast becoming accepted when trying to improve fitness.

Even recreational sports, such as volleyball, tennis, soccer and softball -once spurned as insufficiently active to get your heart rate up and keep it there - figure prominently in a varied exercise regimen for the average individual. They're more fun than swimming laps or running around a track, for one. But they also "complement aerobic activities because they involve intense bursts of muscle activity," says Dr. Doug Hiller, a fitness researcher at the University of Tennessee in Memphis. Such bursts provide strong aerobic conditioning, in which muscles are forced to react quickly. That improves agility and coordination. Recreational sports also give other muscles a workout. The quick lateral movements involved in tennis or squash, for example, involve leg muscles and tendons that are used hardly at all in running or walking.

Athletes and the rise of triathlons, the grueling competitions that combine running, bicycling and swimming, have popularized the idea of doing a lot of different exercises. It's now often referred to as **cross-training**, but you may want to think of it simply as mixing and matching your activities to achieve a well-rounded degree of fitness. For athletes, a kind of ad hoc sci-

ence of cross-training has evolved, derived from studies over the past few years, but also from experience. Your fitness program, regardless of level, can benefit from what the professionals have learned. "You don't have to be a triathlete to get the benefits of cross-training," says Dave Scott, a fitness consultant and six-time winner of the Hawaii Ironman Triathlon - a 2.4 mile swim, 112 mile bicycle ride and 26.2 mile marathon distance run. (Other triathlons are shorter). he chief principle behind mixing activities is that the aerobic benefit from one form of activity carries over to other activities and sports. Fitness achieved by walking or running for example, will let you bike, swim and hike farther or play tennis, racquetball or volleyball longer.

But the main goal is to become fit in a well rounded manner. Every activity and sport uses different muscles or the same muscles in different ways. Both running and biking, for example, primarily involve leg power, and especially the quadriceps muscle. But each activity uses that muscle, and other leg muscles, much differently. In running and walking, the quadriceps muscle tightens only for the brief period when the leg hits the ground, to support the body and help the leg push off. In biking, the quadriceps is engaged for a longer period and works harder in turning the pedals. The well-toned but not particularly big quads shows biking strengthens the quadriceps in a way that helps in running, especially long distances. And running helps develop the calf and hamstring muscles that aid in biking.

Some sports utilize completely different muscles, serving the aim of overall fitness. Swimming, for instance, is an excellent aerobic activity that develops strength and flexibility in the upper body - a part of the body running and walking don't exercise that much. Likewise, weights and resistance calisthenics, such as push-ups, aren't thought of as aerobic activities, but do get the heart pumping and build strength, which improves efficiency in aerobic activities and helps prevent injuries. Triathlete Scott believes that anyone starting a program involving aerobic activities or sports should do some strength training first: "You need to build those leg and arm muscles up a little before setting off on a run or bike. Otherwise you will be prone to injury."

A fitness regimen should develop flexibility and coordination, too. Aerobic dance and calisthenics are particularly suited to this because of their varied movements. Running, by contrast, repeats essentially one movement.

Altering the intensity and duration of workouts is another cross-training tenet. A long, slow workout one day might be followed by a shorter, more intense session the next day. The final ingredient in cross-training is rest. "take plenty of time off and don't push too hard." This particularly applies to people who squeeze as much exercise as they can into lives already full of activities. Such people tend to crash, exhausted or ill, when the rushing around catches up with them. Far better to pencil in days of rest - and enjoy them - than to feel guilty for not exercising enough.

A WEEK OF WORKOUTS

FOR BEGINNERS

Monday: Calisthenics or other strength-building exercises (20 minutes)

Tuesday: Rest.

Wednesday: Aerobic activity like walking, running or swimming (30 minutes).

Thursday: Rest.

Friday: Rest.

Saturday: Morning -stretching or other sport, hiking or biking at slow pace (30 minutes to 1 hour)

Sunday: Rest.

FOR FITNESS VETERANS

Monday: Calisthenics and strength-building exercises (20-30 minutes).

Tuesday: Rest

Wednesday: Walking, running or other aerobic activity (20-30 minutes)

Thursday: Stretching, strength building or both (15-20 minutes). Swimming (some fast laps) and perhaps a recreational sport (30-45 minutes).

Friday: Rest.

Saturday: Recreational sports, or walking, flexibility workout (15 minutes) hiking or biking for fun (1-2 Afternoon -fun, recreational hours).

Sunday: Rest.

NEWS YOU CAN USE

The best kind of program lets you plan a banquet of fitness exercises which, taken together, help strengthen the heart through aerobic conditioning, enhance muscle tone, improve flexibility, offer the option of weight control - and sustain your enthusiasm.

HEART FAIR

Excellent

- Aerobics
- Basketball (full court)
- Cross-country skiing
- Cycling (13 mph)
- Rowing
- Running (6-min. mile)
- Running (9-min. mile)
- Swimming (slow laps)

Good

- Hiking Racquetball/squash/handball Roller or ice skating Walking (13-min. mile)

Fair

- Golf (walking) Tennis (singles) Volleyball

Poor

- Bowling Calisthenics Horseback riding Stretching Weight training

MUSCLE TONE

- Basketball (full-court) Tennis (singles)
- Walking (13 min. mile)

Poor

- Bowling Golf (walking) Horseback riding Stretching Volleyball

FLEXIBILITY

Excellent

- Calisthenics Stretching Aerobics Basketball (full court) Hiking Swimming

Fair

- Cross-country skiing Golf (walking) Racquetball/squash/handball Roller or ice skating Volleyball

Poor

- Bowling
- (strength & endurance)

Excellent

- Weight Training

Good

- Aerobics Calisthenics Cross-country skiing Cycling (13 mph) Hiking Racquetball/squash/handball Roller or ice skating Towing Running (6-min. mile) Running (9-min. mile) Swimming (slow laps) Cycling (13 mph) Horseback riding Rowing Running (6 mph) mile Running (9 mph) mile Tennis (single) Walking (13-min. mile) Weight training

MONTHLY FITNESS PLAN

LAST NAME, FIRST NAME

TARGET HEART RATE

ACTIVITIES

CARDIOVASCULAR 3 - 5 TIMES PER WEEK

1. _____
2. _____
3. _____
4. _____
5. _____

STRENGTH 2 - 3 TIMES PER WEEK

- | | |
|----------|-----------|
| 1. _____ | 7. _____ |
| 2. _____ | 8. _____ |
| 3. _____ | 9. _____ |
| 4. _____ | 10. _____ |
| 5. _____ | 11. _____ |
| 6. _____ | 12. _____ |

FLEXIBILITY 2 - 4 TIMES PER WEEK

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

USE THE CALENDAR (NEXT PAGE) TO COMPLETE YOUR PERSONALIZED FITNESS PLAN. SEE THE FRESHMEN CONCEPTS SECTION FOR CALCULATING YOUR TARGET HEART RATE.

USE THE SECTION IN THE JUNIOR-SENIOR CONCEPTS, A TYPICAL EXERCISE SESSION AND WEEKLY EXERCISE NEEDS TO ASSIST YOU IN COMPLETING THIS PROJECT. IF YOU HAVE QUESTIONS, SEE YOUR PHYSICAL EDUCATION INSTRUCTOR.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

WEIGHT CONTROL

Estimated calories burned per 1/2 hour for a person weighing:

	120 lb.	150 lb.		120 lb.	150 lb.
Running (6 min. mile)	380	450	Roller or ice skating	150	180
Rowing	350	410	Aerobics	150	180
Cross-country skiing	300	350	Weight training	140	160
Running (9 min. mile)	300	350	Swimming (slow laps)	140	160
Cycling (13 mph)	270	320	Calisthenics	130	150
Racquetball	260	300	Hiking	130	150
Tennis (singles)	180	210	Golf (walking)	110	130
Basketball (full court)	170	200	Horseback riding	100	120
Walking (13 min. mile)	170	200	Stretching	90	110
Volleyball	150	180	Bowling	80	100

DESIGNING A PERSONAL WEIGHT TRAINING PROGRAM

1. Quality is #1 - write or print neatly (all entries)
2. Minimum is 4 lifts per day - you may do more than that if you choose.
3. Include in your program: lifts, sets, reps the prime muscle group involved in the lift, and the amount of weight you will start to lift at the beginning of your program.
4. The program should be a balance of work for the major muscle groups including the pectorals, lats, biceps, triceps, deltoids, trapezius, quadriceps, hamstrings, gastrocnemius and abdominals.
5. The student should be able to evaluate their own program as to why, how much, how often the lifts are to be performed, as well as if it is a strength or endurance program and finally what the goal of the program is.

LIFTING CONSIDERATIONS

1. Always use proper technique. It is better to perform the movement slowly and correctly rather than try to cheat and lift a heavier weight.
2. Slow and controlled repetitions produce the best results.
3. Warm-up before each lift by doing one set of 15 reps before you start working the muscle group.
4. Don't hold your breath while lifting. Exhale on the positive or working phase and inhale on the negative phase.
5. If you are trying to lift more than you are used to lifting, get someone to spot your lift.
6. Allow 48 hours between workouts so that your muscles can rest and rebuild after a strenuous workout. The abdominal and oblique muscles recover quickly and can be trained every day.
7. Exercises such as push-ups, sit-ups, ab curls, dips and pull-ups can be performed every day.
8. Good luck in your training - remember to always keep safety in mind!

NAME _____

ATTENDANCE# _____ HOUR _____

WEIGHT TRAINING PROGRAM

MONDAY - WEDNESDAY - FRIDAY PROGRAM

LIFT	SETS	REPS	WT.	MUSCLE GROUP
1.				
2.				
3.				
4.				
5.				
6.				

TUESDAY - THURSDAY PROGRAM

1.				
2.				
3.				
4.				
5.				
6.				

ELECTIVE PHYSICAL EDUCATION COURSES

Advanced Concepts

Challenge Education

Dance 1

Dance 2

Dance Exercise

Fitness and Nutritional Analysis

Strength and Conditioning



ADVANCED CONCEPTS

ACTIVITY DESCRIPTION:

Advanced Concepts is an elective physical education course for Junior/Senior students designed to provide students with the opportunity to study and apply advanced physical and safety education concepts and procedures. This will include the following concepts:

1. Wellness
2. Cooper Point System
3. Goal-Setting
4. Physical Fitness Testing
5. Target Pulse Rate
6. F.I.T.T. Principle
7. Flexibility
8. Body Composition
9. Nutrition and Weight Change
10. Muscular Strength and Endurance
11. Planning an Exercise Program

Along with these concepts the student will also be instructed in the proper techniques of cardiopulmonary resuscitation (C.P.R.) and water safety.

Wellness is a state of mental, physical, and emotional balance, whereby an individual makes sound decisions regarding fitness, diet, rest and health habits based on research in order to prevent sedentary diseases and develop a healthy lifestyle.

Our approach will be that you are an individual and the daily decisions you make will determine your wellness or well-being. Following the research data does not insure you a long life but, hopefully, will make you feel better. Wellness is self-responsibility and a preventive medicine approach for the future. There are certain concepts that should be understood regarding exercise and fitness.

BENEFITS OF ACTIVITY:

1. The course allows the student, in a practical hands-on approach, an opportunity to study advanced wellness concepts.
2. The students will participate in a variety of labs including fitness testing, body composition testing, heart rate monitoring: C.P.R. certification and lifesaving lifeguard (certification). The course will take place in the swimming pool for 6 weeks of the 18 week course.
3. Upon completion of the course the student has an opportunity to attain certification in cardio-pulmonary resuscitation and advanced life saving and water safety.

TERMINOLOGY:

The textbooks used for this course include Community First Air and Safety and Lifeguard. The terminology is too extensive to be included in this resource book.

RULES AND SAFETY:

1. Each student is expected to be prepared to participate in class on a daily basis. The first eight weeks include a variety of wellness and fitness activities. The last eleven weeks include aquatic and C.P.R. activities which lead to certification in both areas.
2. The level of cognitive activities is greater than those found in other physical education courses.

CHALLENGE EDUCATION

ACTIVITY DESCRIPTION:

Challenge Education is an elective physical education course for Junior/Senior students designed to challenge them Physically, emotionally, and intellectually. There will be a fair amount of risk involved. Students will learn to push their limits and what it takes to accomplish goals as a team. This course will include, but isn't limited to, the following concepts:

1. Low level initiatives
2. Problem solving techniques
3. Trust building activities
4. Kayaking
5. Knot tying
6. Belaying
7. Mechanical ascension
8. Wall traversing
9. Wall climbing
10. Participation in high ropes course

BENEFITS OF ACTIVITY:

1. Students' experiences will build high levels of esteem.
2. Students will learn more about themselves.
3. Students will learn the benefits of team-work.

TERMINOLOGY:

- 1.. Students will be given a handbook to help facilitate the class.

RULES/SAFETY:

1. Students are encouraged to participate, but not forced, as this is a "Challenge By Choice" class.
2. There will be a zero tolerance rule strictly adhered to regarding safety and misconduct.
3. Progressive proficiency testing will be implemented throughout the duration of the course.

DANCE 1 AND 2

ACTIVITY DESCRIPTION:

Dance 1 is an elective semester dance course that offers an introduction to various dance techniques which include ballet, modern, and jazz. The areas of study will include the history of dance, dance choreography, and the cultural aspects of dance.

Dance 2 is an elective semester dance course that offers an advanced level of dance techniques in the areas of ballet, modern, and jazz. The prerequisite for this semester course is Dance 1.

BENEFITS OF ACTIVITY:

1. Dance classes will improve fitness levels.
2. Coordination and poise will enhance overall appearance.
3. Fine Art appreciation when attending professional performances.
4. Creativity can be expressed through original choreography assignments.

TERMINOLOGY: See Vocabulary below:

RULES AND SAFETY:

1. Proper dance shoes must be worn during class (Ballet or Jazz shoe).
2. Dance pants or leotards should be worn for leg support and keeps muscles warm.
3. Dancers should pay close attention to body alignment to prevent injuries.
4. All other rules of Physical Education class apply to the dance classes.
5. Attendance is important so as not to fall behind in class.

STUDY APPLICATIONS: (See Hand-outs)

DANCE VOCABULARY STUDY GUIDE

POSITIONS



1st position



2nd position



3rd position



4th position



5th position

- | | |
|------------------|---|
| 1. coupé | heel to ankle in front or back, one knee slightly bent |
| 2. tendu | battement in plié |
| 3. arabesque | leg raised in back, leg straight |
| 4. attitude | leg raised, slightly bent, in 1st, 2nd, back. |
| 5. piqué | one leg bent and turned out to side; heel should be just under knee in front or back. |
| 6. passé | one leg bent so toe is at side of the knee. |
| 7. relevé | raise to ball of foot from flat position. |
| 8. sous sous | relevé in 5th position |
| 9. plié | bend of the knees. |
| 10. Port de Bras | movement of the arms |

STEPS

- | | |
|--------------------|--|
| 1. Petit Battement | point foot with turnout position. |
| 2. Grand Battement | kick of the leg at least waist height. |
| 3. Frappé | brush foot so toe just leaves floor |
| 4. jeté | jump from one foot to the other, <u>cue: brush cut</u> |
| 5. balancé | step side, back front, waltz rhythm. |
| 6. Pas de bourré | foot pattern, back, side, front. |
| 7. changement | changing position of feet, front to back, or back to front. |
| 8. développé | any straightening of the leg. |
| 9. Assemblé | jump off one foot at a time, land both together. |
| 10. Sissonne | jump off both feet land one at a time. |
| 11. Echappé | feet slide to 2nd (relevé) and back to fifth position. |
| 12. Sauté | step kick front 1/2 turn to arabesque. |
| 13. Tour - Jeté | kick switch with a half turn. |
| 14. Pas de Chat | leap, raising legs to passé one at a time, (cue) up-up down. |
| 15. Cabriole | step kick beat in front or back. |
| 16. Rond de jambe | circular movement of leg or foot. |
| 17. Bourré | little tiny steps done in relevé. |
| 18. Chainés turn | step together step turning. |
| 19. chassé | step together step (slide or gallop). |
| 20. Pas de basque | step side front together, the second step comes through first. |
| 21. Glissade | brush pointé close. |
| 22. Ballonné | Battement of the leg, as leg descends the foot goes to coupé. |

Ballet, form of theatrical dance that began to evolve in Western Europe during the Renaissance (1300-1600). Ballet technique consists of stylized movements and positions that have been elaborated and codified over the centuries into a well-defined, though flexible, system called academic ballet, or *danse d'école*. The word ballet can also denote an individual artistic composition using this dance technique. Such a composition is usually, but not inevitably, accompanied by music, scenery, and costumes. Toe dancing is often considered synonymous with ballet, but ballet technique can be performed without toe dancing. Because the steps were first named and codified in France, French is the international language of ballet.

The term line in ballet refers to the configuration of the dancer's body, whether in motion or at rest. Good line is partly a matter of the physique a dancer is born with, but it can also be developed and enhanced by training. In ballet, certain relationships of the arms, legs, head, and torso are considered particularly harmonious, while others are not, although they may be perfectly acceptable in different forms of dance. Large movements of the whole limb are preferred to small, isolated movements of individual body parts. Ballet is often described in terms of moving upward and outward; ideally, the dancer's limbs should appear to extend into infinity.

Some frequently seen positions include the arabesque, in which the dancer extends one leg backward in a straight line, and the attitude, a leg extension forward or back with a bent knee. Turning steps include the pirouette, a turn on one leg with the other leg raised; and the fouetté, in which the free leg whips around to provide impetus for the turns. Among the steps of elevation are the entrechat, in which the dancer jumps straight up and beats the calves of the legs together in midair, and the jeté, a leap from one foot onto the other. These steps include many different variations.

Dance in general underwent an enormous upsurge in popularity beginning in the mid-1960's. Ballet began to show the influence of a younger audience, in both themes and style. The athleticism of dancing was enjoyed in much the same way as sports, and virtuosic steps were admired for their challenge and daring. Popular music such as rock and roll and jazz was used to accompany many ballets.

Today's ballet repertoire offers great variety. New ballets and reconstructions and restagings of older ballets coexist with new works created by modern-dance choreographers for ballet companies. Choreographers experiment with both new and traditional forms and styles, and dancers constantly seek to extend their technical and dramatic range. The frequent tours of ballet companies allow audiences throughout the world to experience the full spectrum of today's ballet activity.

BEGINNING BALLET

A WHOLE NEW WORLD

DANCE 1

Facing U.S., L. diagonal, *coupe arabesque* R

- Intro:** *Port de bra* R, 1st to 5th, 1/2 turn R
 Port de bra L, 1st to 5th, relevé
 Walk D.S., RLR in *relevé* step L *plié*
 Port de bra low 1st to 2nd
1. (8cts) *Chassé* L, R *battement arabesque*
 Chassé R, L *battement arabesque*
 2. (8 cts) *Chassé* L, R *Grand battement développé* front *tendu* L R L
 3. (16 cts) Walk L, R, L, in circle to L, slide R through 1st to pose. (Arms 5th, legs *petite battement arabesque* L) *plié* to *petite battement* R front, arms R, 3rd. *Tendu* R, *piqué* R, *Tendu* R
 (32 cts) Repeat 1, 2, 3 reversed
 4. (8 cts) *Balancé* L, *chaines* R, step hop *arabesque* R & L
 5. (8 cts) *Tendu* L, R, L, L, *relevé passé* to B. 5th 2 *changements*.

6. (8 cts) *Pas de bourree* L R L, R L R, L R L turning, R outside *relevé* pirouette
 (24 cts) Repeat **4, 5, 6** reversed
 (8 cts) Step 2nd *plié* (*port de bra* arms circular R to L through 1st.)
Sous-sous turn L
7. (8cts) *Glissade* R, *pas de chat* R, *eschappé*
 2 *changements*
8. (8 cts) 3 *Pas de basques* in circle R, L, R *sous-sous* F.
 (16 cts) Repeat **7, 8** reversed
 (16 cts) *Chassé* F, *pique* R, *chasse* B, *coupe* L.
Chassé F, *assemblé* R 2 *sissones* to S.R., hold count 8.
 (8 cts) *Jeté* L, *pas de bourree* R, *assemblé* L, *sous-sous*.
 (8 cts) *Chassé* R, *saute* L, *chassé* R, *rond de jambé* R to face D.S.
 (8 cts) *Balancé* R, *chaines* L, step hop *arabesque* L & R
 (8 cts) *Tendu* R L R R, *relevé passé* to B. 5th 2 *changements*.
 (8 cts) *Pas de bourree* R L R, L R L
 (8 cts) *Ballone* L, *Ballone* R
petite battement. R *croisse* D.S.L.
 (*Port de bra* 1st to 2nd palms up)

Modern Dance, tradition of theatrical dance unique to the 20th century. Modern dance flourished in areas that lacked strong ballet traditions, such as in the United States where ballet companies were imported from Europe. Although modern dance originated in Europe, by 1930 the United States had become the center for dance experimentation. Many early modern dances were miniatures - solos of highly compressed effect. They were unlike anything known, for dance at that time was dominated by late 19th century ballets, which were characterized by large casts, a great variety of dance numbers, and spectacular scenic effects. But ballet itself was not always so monumental in scale, and just as ballet has evolved over the centuries as a changing tradition, so also has modern dance during its shorter period of existence.

Observable Characteristics

Modern dance, having begun as a reaction against ballet, is perhaps more easily defined by what it is not than by what it is, and it is often defined in contrast to ballet. Certain broad traits, however, can be observed in much of the enormously varied modern dance that has been created in the 20th century.

The Choreographer-Performer

In modern dance, the tendency is for one artist to act as both choreographer (see Choreography) and performer - and frequently also as scenic, costume, and lighting designer. During the last 300 years of ballet, in contrast, choreographers have seldom continued to dance when they were at the height of their choreographic achievements. Unlike ballet choreographers, who rely on a language of codified steps, modern dancers create their own conventions, or dance language; thus, they usually find it a practical necessity to both choreograph and perform.

Creation of a Dance Language

Because a dance language involves elements such as posture, use of the body's weight, and the character of movements (sinuous, angular, and so forth) - as well as specific movements of the head, torso, hands, arms, legs, and feet - most creators of modern dance have considered it essential to examine their own style of movement and to develop theories about its sources. Such explanations may refer to the physical dynamics of dance motions, such as the role of gravity or of breathing or the spine; or the theories may refer to ethnic and other non-ballet traditions.

Use of Space

In keeping with the conventional language of ballet, the ballet dancer's movements are developed from a basic orientation of facing the audience from the front of the stage. At the same time, the ballet dancer maintains an erect posture and a turned-out position - that is, legs rotated outward from the hips. Modern dancers, in contrast, usually assume a multidimensional orientation in the theater space. Their actions make use of all dimensions of space -the dancers often stand sideways to or turn their backs on the audience, and they do not always remain upright and deliberate falling motions are common. Despite the variety of modern dance styles, they generally tend to take into account the weight of the body, whereas ballet requires the dancer to create the illusion of freedom from gravity, of effortlessly jumping and soaring through the air.

Relation to Music

Another aspect of much modern dance concerns the relation of movement to music. In traditional ballet the momentum and impulses of the dance movement typically parallel the rhythms of the music. Such a parallel may be present in modern dance, but it is not assumed that this must be the case. The dance may be composed first and the music written afterwards, underscoring the impulses of the dance movement, or the momentum of the dance may run counter to the rhythms of the music. Music may even be absent, the sounds of the dancers' movements being heard against a backdrop of silence. (This independent relation of modern dance and music has, in fact, influenced some contemporary ballet.)

History

The history of modern dance may be divided into three periods - one beginning about 1900, one about 1930, and one after World War II ended in 1945.

Early Period

The first three decades of modern dance -embracing the careers of the American dancers Isadora Duncan and Ruth St. Denis and the German dancer Mary Wigman - were preceded by a period of reaction against what many dancers saw as the empty spectacle of late 19th century ballet. Contemporary with this reaction were two developments that helped inspire a freer kind of dance movement. One was the system of natural expressive gestures developed by the 19th century French philosopher of movement, Francois Delsarte, as an alternative to the artificial mannerisms then customary in the theater. The other was eurhythmics, a system for teaching musical rhythms through body movement, created by the Swiss music educator Emile Jaques-Dalcroze and later used as a training method by many dancers.

Seeking to give their dance more communicative power, the early modern dancers looked beyond the dominant tradition of Western theatrical dance -ballet as they new it in the late 19th century - and drew on earlier or non-Western sources for inspiration. During the same period, some ballet choreographers, such as the Russian-born Michel Fokine, also looked to similar sources, reacting against late 19th century ballet as vehemently as the modern dancers did.

Isadora Duncan used Greek sculpture as a movement source. She danced in bare feet rather than in ballet slippers and appeared in a simple tunic rather than in the corseted ballet costume of the late 19th century. Locating the source of movement in the solar plexus, she created dances that alternated between resisting and yielding to gravity. Her response to the music of romantic composers such as Frederic Chopin and the Hungarian Franz Liszt dictated the form of her choreography.

Ruth St. Denis turned to the dance styles of India, Egypt, and Asia, as the basis for her compositions. Like Duncan, St. Denis began as a solo dancer, but in 1915 she formed a company, Denishawn, with her husband, Ted Shawn. She trained dancers to dance as she did, in a diverse range of styles. Later American choreographers such as Katherine Dunham and Pearl Primus continued St. Denis's interest in ethnic styles.

Mary Wigman looked to Africa and Eastern Asia for choreographic inspiration. Like St. Denis, she presented both solo and group works, often arranged in cycles. Along with other German modern dancers - Rudolf Von Laban, Kurt Jooss, and Harald Greutzborg - she made extensive use of masks. The rise of the Nazi political party in Germany in the 1920's ended the German modern dance movement.

1930's

About 1930, in New York City, the second wave of modern dancers emerged. They included the Americans Martha Graham, Doris Humphrey, and Charles Weidman, all of whom had danced with Denishawn, and the German-born American dancer Hanuya Holm, who came from Mary Wigman's company. These dancers rejected external movement sources in favor of internal ones. They turned to basic human movement experiences, such as the actions of breathing and walking, and then transformed these natural actions into dance movement.

Martha Graham evolved her technique of contraction and release from the natural exhalation and inhalation of breathing. In her early abstract works she explored movement initiated in the torso. In the late 1930's Graham became interested in narrative structure and literary subject matter. With the Japanese-American sculptor Isamu Noguchi she create narrative locales that were both mythic and psychic. She danced the roles of female protagonists confronting moments of crisis; other dancers represented various aspects of the protagonist's self in crisis.

Doris Humphrey evolved her technique of fall and recovery from the natural dynamic of the human footfall, the giving into and the rebound from gravity. This technique became a metaphor for the relationship of the individual to a greater force, whether a social group or spiritual presence. After Humphrey stopped performing and disbanded the company she had formed with Charles Weidman, she continued to choreograph for her protégé, the Mexican-American dancer and choreographer Jose Limon. The choreographic sources for Humphrey's later works were words and gestures rather than her own movement experiences.

Hanya Holm worked in a more varied range than either Graham or Humphrey did. She created humorous dances and dances of social commentary, as did Weidman. Beginning in the late 1940's, she also choreographed for musicals, being one of the first to bring the style of modern dance to the Broadway stage.

During the 1930's choreographers defined modern dance and ballet in opposition to one another. Whereas modern dance was established as a technique with its own internal coherence, ballet was defined by reaffirming the essential tenets of its tradition. Ballet and modern choreographers focused on the purity of their traditions.

DANCE 2 CHOREOGRAPHY GUIDELINES

THEME: When choreographing a dance routine there should be a major theme or purpose to the composition. That theme should be emphasized through the movement, music, and costumes or props the dancer choose.

CHOREOGRAPHY COMPONENTS:

1. SPATIAL RELATIONSHIPS:

- a. All compositions should have a balance of space elements.
 1. Directions of travel
 2. Level change
 3. Floor pattern
 4. Group formations
 5. Stage awareness
 6. Positive and negative space

2. TIME: RHYTHM AND SPEED

- a. Change of tempo
- b. Musical crescendo
- c. Range of motion

3. MOVEMENT QUALITIES:

- a. Sustained: slow continuous movement
- b. Suspended: feeling of weightlessness
- c. Percussive: strong powerful movement
- d. Vibratory: shimmer, or shaking
- e. Collapse: quick controlled fall to floor
- f. Swing: pendulum

4. COMPOSITIONAL FORMS:

- a. Two part form AB
- b. Three part form ABA
- c. Rondo form ABACA

5. STYLE:

- a. Style of the movement should fit the theme. Ballroom, Rock n Roll, Disco, Jazz, Ballet, Modern, Line, Funk
- b. Use of Prop: Enhances theme. Creates focus.

DANCE EXERCISE

ACTIVITY DESCRIPTION:

The four major units in this course are dance aerobics, water exercise, step aerobics, and fad dancing. Other mini-units may include roller blading and power walking. Fitness testing will take place in the spring. The students will use popular music and dance steps to create aerobic exercise routines in these four areas. The student will review concepts of aerobic exercise and apply them to routines they participate and create themselves.

BENEFITS OF ACTIVITY:

1. Dance Exercise is designed to improve fitness levels through a variety of high, medium, and low impact aerobic dance routines as well as toning exercise programs for specific muscle groups.
2. Making exercise enjoyable for the learner will encourage a life-long habit of healthy living.
3. A variety of exercise programs are presented to meet every learners needs.
4. Students are taught to evaluate video tapes and exercise programs for the effectiveness and safety of the consumer.
5. Develop a positive attitude toward dance as a physical fitness activity and art form.
6. Improve overall and promote physical fitness through dance.

TERMINOLOGY: Refer to freshman concepts in the aerobic section and glossary of the handbook.

RULES AND SAFETY:

1. Proper attire is required to ensure free movement and support of legs and feet.
2. Students should remain aware of body positions especially during toning sections.
3. Proper warm-up and cool down is essential.
4. All other rules of Physical Education apply to Dance Exercise.
5. Attendance is important to keep fitness levels improving.

STUDY APPLICATIONS: (See Study Guide)

INTRODUCTION TO MOVEMENT

When we think of the word movement, we usually associate it with traveling from one place to another as in “move out of the way.” It is more than just a way to physically travel. It is a way of self expression, a way of interpreting music, and an internal clock that can aid us in athletic prowess.

In order to move, we must all have rhythm. The way we walk, run, jog, dribble a basketball, swim or dance, each one of these tasks has its own unique rhythm. Without rhythm movement would be quite awkward. Learning to have an ear for rhythm or a feel for rhythm will help us become more efficient in movement in general.

BENEFITS OF MOVEMENT

If we understand our own body rhythm we will become more efficient in movement. For example, Michael Jordan has incredible rhythm when it comes to the game of basketball. He is in tune to his body the entire game and is aware and in control of every movement his body makes. The rhythm of his game changes from fast to slow or vice versa. He can make these adjustments easily because he is in tune with his own body’s unique rhythm.

We ourselves control body rhythm every time we walk down the hall. We all have a unique way to walk, run, skip, or jog. No two people are quite the same, yet we can be together and be moving at the same time.

We can then take movement and adapt it to the rhythm of music. It is not our own rhythm, but an interpretation of the music we listen to or the concept we want to express. This is dance. Dance can be a form of self expression, and interpretation of music or a way to tell a story through movement.

TERMINOLOGY:

Locomotion	Traveling from one point to another.
Locomotion Movements	Movements which aid in traveling from one point to another.
Even Locomotion Movements	Those which fall in a 4-4 count, i.e. walk, run, hop, jump, leap.
Uneven Locomotion Movements	Those which fall in a 3-4 count, i.e. skip, gallop, slide.
Axial Movement	Movement that rotates on an axis.
Phrasing	Grouping together of rhythmical counts (usually 8 beats).
Accenting	Over exaggeration of a movement or rhythm.
Tempo	The actual count or rhythm of the movement or music.
Percussive	Sharp, fast, strong movement.
Sustained	Slow, smooth, flowing movement.
Level Change	Changing the height of the movement (high, medium, low).

*****SEE MODERN DANCE SECTION FOR ADDITIONAL TERMS*****

STUDY QUESTIONS

1. Name four different locomotor movements and indicate whether they are even or odd.
2. Name three physical benefits of studying movement.
3. Put together a 16 count phrase with four different movement components.

FITNESS AND NUTRITIONAL ANALYSIS

ACTIVITY DESCRIPTION:

Fitness and Nutritional Analysis is an interdisciplinary course taught by the Physical Education Department and the Family & Consumer Sciences Department. It is a semester course available for students grades 10 - 12. Credit is 1/2 through the Family and Consumer Sciences Department and 1/8 credit through the Physical Education Department.

Students in this course will attend class for a two-hour block of time. One hour of this will include the normally scheduled lunch period with a nutrition class and the other hour a physical education activity period. This schedule may vary so that on some days students will spend two hours in a physical activity such as bowling, a nature walk on the trails or other feasible local recreational activities.

BENEFITS OF ACTIVITY:

1. The main objective of this course is to provide students a laboratory experience in nutritional food preparation and an opportunity for students to monitor their food intake and energy expenditure through computer analysis on a regular basis.
2. It is hopeful that through consistent, regular monitoring of these two critical areas that the student will learn to make healthy decisions with regard to exercise and nutrition and, therefore, improve their lifestyle.

RULES & SAFETY:

1. The rules governing this course vary somewhat from other physical education courses because it is an interdisciplinary course taught by the Physical Education department and the Family and Consumer Sciences Department.
2. Students will actively participate in the planned daily physical education activities.
3. Students will participate in nutrition laboratory assignments and be able to analyze the food they have prepared.

TERMINOLOGY:

Various Wellness Concepts and the glossary will be utilized in this class.

STRENGTH TRAINING AND CONDITIONING

ACTIVITY DESCRIPTION:

This is an eighteen week elective course for Juniors and Seniors which will focus on the development of proper safety, technique, and application of current principles of strength training. The students will engage in activities during the semester in which they will learn the function, location, and proper means to develop muscle groups in order to improve their over-all fitness level. Related topics such as nutrition, flexibility, and cardiovascular fitness will be covered in order to create a more thorough understanding of the importance of each in a balanced lifestyle.

BENEFITS OF ACTIVITY:

1. Proper lifting techniques;
2. Lift using the full range of motion of muscle groups;
3. Determine maximum lifting potentials;
4. Apply the principles of warm-up / cool-down and stretching prior to and after each workout.
5. Develop strength by performing appropriate sets and repetitions as prescribed in their individual program;
6. Develop muscular endurance, cardiovascular endurance, and improve body composition
7. Develop your own strength training program;
8. Demonstrate knowledge of safety in a weight training program;
9. Demonstrate proper breathing techniques;
10. Demonstrate knowledge of appropriate flexibility techniques;
11. Demonstrate an understanding of muscle groups and their functions.

TERMINOLOGY: See Muscle Group chart in the reference section

RULES AND SAFETY: See Weight Training Unit section for safety rules.

STRENGTH AND CONDITIONING

COMPONENTS OF A GOOD LIFT:

1. Good spinal alignment
2. Slow, steady repetition
3. Exhale on exertion
4. Full range of motion (ROM)

VARIABLES:

Variation of stimulus seems to be the key in effecting change in the muscle tissue and will allow better development of strength and power.

1. Choice of exercises
2. Order of exercises – Work large muscles first
3. Amount of Weight
4. Number of sets/ reps
5. Rest periods

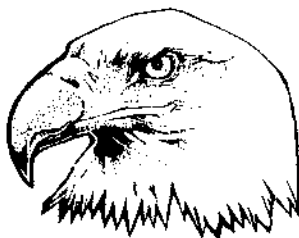
FOUR BASIC PHASES OF PERIODIZATION:

1. Hypertrophy phase (high volume, low intensity) 10 reps., 3-5 sets
2. Basic Strength phase (moderate volume, high intensity) 5 reps. 3-5 sets
3. Strength-Power phase (low volume, very high intensity) 2-3 reps., 1-3 sets
4. Peaking or Maintenance: 2-3 reps., 1-3 sets

Active Rest: Take 2 to 4 days off 2-3 weeks other activities or very light technique work.

DEFINITIONS:

1. Hypertrophy – The enlargement of muscle that results from weight training
2. Intensity – The tension or stress put on the muscle. It is dependent on the number of sets and reps., rest between sets, duration of workout, but most of all on the amount of weight used.
3. Muscular Endurance – The ability of a muscle to perform work by continuing to raise and lower a submaximum load – large number of reps
4. Muscular Strength – The force a muscle can exert against resistance in one maximum effort
5. Overload Principle – For a muscle to get stronger, it has to be overloaded.



PHYSICAL EDUCATION ACTIVITIES

Aerobics

Badminton

Basketball

Floor Hockey

Football (Flag, Touch)

Introduction to Movement

Lacrosse

Leaders - Physical Education

Pickleball

Razzle Dazzle (Navy Ball)

Soccer

Softball

Speedball

Step Aerobics

Swimming (All Levels)

Team Handball

Tennis

Tumbling

Ultimate Frisbee

Volleyball

Water Polo

Weight Training

Wrestling



AEROBICS

DEFINITION:

Exercises which demand large quantities of oxygen for prolonged periods and ultimately force the body to improve those systems which transport oxygen.

BENEFITS OF ACTIVITY:

1. Aerobic exercise promotes strong and healthy bones. Bone, like muscle, tends to get stronger and thicker the more it is exercised.
2. The total blood volume increases, so that the body is better trained to transport oxygen.
3. Lung capacity increases and this increased capacity to deliver oxygen is associated with a greater longevity.
4. The heart muscle grows stronger and with each heart beat there is an increased stroke volume which pumps more oxygenated blood through the circulatory system.
5. HDL or High Density Lipoprotein, increases as a result of aerobic exercise. This "good" cholesterol helps reduce the potential for developing arteriosclerosis, or hardening of the arteries.

TERMINOLOGY:

Aerobic	see definition at beginning of section
Anaerobic	without oxygen - short bursts of energy followed by a resting phase Ex. weight training
Cool-down	allows the muscles to release metabolic wastes built-up during activity and allows body functions to return to normal
Target Heart Rate Formula	$220 - \text{age} - \text{resting heart rate}$, multiply 65% - 80% + resting heart rate
Warm-up	method of preparing muscles especially the heart for activity

F.I.T.T. PRINCIPLE

frequency	how often? 3 X 5 times a week for beneficial results
intensity	how hard you work? Monitoring your exercising heart rate; it should be in the target heart range of 65 - 80%.
time	how long? At least 20-60 minutes each work-out for cardiovascular benefits
type	what kind of exercise?

Outdoor

walking, slow jogging
bicycling
hiking
cross-country skiing
roller blading
running

Indoor

stationary bicycle
rowing machine
treadmill
stair climbing
aerobic dance
step aerobics
long distance swimming

* Other activities such as basketball, soccer, or tennis may be aerobic if the participant is continuously moving and elevates heart rate to the appropriate level.

Aerobic Dance

1. Time – how long – at least 20 minutes
2. Intensity – what to do to vary intensity:
Add arm movement, higher the arms the greater the intensity.
Change tempo. Increase speed and move faster to increase intensity.
Make movements high impact by jumping and making movements larger.
3. Phasing – 8 counts in a phase and 32 count combinations

BASIC PATTERNS:

Grapevine	lunges	cha cha	step together
leg curls	heel taps	scoops	squats
twists	pivot	pony	triplets
jumping jacks	mamba	knee lifts	side touch

SAFETY:

Proper warm-up and cool-down should take place prior to and after the aerobic activity incorporating stretching, targeting muscle groups used in the activity.

Proper apparel and foot wear should be worn during the activity.

The heart rate should be periodically monitored during the activity to attain a training effect (the activity level should remain within the individuals target heart range).

Activity level should be progressively increased during the course of the unit.

GENERAL QUESTIONS:

Aerobic exercise or an aerobic activity is:

any activity which requires the _____ and _____ to supply oxygen to the body for a long period of time.

Examples of aerobic activity: Name 5: _____

How does a person improve their aerobic fitness? _____

What is aerobic training?

Target Heart Rate. What should it be?

How many minutes should your heart work at T.H.R.?

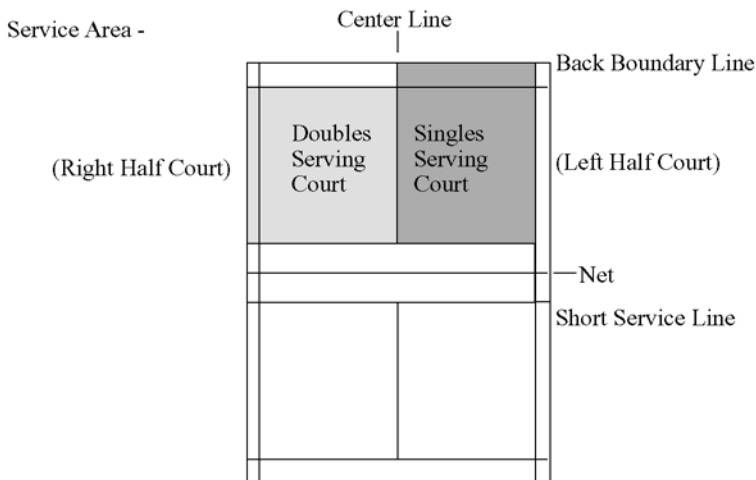
How many times per week?

BADMINTON

BENEFITS OF ACTIVITY:

Badminton is a valuable leisure (recreational) time activity in which two (singles) or four (doubles) players try to volley a shuttlecock back and forth across the net; the object being to prevent the opponent from returning the shot and scoring fifteen points. When properly played, badminton requires speed, cardiovascular endurance, power and agility.

TERMINOLOGY:



Court:	Doubles	long & wide
	Singles	long & narrow
Service Areas:	Doubles	short & wide
	Singles	long & narrow

BASIC RULES

1. Boundary lines are in play.
2. When the shuttlecock strikes the net, but still lands in the proper service area, the serve is good.
3. Shuttlecock can only be hit once on each side.
4. Shuttlecock cannot be struck by one team, while it is still on opponent's side of the net.
5. Any contact with the net causes a loss of point or serve.
6. Score should be called before each serve.

Example: *your score, opponent's score*

0 -serving 8

SHOTS TO MASTER

1. High clear
2. Dink or drop shot
3. Smash
4. Serves
 - a. High clear
 - b. Short serve
 - c. Drive serve

When serving Doubles -short serve is best.

When serving Singles -long serve is best to utilize.

SAFETY RULES:

1. Students should warm-up and stretch prior to activity.
2. Students should use proper safety precautions when handling equipment
3. If common boundaries are used, caution should be exercised.
4. Cooperation and communication between partners is essential for proper play and safety.

BADMINTON RULES

Rally Scoring

SIMPLIFIED NEW RALLY POINTS SCORING SYSTEM

Scoring System

- A match consists of the best of 3 games of 21 points.
- The side winning a rally adds a point to its score.
- At 20 all, the side which gains a 2 point lead first, wins that game.
- At 29 all, the side scoring the 30th point, wins that game.
- The side winning a game serves first in the next game.

Points – Singles

- At the beginning of the game and when the score is even, the server serves from the right service court. When it is odd, the server serves from the left service court.
- If the server wins a rally, the server scores a point and then serves again from alternate service court.
- If the receiver wins a rally, the receiver scores a point and becomes the new server.

Points – Doubles

- There is only one serve in doubles (see next page). The service passes consecutively to the players as shown in the attached diagram.
- At the beginning of the game and when the score is even, the server serves from the right court. When it is odd, the server serves from the left court.
- If the serving side wins a rally, the serving side scores a point and the same server serves again from the alternate service court.
- If the receiving side wins a rally, the receiving side scores a point. The receiving side becomes the new serving side.
- The player of the receiving side who served last stays in the same service court from where he served last. The reverse pattern applies to the receiver's partner.
- The players do not change their respective service courts until they win a point when their side is serving.

THE RALLY MAY BE LOST IN THE FOLLOWING WAYS:

- a. On the service:
 1. If the server's racket head is above his/her waist or hand at the time the bird is hit.
 2. If either of the server's or receiver's feet touch the line during the serve.
 3. If some part of each foot of both server and receiver does not remain in contact with the floor.
 4. If the server feints or balks.
 5. If the bird served is hit into the net or outside the intended service court.
 6. If the receiver's partner returns the bird, the server wins the point.
- b. During the rally:
 1. If the bird is hit into the net, under the net, into the wall, roof, or other permanent fixture, outside the boundary line.
 2. If the bird hits your person or clothes.
 3. If a player hits the net with her body or anything she wears or carries.
 4. If a player contacts the bird before it crossed the net.
 5. If the bird rests momentarily on the strings and is slung or carried.
 6. If a player hits the bird twice before it crosses the net, or if the rackets of teammates contact the bird before it crosses the net.
 7. If a player obstructs an opponent. It is obstruction to step into an opponent's court.
 8. If a player serves or receives out of turn and her side loses the rally. If her side wins and the mistake is discovered, that point is replayed.

In a Doubles match between A & B against C & D. A & B won the toss and decided to serve. A to serve to C. A shall be the initial server while C shall be the initial receiver.

Course of action / Explanation	Score	Service from Service Court	Server & Receiver	Winner of the rally		
	Love All	Right Service Court. Being the score of the serving side is even.	A serves to C A and C are the initial server and receiver.	A & B.	C	D
					B	A
A & B win a point. A & B will change service courts. A serves again from Left service court. C & D will stay in the same service courts.	1-0	Left Service Court. Being the score of the serving side is odd.	A serves to D	C & D.	C	D
					A	B
C & D win a point and also right to serve. Nobody will change their respective service courts.	1-1	Left Service Court. Being the score of the serving side is odd.	D serves to A.	A & B.	C	D
					A	B
A & B win a point and also right to serve. Nobody will change their respective service courts.	2-1	Right Service Court. Being the score of the serving side is even.	B serves to C	C & D	C	D
					A	B
C & D win a point and also right to serve. Nobody will change their respective service courts.	2-2	Right Service Court. Being the score of the serving side is even.	C serves to B	C & D	C	D
					A	B
C & D win a point. C & D will change service courts. C serves from Left service court. A & B will stay in the same service courts.	3-2	Left Service Court. Being the score of the serving side is odd.	C serves to A	A & B	D	C
					A	B
A & B win a point and also right to serve. Nobody will change their respective service courts.	3-3	Left Service Court. Being the score of the serving side is odd.	A serves to C	A & B	D	C
					A	B
A & B win a point. A & B will change service courts. A serves again from Right service court. C & D will stay in the same service courts.	4-3	Right Service Court. Being the score of the serving side is even.	A serves to D	C & D	D	C
					B	A

Note that this means

- the order of server depends on the score odd or even same as in singles.
- The service courts are changed by the servicing side only when a point is scored. In all other cases, the players continue to stay in their respective service court from where they played previous rally. This shall guarantee alternate server.

BASKETBALL

- BENEFITS:** Develop team skills (teamwork / cooperation)
 Aerobic training
 Life long leisure activity - play anywhere/anytime
 Coordination, quickness, speed, strength
 Body spacial awareness



TERMINOLOGY:

Foul	Infringement of the rules, consisting of free throws being awarded or ball awarded out-of-bounds (pushing, tripping, unnecessary roughness, holding, charge/block)
Back Court	An area consisting of half of the floor where opponents basket is located
Front Court	An area consisting of half of the floor where your teams basket is located
Player Control	When a player is holding or dribbling a ball
Violation	An infringement of the rules where ball is awarded out of bounds
Double Dribble	Dribbling with two hands at once, or stopping a dribble, hold the ball, and dribbling again while in control of the ball
Traveling	Taking more than one step without dribbling
Free Throw	Awarded to a player when he is fouled in act of shooting (1 pt)
Field Goal	Any 2 point or 3 point basket
Lane	Area consisting of shaded area under the basket
3 seconds	Offensive violation -offensive players cannot spend more than 3 seconds in the lane
Held Ball	Two players simultaneously have control of the ball
Alternate Possession	Awards the ball to one team when a held ball situation occurs, or when two players simultaneously knock ball out of bounds
Pick & Roll	An offensive technique where an offensive player screens for a teammate who has the ball, and then rolls to the basket looking for a pass
Man-To-Man	A defensive team strategy where defensive players defend an offensive player. They are responsible to stop their assigned man from scoring. Best used against a good outside shooting team, or to apply defensive pressure.
Zone	A defensive team strategy where all five defensive players defend an area. Used to force a team to shoot from outside. (Ex. 2-3, 1-2-2, 1-3-1)
Box Out	Technique used by rebounding player -keeping himself between basket and opponent.
Screen	Offensive technique - an offensive player positions himself to block a defensive player who is guarding an offensive teammate. The screener cannot move, and he/she must allow room for the player being screened to see the screen.
Defensive Position	(verticality) -Proper defensive position is when a defensive player establishes position in an area before the offensive player arrives there. Proper defense is played with the feet, not the hands. When established, defensive position, the defensive player is entitled to the space from the floor to the ceiling, they may have their hands/arms over their head, as long as their body is straight up and down (vertical).
Safety/Rules	Rough/aggressive playing will not be tolerated. *No Jewelry. Be honest and fair with opponents. Proper warm-up (running, stretching). Students must wear gym shoes.

STUDY GUIDE:

A violation - An infraction which causes the offensive team to lose the ball.

If a player lands on both feet at the same time, with the ball, either foot may be the pivot foot.

The most important fundamental in playing defense is to move the feet.

When shooting the ball, one hand shoots and one hand guides.

When guarding an opponent, it is important to stay between the player and the basket.

FLOOR HOCKEY

BENEFITS:

1. A fun, recreational team activity using similar skills (stick handling) as the sport of ice hockey.
2. A fast paced cardiovascular non-contact activity emphasizing stick handling, passing, and shooting a puck or ball at a goal in an effort to outscore the opposing team.

TERMINOLOGY:

<u>Crease</u>	is the rectangular area and no man's land around the goalie area.
<u>Face-off</u>	this initiates play at the beginning of the game and after each score. The puck is placed at midcourt on the floor and both centers place their sticks within six inches of the puck. When the referee blows his/her whistle play begins.
<u>High Sticking</u>	occurs when a player raises his/her stick (blade) above the waist at any time. It is a penalty and the player sits out of play for a designated time period. It usually occurs after a shot is taken and during the follow through.
<u>Penalty</u>	a penalty occurs when the referee has determined an infraction of the rules has taken place. The player charged is removed from play for a designated time period and his/her team must play short handed.
<u>Stick Handling</u>	Controlling the puck with the hockey stick so that the defense cannot take it away. (Similar to dribbling and protecting the ball in basketball).
<u>Wrist Shot</u>	A shot or effort to score a goal by the offensive player hereby he/she primarily uses the wrists to flick the puck toward the goal. This kind of a shot allows the offensive player to raise the puck during his/her attempt.

SAFETY PRECAUTIONS:

- Never allow the stick to be raised above the player's waist.
- No checking of an opponent is allowed at any time.
- Have the goalie wear a protective face mask to protect the face and mouth, and wear a goalie glove to protect the hand.
- Designate and enforce a crease area in front of the goal.
- The playing area should be twice as long as it is wide, with a center line clearly marked.

STUDENT ASSESSMENT:

- A. As a result of floor hockey, the student will demonstrate knowledge and understanding based on either a: written exam or b: criterion-referenced observation

PENALTY TIME - INFRACTIONS:

1. High Sticking - 2 minutes
2. Tripping - 2 minutes
3. Body Checking - 2 minutes
4. One additional minute for arguing with call No substitutions for penalty. Penalty off if goal scored.
5. Off side turnover

RULES:

1. Play the puck - not the man Penalty for - charging, pushing, hiping, tripping (with foot or stick) Penalty -one minute out of game. After 2 penalties per game offender sits out the rest of the game. Frequent offender can be suspended for one or more games -teacher's discretion.
2. Floor Position
 - a. Center - allowed anywhere on the floor
 - b. Offensive Wings - stay on offensive side of midline
 - c. Defenders stay on defensive side of mid-line, both feet on wrong side of midline determines an off-side violation.
3. Directing Puck That Is Off The Ground
 - a. Don't swing at puck if the stick blade rises above the waist line.
REMEMBER the stick blade must always stay below the waist. This includes stopping the puck, directing the puck, and shooting the puck.
Follow through counts as blade above waist.
 - b. If you block or catch the puck with your free hand you must put the puck down directly in front or beside you. You cannot throw the puck directly up the floor.
 - c. Goalie must, after catching the puck, release it to his right or left. He cannot throw the puck directly up the floor. However, he can direct the puck up the floor with his goalie stick.

GENERAL INFORMATION/ADDITIONAL RULES:

- Use of feet toward puck. No player may kick the puck up the floor or sideways. He may stop the puck with either foot, but must direct the puck with his stick.
- Six players, 1 goalie, 2 offense, 1 center, 2 defense
- Seven minute halves - 3-1/2 minute quarters. Substitutes rotate in at the quarters.
- Game starts with a face-off
- Best result happen with precise passing and shooting
- Players must play the puck - not the man. No checking
- Player may catch a lifted puck with his hand, but must drop it immediately and play it with his stick.

FOOTBALL (FLAG OR TOUCH)

BENEFITS OF ACTIVITY:

Learn team building skills. Life-long recreational activity.

SAFETY:

No flags worn under T-shirts or sweatshirts

No unnecessary roughness.

Players should abide by the rules of the game to make certain that the game runs more safe.

PLAYERS AND POSITIONS: OFFENSE:

Quarterback is the player that calls the plays and either passes or hands the ball off to another player.

Center is the player who starts with the ball every play and hikes it to the quarterback. After the center hikes the ball he/she is then going to be a blocker.

Guards are the linemen who block for the quarterback.

Ends are the players who go out for the pass or screen for the running backs. Can be called wide receivers.

Half Backs are the ball carriers or the running backs.

Full Back is a short yardage receiver and also a running back.

DEFENSE:

Defensive Guards are the players who rush the quarterback.

Defensive Half Backs are the players who defend against the running plays.

Safety is the player who defends against the pass and offers support on running plays also.

RULES:

1. To start the game the offensive team will take over 7 yards from the end line. (This is the kick-off).
2. Only one first down per possession, achieved by crossing the cones at mid-field.
3. Blocking below the waist will not be permitted. Blockers cannot leave their feet.
4. If playing touch football, there will be a 3 second delay before rushing.
5. On 4th down the offense must declare if they are going to punt or play.
6. Tackling, tripping, or any unnecessary roughness is not allowed.
7. Any ball dropped or thrown, that hits the ground, is a dead ball that cannot be recovered. There are no fumbles.
8. QB can run on any down.

ADDITIONAL FLAG FOOTBALL RULES:

Passing:

- A forward pass may only be attempted from behind the line of scrimmage.
- Offense can pass as many times as they want as long as they occur behind the line of scrimmage.
- Only one forward pass is allowed per down if the ball goes past the line of scrimmage.
- Any player can receive a pass. Ball Carrier:
- The ball carrier may not keep defenders from pulling their flags by pushing their hand away.
- The only way to prevent the defender from pulling the flag is to twist or turn around them.
- The ball carrier may hand-off the ball to any player that is either parallel to or behind him/her.
- The ball carrier may hand-off as many times as they wish. Rushing:
- There is no rush count. It has been replaced by the neutral zone. The offensive team must line up on the line of scrimmage, the defensive team begins three yards from them. The area between the two teams is called the neutral zone. If either team enters the neutral zone before the ball is snapped, it is called offsides, and a 5 yard penalty results.
- Flag Pulling:
- The flags must be worn on hips one on each side or a 5 yard penalty results.
- Pushing, hitting, or holding the ball carrier while attempting to pull the flags results in a 15 yard penalty from the line of scrimmage or from the spot where the foul was committed, whichever is greater.
- The defender must drop the flag at the spot which they pulled it off.

Dead Ball :

- A dead ball occurs if any of the following occur:
Ball carrier touches the ground with any part of his/her body other than the feet.
Ball carrier's flags are pulled.
Ball carrier goes out of bounds.
Incomplete pass.
Ball is fumbled.
After a touchdown or an extra point.
The punt hits the ground.
Simultaneous catch between receiver and defender.

TERMINOLOGY FOR FOOTBALL:

Center	Snaps the ball to the QB, he must snap it between his legs.
QB	Receives the snap from center and can either pass or run.
Line of scrimmage	A line that is drawn, parallel to the football, that divides the offense from the defense.
Lateral	A ball that is pitched backward from the ball carrier.
Offsides	When a player crosses the line of scrimmage before the ball is snapped.
Pass Interference	When a defender makes contact with a receiver before he touches the pass.
First down	A first down is awarded when a team passes the mid-field cone.
Goal line	Crossing this line with possession of the football results in a touch down.
End line	This is the line after the goal line, any ball caught past this line is out of bounds.
Extra Point	You can only get an extra point after a touchdown, 1 point for a pass and 2 points for a run.
Touchdown	6 points awarded when a team crosses the goal line while in possession of the football.
Safety	2 points awarded to the defensive team when the ball carrier is deflagged or declared down by touching in between his own goal line and the end line.
Forward Pass	A pass thrown from behind the line of scrimmage toward the opponent's line.
Fumble	Failure of a player to retain possession of the ball while running or attempting to receive a hand-off, center, or a lateral pass.
Hand-off	A quarterback handing the ball forward behind the line of scrimmage to a back field player.
Huddle	Two or more players conferring between downs, or could be the whole team.
Centering	The act of putting the ball in play.
Block	Action by the offensive linemen and backs in which they use their bodies to keep the defensive players from the ball carrier.

LACROSSE

Lacrosse is a game developed from an American Indian game played by various tribes in North America. The original game, as played by the Indians, had no fixed or definite rules. The purpose of the game was for each team to obtain possession of the ball and, holding it in a pocket carved out of a stick, carry it across a specified goal line. The game now has rules so that it is civilized and safe.

Lacrosse is played by two teams of ten players each; each team attacking the opponents goal and defending it's own. The objective of both sides is to put the ball into the opponent's goal and to prevent it from going into their own. All the running, dodging, passing, and checking tend to that end.

SAFETY

To assure student safety and to keep the game at a basic level in our physical education unit, we play a game called Stick Lacrosse, which is an adaptation of the official game. In Stick Lacrosse, there will be no goalies. Goals are placed in the middle of a 9 foot circle and no players are allowed to enter the goal circle. The team consists of three defensive players, 3 attack players and 3 mid-fielders. The rules for "Stick" Lacrosse are basically the same as for the official game, but do not allow any physical contact.

1. Never swing the crosse at any player.
2. Both hands must be on the crosse at all times.
3. No body checking at anytime.

4. Clothing worn should be appropriate to weather and field conditions.
5. Students should check their crosse before participation each day.
6. Only stick checks will be allowed and only on the head of the crosse.

THE FIELD

In regulation games of Lacrosse, the game is played on a field 110 yards long and 60 yards wide. There are some lines which are very important: the out-of-bounds line, the center line, and the off-sides lines. The goal is twenty yards from the endline and is in the center of a nine foot radius circle. Only the goalie can enter this circle, known as the crease. Attack men and defense men may not go beyond the midfield line.

OBJECTIVES

The student will be able to demonstrate:

1. passing the ball accurately to a fellow teammate;
2. cradling the length of half the field with control and correct form;
3. scooping with correct form for half the lacrosse field;
4. catching the lacrosse ball in the correct form;
5. the correct knowledge, skills, techniques, terms, rules and strategy of lacrosse on a written test;
6. the ability to line-up on the field in the correct positions of mid-fielder, attack, defense, and goalie;
7. an appreciation of lacrosse and desirable social traits necessary to participate in team play.

USE AND CARE OF EQUIPMENT

1. All equipment will be stored in proper containers and storage space.
2. There will be no misuse of equipment at any time, there will be NO:
 - slamming of sticks on the ground;
 - throwing of sticks;
 - abuse of goals and balls;
 - throwing rocks with crosse;
 - one handed playing; both hands should be on the crosse at all times.

RULES

1. No attacking player may enter the goal crease.
2. Only the goal-keeper may touch the ball with his hands.
3. An out-of-bounds ball is given to the side opposite of the player who touched it last, at the spot where it went out.
4. If the ball goes out-of-bounds on a try for a goal, it goes to the player who is nearest the ball when it went out-of-bounds.
5. No unnecessary roughness or unsportsmanlike conduct is allowed.

This includes fighting, hitting the body with the stick, tripping, body-checking from the rear, or any other illegal check.
5. No player may interfere with the progress of an opponent unless the opponent has possession of the ball or both players are within five yards of a loose ball.
6. When a player commits a foul, he is put in the penalty box for a period of 1 to 3 minutes. If a team is penalized, the other team is awarded the ball.
7. The object of the game is to score goals by throwing the ball into the goal of the opposing team.

LEADERS PHYSICAL EDUCATION

JUNIOR LEADERS

Junior Leaders is a year long course available to junior students who have applied to the program and have been accepted by the Physical Education staff. This year long course is designed to train students in leadership skills, skill instruction, and the techniques of assisting in various physical activities offered in the curriculum.

As a result of Junior Leaders, the student should be able to:

- Lead a physical education class in an assertive, confident manner through a 5 -7 minute daily warm-up including a variety of exercises including calisthenics, flexibility exercises, and cardiovascular activities.
- Officiate with a prior instruction, a variety of physical education individual and team-oriented activities;
- Assist a physical education teacher in teaching and demonstrating various skills and swimming fundamentals;
- Assist a physical education teacher in setting up equipment or fields;
- Assist in the following areas:
 - a. raising and lowering baskets in Eagle, Gold, & Blue gyms
 - b. opening and securing locker room and storage room doors
 - c. towel inventory, storage, and removal
 - d. identify and be able to use appropriate keys and locks in the physical education area.
- Take daily attendance accurately and quickly;
- Deliver positive reinforcement to classmates, when appropriate;
- Assist in the District 230 physical fitness testing process by understanding the test protocol and recording system;
- Identify potential risks/hazards in a physical activity teaching station and help the teacher eliminate them;
- Demonstrate an exemplary level of role modeling by wearing the appropriate leaders physical education uniform including leader's shirt, blue shorts, white socks, and gym shoes.

SENIOR LEADERS

Senior Leaders is a year long course available to senior students who have successfully completed the Junior Leader course. The Senior Leader is assigned to a Physical Education instructor and assists in those areas designated by the supervising teacher. This course provides a practical application of the skills learned in the Junior Leader Program. (See Junior Leader objectives).



JUNIOR LEADERS APPLICATION

If you are accepted in the Junior Leaders Program you are required to be a Senior Leader both semesters. Physical Education exemptions are not allowed for Junior or Senior Leaders.

1STSemester Freshman Physical Education Teacher _____ P. E. Grade _____

2ND Semester Freshman Physical Education Teacher _____ P. E. Grade _____

1ST Semester Soph. Health/Phy. Educ. Teacher _____ Health Grade _____

Percentile Rank _____

MOST RECENT PHYSICAL FITNESS SCORES:

Push-Ups-----

Partial Curls -----

Sit & Reach-----

Mile Run -----

1-1/2 Mile Walk -----

Pacer Exam -----

INVOLVEMENT IN OTHER SCHOOL ACTIVITIES:

BRIEFLY DESCRIBE WHY YOU SHOULD BE SELECTED FOR THE JUNIOR LEADER PROGRAM. INCLUDE IN YOUR DESCRIPTION WHAT CONTRIBUTIONS YOU WILL BRING TO THE PROGRAM.

AFTER COMPLETING THIS PAGE OF THE APPLICATION, TURN IT IN TO YOUR PHYSICAL EDUCATION OR HEALTH TEACHER.

Please rate the following individual who listed you as a former Physical Education teacher on his/her junior leader application.

1. **ACADEMIC** -The student demonstrated the importance of his/her education and consistently strived to improve. He/she always gave the best effort in class activities.
2. **ASSERTIVENESS** -The student is a leader and frequently takes charge when the opportunity occurs.
3. **TEACHABILITY/COACHABILITY** -The student is an avid learner and listens attentively to class activities and participates effectively.
4. **CONSCIENTIOUSNESS** - The student is conscientious and performs quality work in all areas.
5. **COMMUNICATION SKILLS** -The student effectively communicates in both verbal and written fashion. He/she has displayed a high level of participation in class activities.
6. **CONSIDERATION FOR OTHERS** - The student has demonstrated a good relationship with most students in the class and helps others when possible. The student has displayed empathy when dealing with other students.
7. **RESPONSIBILITY LEVEL** -The student has demonstrated an exemplary level of responsibility in class.
8. **SELF-CONFIDENCE** -The student is confident in his/her ability to lead others and demonstrates a high level of self-esteem.
9. **INTEGRITY** - The student has displayed a high level of honesty and is considered to be trust worthy in the role as a leader.
10. **POTENTIAL TO BE A LEADER** - Rate the student as to how you feel they would be as a junior and then senior leader for the next two years.

Students will be ranked by their previous three teachers. Ranking will be 1, 2, 3 or 4 -with 4 being the highest and 1 the lowest. Students should receive a total of 8 points or more to even be considered for the program.

SUCCESSFUL LEADERSHIP

The successful leader is:

1. Sensitive to the feelings of others while being considerate, helpful, responsive, and friendly.
2. Loyal to one's ideas and ideals and respectful of the beliefs, rights, and dignity of others.
3. Strong in his/her feelings of self-confidence and the ability to identify easily with fellow classmates and his/her supervisor.
4. Consistent, generous, humble, modest, fair and honest in dealing with others.
5. Interested in the improvement of the group while at the same time possessing the ability to get the job done quickly and in the most efficient and correct manner.
6. Sincere, straightforward, approachable, easy to talk to, alert to getting the best out of people. Open to suggestion, encouraging, enthusiastic, stimulating, inspiring, relaxed, and finally, a person who has maintained his/her sense of humor.

LEADERSHIP BEHAVIORS - ACTION - EXPECTATIONS

1. Industrious - To never quit working hard - worthwhile things come from hard work and careful planning.
2. Friendly - Comes from mutual respect, esteem, and a sincere liking for all.
3. Cooperative - Willingness to help others and see all sides of a situation.
4. Enthusiastic - Nothing great was ever accomplished without your heart being in your work. Enthusiasm motivates and stimulates others around you.
5. Poised - Just being yourself and being at ease in any situation. Never fighting yourself.
6. Self-confidence - confident not cocky, comes from faith in yourself and in knowing you are prepared for whatever happens.
7. Reliable - Others depend on you to fulfill the task at hand. You are punctual, well prepared, and get the job done.

TEACHING SKILLS

Teaching is basically a 4 step process.

STEP ONE - EXPLANATION AND INTRODUCTION OF SKILL

1. Introduce the skill

- a. Get everyone's attention.
- b. Arrange the class or group so everyone can hear.
- c. Name the skill and if possible, the reason for learning it.

STEP TWO - DEMONSTRATION OF THE SKILL TO BE LEARNED

- a. Prepare the group for the demonstration - tell the group exactly what to look for during the demonstration - adjust position so that all can see.
- b. Demonstrate and explain the skill - perform it several times from all angles, and if possible, for righties and lefties.
- c. Relate the skill being demonstrated to any other skills learned previously.
- d. Answer any questions the group might have.

STEP THREE - BEGIN PRACTICING THE SKILL

- a. Arrange the group and show them how to practice the skill.
- b. Practice the skill - make sure the group is performing the skill correctly. If some are not, try to break the skill into parts to aid them.

STEP FOUR - PROVIDE FEEDBACK TO CORRECT ERRORS

- a. Observe and evaluate performance - reward accordingly.
- b. Give feedback effectively.

Use the positive approach by complimenting effort and the part of the skill that were performed correctly.

WARM-UP JUNIOR LEADERS

1. PERSONAL CHARACTERISTICS:

- a. Enthusiastic
- b. Assertive
- c. Personable
- d. Encouraging
- e. Confident
- f. Loud enough for all to hear
- g. Specific to activity

2. EYE CONTACT:

- a. Get everyone's attention
- b. Clear directions and instructions
- c. Command "ready - begin"

3. WARM-UP:

- a. Elevate heart rate first:
 - b. jumping jacks
 - c. squat thrusts
 - d. jogging in place
 - e. running in place
 - f. mountain climbers
- b. Stretches:
 1. hamstrings
 2. various stretches
- c. Calisthenics:
 1. push-ups
 2. abdominal exercises
 3. triceps push-ups
- d. Arm stretches
- e. Achilles stretch - calf
- f. Partner stretches

BASIC TECHNIQUES OF STRETCHING

1. Don't stretch too far in the beginning. Get a slight stretch and increase it after you feel relaxed.
2. Hold a stretch in a comfortable position; the tension should subside as you hold it.
3. Breathe slowly and naturally - don't hold your breath.
4. Never bounce while trying to stretch -bouncing only causes the muscle to naturally tighten.
5. Think about the muscles you are trying to stretch. Try to relax and ease into a comfortable position.
6. Be patient and flexibility will come with time.
7. Everyday we are different -some days we are more tight than others -remember to relax!
8. Regularity and relaxation are the keys.
9. Don't compare yourself with others - you will improve if you work at it a little bit every day.
10. Stretching should not be painful but relaxing!

JUNIOR LEADER EVAL

NAME, LAST - FIRST _____

DATE - YEAR - SEMESTER - ATTEND # _____

This Junior Leader...

1. Leads an effective pre-activity warm-up including a cardiovascular phase, a stretching or flexibility phase and includes muscular strength and endurance exercises (push-ups and sit-ups) in an assertive and confident manner.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

2. Displays a high level of energy and enthusiasm.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

3. Interacts with other students and displays empathy and a willingness to help others.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

4. Communicates with the teacher before activity and anticipates class needs.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

5. Dresses appropriately for class every day in a clean leader's uniform.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

6. Demonstrates leadership qualities such as being organized, taking charge when possible, displaying initiative and assertiveness.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

7. Demonstrates competency in physical skills and fundamentals in a variety of activities.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

8. Demonstrates through written tests and participation a knowledge of game rules, basic fitness concepts and the fitness testing program.

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

9. Demonstrates exemplary attendance-tardy record. (few absences/no tardies)

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

10. Displays a willingness to help others, give positive reinforcement and have a good attitude at all times. (A need to be poised and under control at all times!)

1	2	3	4	5	6	7	8	9	10
LOW									HIGH

TOTAL POINTS _____

COMMENTS SHOULD BE COMPLETED ON BACK

SENIOR LEADERS EVAL

LEADER'S NAME _____ TEACHER _____

PERIOD _____ QUARTER 1 2 3 4

FINAL GRADE - TALLY OF BOTH SECTIONS _____

LEADERSHIP ABILITY 50%

Rating (the higher the number the higher the grade)

0	1	2	3	4	Equipment / Field / Court set-up
0	1	2	3	4	Assertiveness
0	1	2	3	4	Initiative
0	1	2	3	4	Enthusiasm
0	1	2	3	4	Motivation
0	1	2	3	4	Interaction with students
0	1	2	3	4	Interaction with teacher
0	1	2	3	4	Appropriate dress
0	1	2	3	4	Safety awareness
0	1	2	3	4	Other assigned duties
0	4	6	8	10	Role model / Leadership qualities

Total _____

ORGANIZATION AND LEADERSHIP SKILLS

Rating

0	4	6	8	10	Attendance / Tardies
0	4	6	8	10	Officiating (or other assigned duty)
0	4	6	8	10	Teaching (individuals/ small groups)
0	4	6	8	10	Daily warm-up
0	4	6	8	10	Supporting Program - work ethic

PICKLEBALL

Benefits of Activity:

Pickleball is a racket sport similar to badminton, tennis, and racquetball using a paddle and a whiffle ball. It is played on a badminton court. Pickleball helps improve eye and hand coordination, communication, team work and strategic planning skills.

Rules Serve: Player must keep one foot behind the backline when serving. The serve must be underhand. The paddle must pass below the waist. The server must hit the serve in the air. He/she is not allowed to bounce it, then hit it. The service must be made diagonally cross-court and must clear the non-volley zone. Only one serve is allowed, except if the ball touches the net and lands in the proper service court. Then the serve may be taken over. At the start of each new game, the 1st serving team is allowed only one fault before giving up the ball to the opponents. Thereafter, both members of each team will serve and fault before the ball is turned over to the opposing team. When the receiving team wins the serve, the player in the right hand court will always serve first.

Volley: To volley a ball means to hit it in the air without first letting it bounce. All volleying must be done with player's feet behind the non-volley zone line. It is a fault if the player steps over the line on his volley follow through.

Double Bounce Rule: Each team must play their first shot off the bounce. That is, the receiving team must let the serve bounce before playing it, and the serving team then has to let the return bounce. After the two bounces have occurred, the ball can be either volleyed or played off the bounce.

Fault:

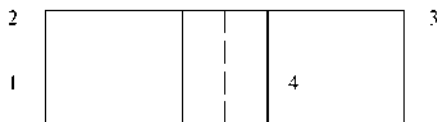
- Hitting the ball out of bounds
- Not clearing the net
- Stepping into the non-volley zone and volleying the ball
- Volleying the ball before it has bounced once on each side of the net as outlined above.
- **Scoring:** A team shall score a point only when serving. A player who is serving shall continue to do so until a fault is made by his team. The game is played to 11 points; however, a team must win by 2 points.

Position and rotation of Doubles Players:

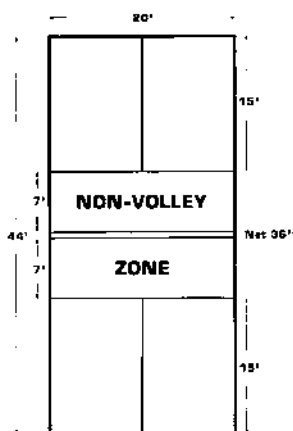
Position of players for doubles at the start of a game:

Serving

Receiving



OFFICIAL PICKLE-BALL COURT



Player in right-hand court (1) serves diagonally cross court to receiver (3). The ball must clear non-volley zone and land in the right hand serving court. The receiver (3) must let the serve bounce before returning it. The serving team must also let the return bounce before playing it. If a fault is made by the receiving team, a point is scored by the serving team. When the serving team wins a point, its players will switch courts, and the same player will continue to serve. When the serving team makes its first fault, plays will stay in the same court, and the second partner will then serve. When they make their second fault, they will stay in the same courts and turn the ball over to the other team. Players switch courts only after scoring.

Singles Plays:

All rules apply with following exception:

- When serving in singles, each player serves from the right side if his/her score is even; and from the left-hand court when his/her score is odd numbered.

General Tips / Strategies:

- Both members of the serving team should be near the base line at the time of the serve so that neither will forget to let the first returned ball bounce before they return it. (Double Bounce Rule)
- After the ball is in play, lobbing it over the opponent's head can be an effective strategy.
- If a player sees that a ball is going to land in the non-volley zone, and he is going to let it bounce, he may move into one zone before it bounces, but must let it bounce before returning it.

Terminology:

Double Bounce Rule	The serve must bounce and the return must bounce before the ball can be volleyed.
Drop shot	A shot landing close to the net usually inside the non-volley zone.
Game	Played up to 11 points - win by 2.
Lob	Hitting the ball high over the opponent's head
Non-volley zone	An area where the ball can not be hit in the air.
Point	Can only be scored when serving
Smash	An aggressive over-head shot used to put away a point.

SAFETY:

- Players must be careful not to strike one another with their paddles.
- Do not walk behind or through a court while a point is being played.
- If a ball comes on the court, stop, play, and replay the point.

Study Questions:

What is the proper serve technique?

Explain the Double Bounce Rule.

What is the correct position for doubles; serving team, and receiving team?

What is the correct service rotation for doubles?

RAZZLE DAZZLE (NAVY BALL)

ACTIVITY DESCRIPTION:

Razzle Dazzle football is a variation of touch or flag football which is fast moving with a minimum of time between plays and which involves all of the players in the fun part of the game - passing, catching, and running with the ball. It is a wide open game with more scoring, action., and running than in a typical flag football game.

BENEFITS:

Cardiovascular fitness can be improved.

Gross motor skills will be improved; running, catching and throwing.

Teamwork/cooperation skills are utilized.

TERMINOLOGY:

See Football terminology.

THE GAME:

The purpose of Razzle Dazzle football is the same as regular flag or touch football, that being to run or pass the ball over the opponent's goal line. The primary difference is that in Razzle Dazzle you may throw a forward pass at any time, from any place on the field, and any number of times during each play, including punt or kickoff returns. Another basic difference is that in Razzle Dazzle there is only one basic offensive strategy or "play". That strategy is to spread out and make a series of short passes to teammates while advancing the ball down the field. There are no huddles to determine strategy or call offensive plays. For each down, as soon as both teams are on their respective sides of the ball or line of scrimmage, an offensive team player snaps the ball off the ground backwards to a teammate and a new play has begun.

The offensive team is stopped by the defense in one of three ways:

1. If the defensive player pulls the flag (if flags are used) or touches the offensive player while that player has the ball, the play ends at that spot.
2. If the offensive team drops a forward pass the play ends, and the ball is moved back to the point from which the ball was thrown.
3. If one of the players runs out of bounds while in possession of the ball.

RULES:

1. Passes may be thrown forward or backwards, and players may run with the ball or pass again.
2. The offensive team has four downs to score.
3. On an incomplete forward pass, the ball returns to the point from which the ball was thrown. An incomplete backward pass remains live and can be picked up and play continues.
4. You must have a center who snaps the ball to start each play.
5. On the fourth down, the offensive team may elect to punt, the defensive team cannot rush the kicker in an attempt to block the punt, and the offensive team may not run down field until the ball has been kicked.
6. No huddles are allowed.
7. Blocking is discouraged, but not illegal.
8. Flip of a coin determines who kicks off. The kick-off may be from placement or by punting and the kick-off is made from approximately half-way between the goal line of the kicking team and mid-field. The kicking team may not advance until the kick has been made.
9. The kick-off receiving team may advance the ball by running or passing.
10. Passes may be thrown either forward or backward. The players receiving a forward or lateral pass may advance the ball by running or by passing the ball again either forward or backward to a teammate. An incomplete forward pass ends the play, and the ball returns to the point from which the ball was thrown for the next play. An incomplete backward pass remains a live ball and may be picked up by either team and advanced.

11. A team in possession of the ball has four downs (plays) to score after the kick-off return. (For beginning football players, an accepted variation would be to allow four downs to cross mid-field and then four more downs to score). If the team in possession does not score, the team which was on defense will then take possession.
12. To start each down, each team must be on their own respective side of the field with the ball being the dividing point between teams or line of scrimmage.
13. The ball is put in play for each down by snapping or centering the ball backwards. As on the kick-off return, the offensive team may again pass the ball forward or backward from any place on the field any number of times.
14. Every player is eligible to receive a pass.
15. Any number of players can be on each team, but the most desirable number is six or seven.
16. On the fourth down or the last down prior to losing possession of the ball to the other team, the offensive team may elect to punt. If the offensive team so chooses, they must inform the defensive team of their intentions. The defensive team may not rush the kicker in an attempt to block the kick, and the punting team may not run down field until the ball has been kicked. This makes the punt similar to a kick-off.
17. It is illegal for a player to hold his/her own flag to trip or push another player. On a penalty, if the offended team chooses, they may step off a ten yard penalty in their favor from the spot of the penalty and replay the play.
18. Six points are scored for each touchdown. After each touchdown, the scoring team has one play to score from five yards out for one extra point.
19. Any size field may be used and should vary in size depending on the number of players on each team. For six players on each team, the field should be approximately 50 yards by 30 yards.

STUDY QUESTIONS:

1. You may pass from any spot on the field any number of times.
2. The play ends if the offensive team drops a forward or backward pass.
3. Rushing a punt is illegal.
4. The best strategy is to spread out and throw short passes.
5. Every player is eligible to receive a pass.

SOCCER

BENEFITS:

The game of soccer develops all aspects of physical fitness including cardiovascular endurance, muscular endurance and strength, flexibility, body composition and agility. It is a game that can be played by all people of all ages, on any flat surface.

TERMINOLOGY:

Free Kick: When a player is kicking a direct or indirect kick, opposing players must remain at least ten yards from the ball until it is in play. Direct From which a goal can be scored directly against the offending team. Indirect From which a goal cannot be scored until it has been touched by another player.

Penalty Kick: A penalty kick is a direct free kick awarded to one team when a player on the opposing team commits a major foul within the penalty area.

- The opposing goalkeeper must stand on his own goal line between the goal posts and not move his feet until the ball is kicked.
- The player taking the kick must kick the ball forward and may not play the ball a second time.

- Throw-In:** The throw-in is the means of putting the ball in play after it has gone over the side line. The throw-in is to be taken from the spot where the ball crossed the sideline.
- The thrower is to use both hands in delivering the ball from a position behind and over the head.
 - The ball may be thrown in any direction to any teammate. Goalie May only use his hands, while in penalty area, outside of penalty area he has some playing rights as other players. Goal Kick When a member of the attacking team causes the ball to go over the goal line, the ball is to be put back into play by means of a goal kick. The ball is placed down within that half of the goal area nearest to where the ball crossed the goal line.
 - The players of the opposing team must remain outside the penalty area as the goal kick is made.
- Corner Kick:** When a member of the defending team causes the ball to go over the goal line, the ball is to be put back into play by means of a corner kick.
- Players of the team opposing that of the player taking the kick are not to be within 10 yards of the ball.
- The kicker is not to play the ball a second time until it has been touched or played by another player.
- Kick-Off :** At the time of the kick-off, every player is to be within his own half of the field and every player on the opposing team must remain a distance of at least 10 yards from the ball.
- The ball is not considered to be in play until the ball has traveled the distance of its own circumference.
- The kicker may not touch the ball a second time until it has been played or touched by another player.
- Off-Sides:** When a ball is passed to a player and he is on his own half of the field, he must have at least 1 opposing player nearer to the goal than he is.
- Offsides is judged at the moment one player passes the ball to another and not at the time the second player receives the ball.
- After an offsides occurs, an indirect free kick is awarded to the opposing team.

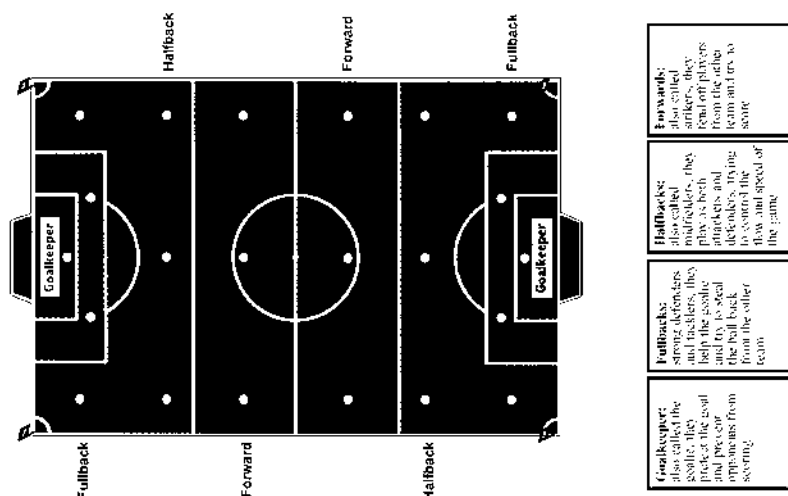


FOULS AND MISCONDUCT:

A foul is a violation of the rules, when deliberate, is penalized by a direct free kick, indirect free kick, or a penalty kick.

Fouls include kicking, tripping, charging, striking, holding, pushing, striking, or propelling the ball with arms or hands.

The Goal Keeper cannot carry the ball more than 4 steps without bouncing it on the ground.



RULES:

Soccer is a game that is played with 10 field players and 1 goalie. The ball is primarily played with the feet, however, it may also be struck with the head or body excluding the arms and hands. A goal is scored when the ball crosses over the goal line into the goal.

- For specific rules, see terminology.

SAFETY PRECAUTIONS:

Proper and effective stretching.

Students should be careful heading ball with opponents near-by.

Students should always keep one foot on ground when kicking the ball.

Students should know rules of soccer pertaining to play and equipment.

QUESTIONS:

1. What is the difference between a direct and indirect kick?
2. Explain when a corner kick is used in soccer?
3. List 3 specific rules a player must follow when attempting a throw-in.
4. What must an offensive team do to be called for offsides?
5. What type of special privileges does a goalie have inside and outside of the penalty area?

SOFTBALL

BENEFITS:

Recreational, lifelong activity

TERMINOLOGY:

Arc	The path that the ball must take from the pitcher's hand to the batter. The arc must be 6'-8'.
Cut-off	A throw made from an outfielder to a player positioned between the intended base and the outfielder.
Double Play	A play in which the defense is able to get two outs with one at bat of the opposing team.
Force-out	An out that is achieved by tagging the base that a base-runner is advancing to.
Home Team	The team that bats at the bottom of each inning and last in the game.
Visiting Team	The team that bats at the top of each inning.
Inning	A complete inning is composed of 6 outs - three by the visiting team and three by the home team, respectively.
Infield Fly Rule	If the batter hits a fly ball to the infield with runners at least on 1st and 2nd and less than 2 outs, the batter is automatically out.
Out Of Play	A ball that is thrown beyond the foul line. Base runners are awarded an extra base.
Fielder's Choice	When the batter reaches base due to the defense choosing to get an out, other than the batter. This is not counted as a hit for the batter.
Runner Interference	If the base runner is hit by a batted ball or runs into a fielder attempting to field the ball, he is automatically out.
Tag-Up	On a fly ball, base runners must wait on the base until the ball is caught if they want to advance to the next base.

RULES:

1. No bunting.
2. Each batter is allowed two swings. A foul ball on the second pitch is an out.
3. Throwing the bat is an automatic out.
4. No lead-offs or steals.
5. Runner interference is an automatic out.
6. A ball thrown out of play results in an extra base.
7. The runner must avoid contact with the fielder at the bases.
8. The pitcher must use a 6 - 8 foot arc on every pitch.
9. For safety reasons, sliding is not allowed.

SAFETY PRECAUTIONS:

1. Offensive team players should not stand near the batter.
2. On a fly ball between the infield and outfield, the outfielder should call off the infielder in order to catch the ball.
3. On a fly ball between outfielders, the center fielder should call off the other outfielders to make the play.

SPEEDBALL

BENEFITS:

The principle of speedball is the idea of combining known basketball techniques with more rugged soccer skills. The many methods and possibilities of scoring creates enthusiasm and physical benefits. Speedball obtains all the values of any pleasurable big muscle activity which involves the coordination and cooperation of groups of players acting together.

RULES:

Playing the ball:

1. Any ball above the head, from any cause, may be played with the hands.
2. Any ball below waist, from any cause, must be played with legs or feet.
3. Any ball higher than waist cannot be kicked.

Ball out of bounds:

1. Ball over side line goes to team who did not cause it to leave the field.
2. Running with ball (except 3 steps to kick the ball) ball goes to opponent where traveling occurred.
3. Ball over end line by defense; ball is awarded to opponent on the side line.
4. Ball over end line by offense, or running with ball in end zone; goes to defense behind the end line.

STARTING THE GAME:

The ball is put into play by a free kick at the center of the field, all players must be behind the ball.

Defensive players must remain behind the 10 yard restraining line until the ball is kicked.

TERMINOLOGY:

Scoring

Field Goal	Ground ball kicked under the cross bar and between the uprights. Counts 3 points.
Drop kick	Over the cross bar from outside the penalty area; counts 1 point.
Touchdown	Ball passed from field of play to a teammate back of goal line; counts 2 points.
Penalty Kick	An attempt to score a goal by offended player from the penalty kick mark. Goal keeper may only attempt to block the kick. Counts 1 point if successful.
End goal	Ground ball that receives its impetus (kicked or legally bodied) from any player, offensive or defensive, in the end zone and passes over the end line but not between the goal posts. Counts 1 point.
Tie ball:	Ball is held by 2 opposing players simultaneously, or where officials are in doubt about which side last played the ball out of bounds.
Personal foul	Consists of holding, striking, kicking, tripping, pushing, and charging.
Technical foul	Fouls involving playing a ball illegally. Penalty is a free kick by opponents. Ball may be kicked in any direction or distance.
Defensive Play	A player may legally guard an opponent who has the ball. He must play to secure the ball, and in no way hold an opponent.
Traveling	A player who is standing still when catching the ball from a kick or a pass may take 2 steps in any direction from the point at which he/she caught the ball, but must get rid of the ball before a second step is completed. If running, he/she is allowed 2 steps, and if full speed the referee decides whether the individual stopped as soon as possible.
Goal tender	There is no distinction between the goal tender and the other players as regards to privilege and restrictions in playing the ball.
Dribbling	A player may dribble the ball with his feet at will.
Overhead dribble	A player may throw the ball in any direction and run and catch it before it hits the ground. He can not score a touchdown by this method.

SAFETY PRECAUTIONS:

1. The greatest danger in speedball is over exertion due to poor physical condition.
2. Adequate warm-up and supervision do much to minimize the hazard of speedball.
3. Improper use of basic skills such as handling the ball may cause such injuries as jammed fingers or broken nails.

STUDY QUESTIONS:

1. Name and explain the two ways an offensive team can advance the ball.
2. Name the five methods of scoring and point value for each.
3. Draw, label, and diagram a speedball field including the following endline, goalline, penalty kick line, middle line, restraining line.
4. Name and explain the similarities speedball has with other sports.
5. What type of fitness benefits would one achieve during a speedball game?

STEP AEROBICS

BENEFITS:

1. Step aerobics will improve cardiovascular endurance.
2. Step aerobic exercise program uses little space and can be done indoors.
3. Using music with step patterns helps to develop coordination skills as well as rhythm.
4. Many different muscle groups are involved with the variety of step patterns.

TERMINOLOGY:

1. Common steps used in routines:

STEP PATTERNS:

basic	toe tap	1 step
v step	heel step	tap up tap down
a step	cross-over	charleston
open step turn	t-step	single knee lift
straddle step	corner step	kick ball change
traveling single knee lift	jump step down	lunge step
rocking horse front	jump down step up	side lunges
rocking horse 1 step	side leg lifts	ski jump
repeaters	corner lunges	leg curls
back step kick	1/2 step lunge	

OFF-STEP OPTIONS:

grape vine	leg curls	twists
jumping jack	cha cha	double side touches
pony	knee lifts	scoops
triplets	squats	step together
mamba	hop cross hop side	pivot
lunges		

2. Linear Building Technique: A sequence of movements that do not repeat in a pattern or cycle. You may use a series of moves or you may choose a single movement and vary the approach, accent, lead, rhythm, levers or planes.

3. Pyramid Building Technique:

A sequence of movements or step patterns that begins with large numbers of repetitions and gradually reduces the number of repetitions until the end combination is achieved.

4. Add-On Building Technique: A sequence of movements or patterns that are organized in the order that they will be performed in. After a single movement is introduced, each subsequent movement is added on and the new cycle repeated.

RULES AND SAFETY:

1. Review of Alignment and Technique:

- keep back straight, head and chest up, shoulders back, abs and buttocks tight
- try to keep shoulders aligned over hips, lean forward with entire body, don't bend from the hips or round the shoulder
- step lightly making sure the entire foot lands on the platform with the heel bearing your weight
- don't BOUNCE
- keep the knees soft and aligned over feet
- stay close to the platform and glance at the step every now and then

2. Putting it all together.

- always begin with the base moves, master the legs/feet first
- add arm patterns
- continue breakdown and add variations to base moves, let your students know they can always stay with the level they feel most comfortable doing
- finally add rhythm changes and style modifications

WELCOME TO YOUR SWIMMING UNIT



Here are some things you should know:

SWIMMING SUITS & TOWELS

- The school furnishes swimming suits and towels. You may bring your own suit as long as it is modest and you keep it clean and sanitary. The one towel we provide you daily will do a better job if you wipe the excess water off your body with your hands before trying to dry off. You may bring a towel from home if you wish.
- School swimming suits **must** be placed in the mesh bag in the locker room after it has been used.
- Towels must be put in the towel bag in the locker room as you leave the area.

SECURITY & USE OF LOCKS

- You are responsible for bringing a lock each day in order to secure your belongings while you swim.
- The lock **must** be removed each day as we do not have enough lockers to be able to assign you one for the unit.
- Use an available dressing locker to secure your books, clothing and valuables.

SUGGESTIONS

- You may bring goggles to wear to help with visibility and to reduce eye irritation.
- Contact lenses should be removed before you swim, even if you wear goggles.
- Please put your name on the swim cap and goggles.

POOL RULES

1. Swim caps must be worn by persons with long hair. This includes hair below the eyebrows, over the ear lobes or extending below a shirt collar.
2. Refrain from horseplay such as pushing or shoving or running on the pool deck.
3. Take a thorough shower before entering the pool.
4. Do **not** chew gum in the pool area. Dispose properly in a garbage can before entering the area.
5. Remove all jewelry before entering the pool and put in your shoe so that you don't leave it in a locker by mistake.

EXPECTATIONS

1. **100%** participation is expected of students enrolled in an aquatics activity. It is a course requirement that students **must be in the water 90%** of the time. (Days out of the water **must** be made up...unless the days out are because of a written note from a **doctor**).

COURSE REQUIREMENT

1. If, after the aquatics unit is complete, a student has make-up swims, he/she has four weeks from the last day of the unit to make them up. **If they are not made up, the grade will be an "I" (Incomplete), The "I" turns into a semester grade of F after four weeks.**

SWIM MAKE-UPS

1. In order to make-up a swim class the student should get a pass from their physical education teacher and present it to the teacher on deck before he/she is to swim. "O" hour, study hall, lunch/homeroom may be used for make-up. The teacher in charge will assign 30 minutes of swimming that fits in with the day's activity. Make sure to obtain a "make-up" card from the aquatics teacher before leaving.

MEDICAL EXCUSES

1. If a student is in class but not swimming, he/she **must** have a note from home or a doctor. If a note exempts the student from swimming, he/she **must** come prepared to exercise and run (gym shoes and uniform). If the note exempts the student from all activity, he/she **must** read and summarize an article that pertains to physical education. **(The exercise and run do not count as a day in the water.)**

FRESHMEN SWIMMING UNIT

Freshmen year you will learn the basic swimming strokes. They include freestyle, backstroke, elementary backstroke and the sidestroke. Eventually you will be able to participate in weekly timed swims that will help enhance aerobic fitness. The skills that are learned in this unit will provide the confidence needed to enjoy water activities safely.

BENEFITS:

1. Builds cardiovascular endurance;
2. Swim more efficiently and save energy;
3. Lessens stress on joints and muscles;
4. Improves range of motion in joints;

TERMINOLOGY:

Streamline position:	Body position used in most swimming strokes that causes the least amount of resistance. Head, hips and legs are all in line.
Drumroll kick:	Describes kick for freestyle and backstroke, maximum turnover of legs and feet
Rotary breathing:	Breathing to the side while swimming with face down in the water
Water kick:	Kick used in elementary backstroke
Scissors kick:	Kick used in sidestroke
Reach:	Full extension of arm at start of pull
Finish:	Full extension of arm at end of pull
Rotation:	Turning on the bodies own axis.

RULES:

1. No shoes on deck;
2. No food, drink, or gum in pool area;
3. No roughhousing;
4. No diving in shallow end;
5. No pushing or throwing people into water;
6. One person is permitted on the diving board at one time;
7. No jewelry worn in the pool;
8. All persons with hair below the ears must wear a cap.

STUDY QUESTIONS:

1. Describe the difference between the scissors kick and the whip kick.
2. Describe streamline position.
3. Describe proper rotary breathing.

SOPHOMORE SWIMMING UNIT

Sophomore swimming begins with a review of the basic swimming strokes learned freshmen year. The majority of the unit will consist of focusing on the leisure activity of snorkeling. Students will become proficient in the handling of equipment as well as learning basic snorkeling skills. Daily warm-ups and timed swims will help maintain cardiovascular fitness, a major benefit of swimming.

BENEFITS:

1. Builds cardiovascular endurance
2. Swim more efficiently and save energy
3. Learn skills to use recreationally
4. Build self-esteem exploring new activity
5. Introduction to snorkeling

TERMINOLOGY:

Porpoise dive:	Method used to submerge body while snorkeling
Stride or step in entry:	Entry used while standing on pool deck facing water and stepping into pool while standing erect.
Roll in entry:	Entry used while in squat position facing the water and somersaulting into the water.
Sit in entry:	Entry used while in squat position while facing away from water and sitting back into water.

RULES:

See Freshmen unit for general pool rules.

1. Treat all equipment with care
2. No walking on deck with fins
3. No interfering with others equipment
4. Rinse all snorkels before and after usage
5. Return all equipment to proper place

JUNIOR - SENIOR SWIMMING UNIT

Junior and Senior year you will learn water polo skills. They include dribbling, shooting and passing. You will also come to understand basic polo strategies such as pressure defense, teamwork, and communication. The basic swimming strokes will once again be reviewed to help enhance cardiovascular fitness.

BENEFITS:

1. Builds cardiovascular endurance
2. Learn to work as a team
3. Helps develop strong legs
4. Learn a lifelong activity

TERMINOLOGY:

Dribbling:	Moving through water in possession of the ball.
Egg beater:	Kick used to elevate body into passing and shooting position alternating elementary backstroke kick.
Free throw:	Occurs after an infraction, 3 seconds of undefended time to put ball into play
Ordinary foul:	Making unnecessary contact while playing the ball
Major foul:	To endanger another person in any way
Two meter line:	No offensive player may enter this line without possession of the ball
Seven meters:	Any shot taken beyond this line is worth two points
Dry pass:	Pass from one player to another, from hand to hand without touching the water
Wet pass:	Pass from one player to another player in motion where ball leads receiver Submerging: Bringing the ball completely under water

TEAM HANDBALL

BENEFITS:

1. Team Handball is a vigorous cardiovascular team game developed by Germany & Denmark around 1900. It is filled with movement and encompasses many of the familiar skills of soccer, basketball, and speedball. The objective of the game is to score a goal (one point) by moving the ball past the opponent's goalie.
2. Participation in Team Handball allows students to participate in an Olympic sport that they probably haven't played before.

SAFETY:

- A. Team Handball is a fast, vigorous game. Students should be taught to play the ball and not the man. Striking, grasping, or tackling an opponent are not allowed.
- B. Players should be made aware of the danger of blocking an opponent's shot behind when the arm is cocked and ready to throw. The players should be instructed to block the ball and not obstruct the arm.
- C. Defense is to be played like a basketball man-to-man or zone defense without intentional physical contact.
- D. When played outside, be careful when playing on wet grounds in that players may not be able to stop from sliding into one another when going for the ball.
- E. Team Handball goalies should wear protective padding around one arm to deflect shots on goal.

TEAM HANDBALL OBJECTIVES:

A. As a result of Team Handball, the student should be able to:

1. Demonstrate the basic fundamentals of the activity including: throwing, stationary catching and catching on the run, and dribbling under control.
2. Demonstrate the ability to play an integral part in a team activity by either playing an offensive position, a defensive position, or goalie.
3. Demonstrate through participation and/or written testing the basic rules of the game including: boundaries, scoring, and team strategies.

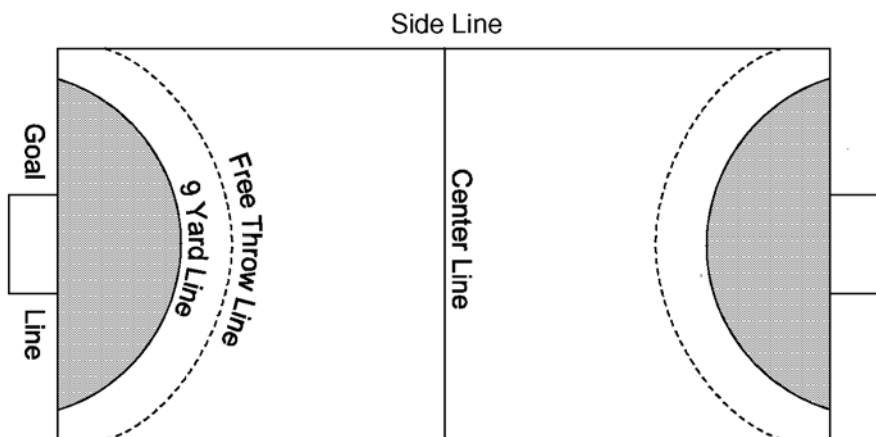
Rules:

Object of the Game: The basic objective of Team Handball is to score a goal using passing and good teamwork. A successful scoring attempt results in the award of a single point.

Strategies: Play is initiated by a throw-on at mid court which is repeated after each goal. Players may dribble the ball, although the game is not as dribble-oriented as basketball. They are allowed three steps before and after they dribble. Contact is allowed by the defense to stop offensive maneuvers, but excessive roughness can result in two-minute penalties similar to hockey. The offense usually runs set plays, but freelance play is encouraged, particularly in quick or fast-break situations. The pace of the game runs the gamut from “Slow-down and Set-up” to “Run and Gun.”

The Court: A Team Handball court is slightly larger than a basketball court. Regulation size is 20 X 40 meters, but the game can be easily adapted to smaller areas. All court lines are referred to by their measurement in meters. The most significant line on the court is the six-meter line, or goal area line. The area enclosed by the six-meter line is called the goal area, or the circle. Only the goalie is allowed inside the goal area. The only exception -when another player is allowed in the goal area is when they take-off from outside the goal area and shoot the ball toward the goal before landing. To avoid interference with other players, the player must then exit the goal area as quickly as possible. The nine-meter line, or the free throw line, is used for minor penalties. The seven-meter line, or penalty line, is used for major penalties. The goal line, even with the goal at each end of the court, serves as out of bounds.

The Goal Area: Remember, only the goalie is allowed inside the goal area. If an offensive player is in the circle or on the line, the ball is given to the opponent. A goal does not count unless the offensive player releases the ball before landing in the goal area. If the defense gains an advantage by being in the circle, a penalty throw is awarded. A ball inside the goal area belongs to the goalie. A ball in the air, however, is not considered to be



Playing the Ball: A player is allowed to run three steps with the ball, or hold it for three seconds. A player is not allowed to play the ball with their legs below the knee. There is no limit on dribbling the ball. A double dribble, however, results in a free throw for the opponent.

A player may not pass the ball in the air with the intention of catching it themselves - this is an air dribble. Nor are players allowed to dive on the ground to play the ball.

Defending the Opponent: Defensive players are allowed to use their body to obstruct an opponent either with or without the ball. Using the arms or legs to push, hold, trip or hit, however, is a violation.

Offensive players are not allowed to charge into a defensive player, or a free throw is awarded.

STUDY QUESTIONS:

1. The game begins with a jump ball?
2. A player may take up to three steps before dribbling or passing.
3. All players may be on either side of the court any time.
4. The goalie can't go beyond the arc.
5. A penalty shot will be awarded for any foul while a player is attempting to shoot on goal.

TENNIS

BENEFITS:

Tennis improves eye and hand coordination, communication, teamwork skills and builds strategic skills.

TERMINOLOGY:

Ace	A serve which gets past the receiver without them touching it with their racket.
Baseline	The end boundary lines of the court.
Deuce	An even score of 40 - 40.
Double Fault	Missing both 1st and 2nd serves.
Fault	A service failure.
Ground Stroke	A stroke that is hit off of a bounce, usually hit from back behind or near the baseline.
Let	Called when a served ball hits the net and falls in the proper service court. (The point is replayed). Also happens anytime there is interference during a point.
Lob	An upward stroke that sends the ball high and deep into the back court.
Love	No score or a score of zero.
Match	2 out of 3 sets.
Overhead Smash	A downward stroke, usually a volley, taken when the ball is high above the head.
Rally	A prolonged exchange of strokes.
Set	The first player to win 6 games, but must win by two. At 6-6 a tie breaker is played.
Topspin	When the racket brushes across the top of the ball causing a spin which makes the ball bounce higher.
Volley	A stroke used to return a ball before it has bounced. It usually occurs when the player is close to the net, especially in doubles.

RULES:

Serve:

1. The server must stand behind the baseline and between the center mark and the sideline.
2. The server must hit the serve in the air before it bounces.
3. The serve is to be hit cross-court into the correct service box. The alleys are not included.
4. Server gets two chances to get their serve in. If the server misses the first serve it is fault one and the server gets a second serve. If the server misses the second serve it is called a double fault and a point is awarded to the receiving team.
5. The server cannot step on or over the baseline before contact is made or it is called a foot fault and is considered a fault.

The serving order for doubles is the following: Team 1 has A and B as partners and Team 2 has C and D as partners.

A or B serve the first game.

C or D serve the second game.

The player from team 1 who didn't serve, serves the third game.

The player from team 2 who didn't serve, serves the fourth game.

The teams must keep the same service order for each set.

Receiving for Doubles

Partners choose which side they would like to return from, the left side or the right side, and return from that side the entire set.

When the receiving partner is returning serve, the other partner may not try to hit the ball.

Changing Sides:

1. The server always begins the game on the right side of the court. (Deuce side)
2. During a game, the server alternates serving from the right side and the left side.
3. After the first game of a match, teams switch ends on the court. Thereafter the teams switch after every two games.
4. Switch ends of the court on odd numbered games (1,3,5,etc.).

Scoring:

1. A tennis match is the best two out of three sets.
2. A set is the first player up to six games win by two.
3. A game is the first player to win four points win by two.

A tennis game starts out with a score of zero to zero.

0 points = Love

1 point = 15

2 points = 30

3 points = 40

4 points = game (unless the score is deuce)

At deuce the player has to win 2 points in a row to win the game.

**Please ad-in between serving order and changing sides.



Miscellaneous Rules and Courtesies:

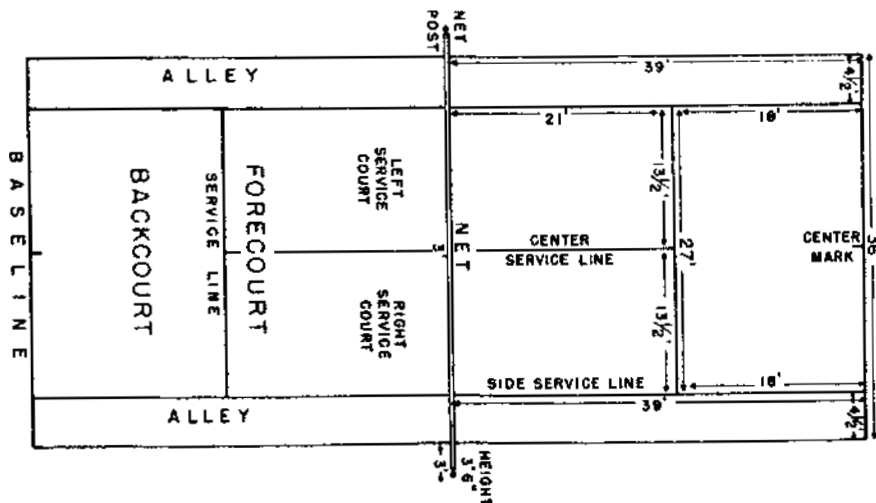
1. The server calls out the score before every point, saying his/her score first.
2. The receiver has to let the serve bounce before he/she tries to hit it.
3. If the ball lands on the line it is considered in-bounds.
4. A player may not touch the net with his/her racket or touch the net with any part of the body during a point.
5. A player may not reach over the net to hit the ball. However, a player may follow through over the net as long as no contact is made with the net.
6. A ball must bounce out of bounds to be considered out.
7. Players are allowed one hit to get the ball over the net and they have to hit the ball either on one bounce or in the air.
8. If during a point the ball hits the net and goes over in the court, it is considered a good shot and the point continues. (Except on a serve).
9. Never walk onto a court where a point is being played. Wait until the point is over.
10. Retrieve balls nicely to opponent's and neighboring players.
11. If a ball rolls on the court, or another player walks on the court during a point, call a let. (Replay the point).

SAFETY:

1. Never walk on a court when a point is being played.
2. Always pick-up balls lying around on the court before play begins.
3. Do not hit the ball until teacher gives directions to do so.
4. Never hit a ball if someone walks on the court. Stop play.

STUDY QUESTIONS:

1. A set consists of at least how many games?
2. When a ball hits the top of the net on a serve and lands in the proper service court, it is called?
3. What is it called when a player hits the ball before it bounces?
4. Explain how to score a game of tennis.
5. What is it called when a player misses both serves?



TUMBLING

BENEFITS:

The student will improve his/her muscular strength, cardiovascular and muscular endurance, balance, coordination, and flexibility through various exercises performed while tumbling. Students will learn basic routine structure and will have a better understanding that tumbling is the basis for all gymnastics.

TERMINOLOGY:

1. Forward and Backward Rolls
2. Handstand and Headstand
3. Dive Roll
4. Cartwheel
5. Round-Off
6. Back Extension Roll
7. Back Walkover
8. Routine
9. Connecting Skills
10. Flexibility

SAFETY:

1. Do not go on any equipment without the instructor present and with instructor approval.
2. Do not move any mats or re-arrange any equipment in any way.
3. No jewelry of any kind (rings, chains, bracelets or watches).
4. Once inside the gym, take your shoes off and place them along the East wall of the gym. Socks are mandatory for this activity.
5. No gum chewing.
6. Absolutely no running or horseplay is allowed. A zero will be given if this rule is not observed.
7. Do not lean on any cables or equipment.
8. Report any damaged equipment or any mats that appear to be out of place before you begin any activity.
9. Do not attempt any skills that have not been given instructor approval.
10. Do not attempt to spot anyone without being properly trained by the instructor.

ULTIMATE FRISBEE

BENEFITS:

Ultimate Frisbee is a recreational means of improving cardiovascular fitness. The student will learn basic Frisbee throwing and catching skills along with important aspects of team work.

TERMINOLOGY:

- | | |
|------------|---|
| Goal line | The line which the offensive team must cross to score a goal. Both feet must be completely across the line. |
| End Zone | The area from the goal line to the end line where goals are scored. This area is 30 yards deep. |
| Goal | A score in Ultimate Frisbee. Each goal is worth one point. |
| Pivot Foot | The foot that must be planted while a player has the Frisbee. Changing the pivot foot is a violation. |
| Throw off | A throw off is used at the beginning of each half and after a goal is scored. Both teams must be on their respective goal lines and must not move until the disc is thrown. |

RULES & SAFETY:

1. Play begins with a throw-off.
2. Once the Frisbee is received it is advanced by throwing forward, to the side or backwards.
3. The player in possession of the disc may not run. A pivot foot must be planted, if the pivot foot is moved a foul is called.
4. The defensive team gains possession when the offensive team's pass is incomplete, intercepted, knocked down, or goes out of bounds.
5. The Frisbee cannot be handed from player to player.
6. Only one player can guard the person in possession of the Frisbee.
7. The Frisbee cannot be pulled from the grasp of an opposing player or knocked from his/her hand.
8. A player may catch his/her own pass only if the disc has been touched first by another player.
9. Physical contact during the throw is a foul against the defender.
10. Players must play the disc, not the opponent.
11. A player may not hold the Frisbee for more than 5 seconds.

VOLLEYBALL

Volleyball is a fun game which can be played and enjoyed for a lifetime at a variety of levels, from recreational to competitive. Played either inside or outdoors, the game has many variations; the traditional six person team, co-ed, fours, triples and doubles (used in beach volleyball). The game improves quickness, lateral movement (to strengthen knees), and jumping ability.

TERMINOLOGY:

1. **Block** An overhead defensive move used to prevent a spike from penetrating the net. Both arms are overhead, with forearms and hands used to deflect the ball back into the spiker's court.
2. **Bump** Also known as a forearm pass, it is a single, simultaneous contact off of the forearms. It is used to receive serve, dig spiked balls, and for ball contact below the waist.
3. **Set** A two handed overhead contact with open hands used to position the ball for the spiker. The ball cannot come to rest on the hands and a slapping motion cannot be used.
4. **Serve** A one handed contact in which the ball must go over the net, inbound used to begin play. A serve which touches the net and goes over is legal and in play. An underhand or overhand motion may be used. Both feet must be completely behind the baseline. You may score points when you serve or when you receive serve.
5. **Side-Out** The ball is awarded to the defensive team when the serving team violates a rule. One point is scored on a side-out.
6. **Spike** A forceful one-handed attack, hit above the level of the net, used to terminate play. The ball must be contacted on your side of the net, but follow through may occur over the net as long as no contact is made with the net. The ball must be cleanly hit, not slapped or thrown.
7. **Tip** A soft overhead hit, one or two handed, used to deceive opponents. Tips are used primarily when the ball is close to the net, or when you face a strong blocker.

SAFETY

The majority of volleyball injuries occur when one player lands on another player's foot. Position yourself so that when you land, both of your feet remain on your side of the center line.

RULES

Out of Bounds:

- 1. Ceiling or objects attached to the opponent’s side.
- 2. Ball which hits outside line (on the line is good).
- 3. The ball must be between the antennae or the poles of the court on all returns.

RULES:

- 1. Either team may score on a serve. The serve must be over the net, and land within the boundaries of the court. On the line is good.
- 2. The server is the right back player, however, he/she may serve from anywhere behind the baseline.
- 3. Rotation for the six player team is clockwise.
- 4. A player may step on, but not over the center line.
- 5. A team is allowed three hits per side, and no player may hit the ball twice in succession. A block does not count as a hit.
- 6. Illegal hits are defined as any ball which comes to rest, is slapped or thrown, or an openhanded hit below the waist.
- 7. You may only spike if you are a front row player.
- 8. You may legally play a ball out of the net.
- 9. The desired offensive sequence is bump, set, spike.
- 10. Serving team should announce their score first.

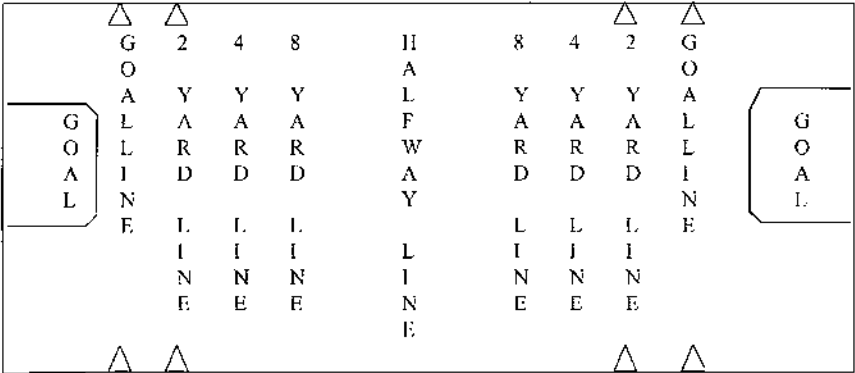
WATER POLO STUDY GUIDE

FIELD OF PLAY:

There must be distinctive marking on both sides of the field of play. They will denote the goal line, the two yard line, the four yard line, and half the distance between the goal lines.

FIELD OF PLAY:

WATER POLO STUDY GUIDE:



LENGTH OF GAME:

The duration of a game shall be 28 minutes of actual play. The game will consist of four periods of seven minutes each. There shall be two minutes between quarters and five minutes between halves.

SCORING:

A goal is scored by a ball passing fully over the goal line between goal posts. The ball may be dribbled through the goal posts. A two point goal is scored when the attempt is beyond the 7 yard line.

STARTING THE GAME:

At the start of the game the goalkeeper must be positioned between the goal-posts and the field players must take positions at least 1 yard apart on their respective goal lines. They may be no higher than water level.

The start of the game is signaled by one blast of the whistle and the referee drops the ball on the center line. Whichever player reaches the ball first may take control of or pass the ball as he/she desires. After a goal is scored, the goal keeper starts the ball back into play. The goal keeper must put the ball in play inside the four yard line within three seconds.

BALL IN AND OUT OF PLAY

If the ball rebounds into the field of play from the goal posts or crossbar, it remains in play. The ball is OUT OF PLAY when:

- a. a player throws or sends the ball out of the pool
- b. a ball hits the ceiling
- c. the ball in flight hits the pool deck above the water line
- d. the goal keeper sends the ball out of bounds while blocking a shot

GOAL KEEPER PRIVILEGES AND VIOLATIONS:

Privileges:

- a. may stand or jump from the bottom of the pool to defend the goal
- b. may throw the ball anywhere in the field of play except inside the opponents 4 yard line
- c. may go up to the halfway line (not past the 4 yard line with privileges)
- d. may use both hands on the ball or strike it with clenched fist

Violations:

- a. throws the ball inside opponents 4 yard line
- b. goes out beyond halfway line
- c. uses the side of the pool to his/her advantage

If the goal keeper is ejected, a field player may take the position but without privileges.

TECHNICAL FOULS - a free throw is awarded:

- a. to start the game before the whistle blows
- b. to use the bottom or side to your advantage
- c. to take the ball under water when being guarded by a defensive player
- d. to strike the ball with a clenched fist
- e. to be within two yards of an opponents goal line without possession of the ball
- f. when taking a free throw, throwing directly at the goal
- g. to handle the ball with two hands at the same time
- h. to cause the ball to go out of bounds

ORDINARY FOULS - a free throw is awarded:

- a. to hold, sink or pull back an opponent who is not in possession of ball
- b. to kick or strike an opponent with or without the ball
- c. to deliberately splash water in an opponent's face
- d. to deliberately place a hand in front of the opponent's face to block his/her vision

MAJOR FOULS - for which a free throw is awarded and the offending player is removed from play

- to endanger another person in any way
- to refuse any referee's call
- to exhibit unsportsmanlike conduct

FREE THROWS - shall be awarded to the nearest player in the vicinity where the foul was committed. The player has three seconds to release the ball.

PENALTY THROW - shall be awarded if an offensive player is fouled inside the penalty zone while in possession of the ball. The field players shall be positioned at the four yard area with the fouled player on the four yard line. The referee shall signal when the shot shall take place. The only defending player is the goal keeper.

WEIGHT TRAINING CURRICULUM

FRESHMAN LEVEL

BENEFITS:

- Increases speed
- Increases flexibility
- Increases strength
- Increases metabolism
- Increases muscular endurance
- Increase, decrease, or maintain body weight
- Prevents or reduces injuries
- Reduces fatigue, gives body more energy
- Strong back and abdominal muscles can help prevent low back pain



For our program, strength training is a unit of study in which a person increases her/his ability to lift heavy objects a few repetitions or one time (**muscular strength**) or the ability to lift an object or objects repeatedly for a long period of time (**muscular endurance**). Muscle shape has a lot to do with how someone looks because it gives the body its basic form and shape. The statement about muscle, "that you lost it if you don't use it!" is evident when a person has a broken arm placed in a cast. After three to five weeks when the cast is removed, the muscle is small and shriveled up or atrophied. An amazing fact is that men in their mid-to-late twenties begin to lose muscle tissue at the rate of one-half pound per year. While the same studies for females are not available, it is generally assumed that women lose less muscle mass but they too lose it without use!

The gradual loss of muscle tissue during the aging process can be prevented by a regular program of strength training. Muscle mass plays a big part in metabolism since muscle tissue burns more calories than fat tissue. Strength training should therefore, be a regular phase of everyone's physical fitness program. Few individuals have the time or capacity to develop large bulky muscles, but almost everyone can maintain his/her muscle mass into middle age by participating in a regular strength training program.

REMEMBER THESE WEIGHT TRAINING SUGGESTIONS:

- Start at the right level: If you have not lifted recently, start slowly and look to improve over a six to eight week time period.
- Always warm-up and cool-down before and after lifting: These pre and post exercise habits will minimize the chances for injury and help prevent muscle soreness.

3. Always use proper lifting technique: Use a weight that allows you to perform the movement correctly rather than cheat your way through a set with excessive weight. Proper technique includes lifting through a full range of motion in all lifts. Slow and controlled repetitions produce the best results (not throwing the weight). Do not hold your breath while lifting. Exhale on the positive or lifting phase and inhale on the negative phase.
4. Train the larger muscles first: Exercise your larger muscles first. Start with the chest and back muscles. The abdominal muscles (including the obliques) can be worked out everyday.
5. Sets and repetitions: When just starting to work out, perform at least two sets of each lift and complete 8-12 repetitions without reaching a **point of failure**. As time passes and you gain strength, increase your workout to three sets of each lift and 8-12 repetitions or less and reach a point of failure (a set in which you cannot complete the last repetition).
6. Challenge your muscles: Strength occurs when muscles are required to work at an increased workload or “**progressive overload**.” As time passes during the training period, continue to increase your workload and the body will adapt to the new demands placed upon it. These increases may be slight -again, do not try to do too much. In order to make strength gains, try to lift at least three times per week. In order to maintain strength, lift at least two times per week.
7. Allow 48 hours between workouts of any muscle group: You will get the most out of a strength training program if you rest your muscles 48 hours between sessions. During a training workout, you break down many muscle cells and your body needs 48 hours to re-build tissue so give it time.
8. Remember the difference between strength training and endurance training:

Strength Training = Fewer repetitions and more weight.

Endurance Training = More repetitions and lighter weight.

The following weight training fundamentals will be emphasized in the Freshman Physical Education Curriculum:

1. Lifting form and posture (spinal alignment)
 - Bend at hips/knee when picking something up
 - Keep head up and ears over shoulders
 - Chest over knees and knees behind toes
 - Keep head and gluteus maximus on bench - feet flat on floor
2. Breathing Technique:
 - Breath in (inhale) on negative phase (eccentric)
 - Breath out (exhale) on positive phase (concentric)
3. Safety Considerations:
 - Utilize a spotter • Use spring collars provided
 - Do not lift over head while standing
 - Use belts if performing squats or power cleans
 - Do not drop weights or plates
 - Stack weight plates and strip bars and put dumbbells back after using.
 - Slow controlled repetitions are more beneficial than fast movements. Control what is lifted. Some sources say to take two seconds to lift the weight (positive phase) and four seconds to return the weight to its original position (negative phase)
4. Strength Training:
 - Low reps
 - Heavy weight

5. Endurance Training:

- High reps
- Light weight

6. The Overload Principle:

- In order to increase strength, you must exercise until muscular fatigue; unable to perform another repetition with proper form. You then may ask your spotter to assist you with additional reps.

1 Muscle Actions - Exercises

<u>MUSCLE</u>	<u>MOTION</u>	<u>EXERCISE</u>
Bicep	Flexes arm	Bicep curls
Tricep	Extends arm	Tricep extension
Deltoid	Moves arms away from body	Military press
Lats	Moves arms toward body	Lat pulls
Pectorals	Pushing motion	Bench
Abdominals	Flex torso	Curl-ups
Obliques	Rotate torso	Twisting curl-up
Quadriceps	Extend knee	Leg extension
Hamstrings	Flex knee	Leg curls
Gluteals	Extend hip	Lunges/Squats
Trapezius	Elevates Shoulders	Upright Rows
Gastrocnemius	Extends Foot	Toe Raises

1. Range of Motion:

- A properly executed lift should be done with a full range of motion

2. Weight Room Considerations:

- Strip bars
- Pick-up/put away plates/dumbbells
- No food/drink/gum
- No horseplay
- Safety first always

SOPHOMORE LEVEL

1. Review Freshman Fundamentals (See previous pages)

2. Training Techniques:

Circuit Training - Students partner up and while one person lifts, the other does an aerobic activity or rests.

3. Alternating aerobic and lifting cycles:

Aerobic cycles may include jump rope, jog in place, jumping jacks, squat thrusts, sit-ups, push-ups, etc.

4. Alternating lifting and rest cycles.

- A. Pyramid Training Change weight and repetition during workout; as repetitions get less, amount of weight is increased.

<u>Repetitions</u>	<u>Weight Lifted</u>
10 x	100 pounds
8 x	110 pounds
6 x	120 pounds
4 x	130 pounds
2 x	140 pounds

- B. High Intensity Training - One set of maximum repetitions (more than 10 reps - No than 15). If student completes all repetitions, the next workout raise the total weight.
- C. Dumbbell Training - Lifts
Any lift that can be done with Olympic bars can be done with dumbbells: flies, rows, curls, pullovers, kickbacks
- D. Strength Training:
High weight
Low reps
- E. Endurance Training:
High reps
Low weight
- F. Negative Training

Lifter performs eccentric/negative phase as slowly as possible. (Counting to 5) Being sure to keep breathing. Never stop bar - keep it moving

JUNIOR - SENIOR LEVEL

1. Review - Muscle Identification and Actions
2. Application of previous knowledge Developing your own weight training program

WRESTLING

BENEFITS OF ACTIVITY:

1. Improve cardiovascular endurance and muscular strength and endurance through the activity and unit.
2. Students can develop an understanding of the sport for further participation (high school team) or as a spectator.
3. Perform basic techniques fundamental to the activity.
4. Demonstrate an understanding of several wrestling moves.

TERMINOLOGY:

- A. As a result of Beginning Wrestling, the student should be able to:
 1. Demonstrate improvements in cardiovascular fitness.
 2. Perform basic techniques fundamental to the activity. This includes being able to demonstrate and cognitively understand the following criteria:
 - a. Takedowns:
 - Single leg
 - Double leg
 - Ankle picks
 - Arm drag
 - Duck under
 - b. Takedown from the rear:
 - Forward sweep
 - Front trip
 - c. Escapes - reversals:
 - Basic stand-up
 - Sit-out
 - Switch
 - Side rolls

- d. Riding:
- Ankle riding, picks
 - Tight waist
 - Head lever
 - Concept: changing sides

- e. Pinning Combinations:
- Half Nelson variations
 - Far side cradle
 - Near side cradle
 - Basic chicken wing

- f. Technical Violations:
- Grasping any clothing
 - Locked hand around the body
 - Delaying the match

- g. Stalling:

- h. Basic stalling principles

1. Explain the difference between illegal holds and technical violations.
2. Define basic terminology applicable to the activity.
3. Demonstrate a basic understanding of the point system and officiating procedures of a wrestling match.
4. Participate in a dual meet set-up which will assess strategies and plans in attempts to develop sportsmanship and an idea of a team concept.

B. As a result of Intermediate Wrestling, the student should be able to:

1. Exhibit cardiovascular endurance.
2. Understand and perform all beginning wrestling concepts.
3. Perform intermediate techniques which are fundamental to the activity. This includes being able to demonstrate and cognitively understand the following criteria:

- a. Take-downs and Finishing:

- High single switching to double
- Basic high crotch
- Lateral throwing

- b. Escapes - Reversals

- Sit-back series
- Inside and outside stand-up series
- Granby series

- c. Riding

- Spiral
- Tight waist
- Cross-body riding

- d. Pinning

- Half Nelson series
- Intermediate cradling
- Ball and chain
- Tilts

3. Apply technical strategies in match situations.
4. Demonstrate a working knowledge of stalling and illegal starts.
5. Demonstrate a working knowledge of rules and basic officiating.

RULES AND SAFETY CONCERNS:

- A. All mats used must be cleaned and sanitized on a daily basis in order to prevent skin infections (i.e. impetigo).
- B. Any maneuver which attempts to injure or jeopardize a particular extremity is illegal. All rules and techniques are designed for the health and safety of the wrestler.
- C. Insist students wear soft-bottomed gym shoes and/or wrestling shoes or socks on the mat at all times. Do not allow students to wrestle in bare feet.
- D. Illegal holds / techniques, which should be refrained from. They include:
 1. Full Nelson
 2. Toe holds
 3. Strangler holds
 4. Twisting holds
 5. Holds over breathing passageways
 6. Grasping less than four fingers
 7. Any maneuver (kicking, punching) with the intent to inflict pain
 8. Slamming
 9. Chin or neck wrenching
 10. Hammer locks
 11. Butting
 12. Elbowing
 13. Gouging
- E. Students should be paired according to height and weight How many points are each worth?
 1. Take-down2
 2. Reversal.....2
 3. Escape1
 4. Near fall (less than 5 seconds)2
 5. Near fall (More than 5 seconds)3
 6. 1st penalty point.....1

Team Scoring - Dual Meet

Decision - 3 points

Major decision (8-14) - 4 points

Technical Fall (15 point margin) - 5 points

Fall - 6 points

REFERENCE SECTION

Muscle Groups - Front

Muscle Groups - Back

The State of Youth Fitness

Aerobic Exercise

Self Evaluation - The 12 Minute Run

Cardiovascular And Jump Rope Activities

Don't Lose Weight, Lose Fat & Inches

Student Written Projects

Food Guide Pyramid

Daily Nutritional Chart

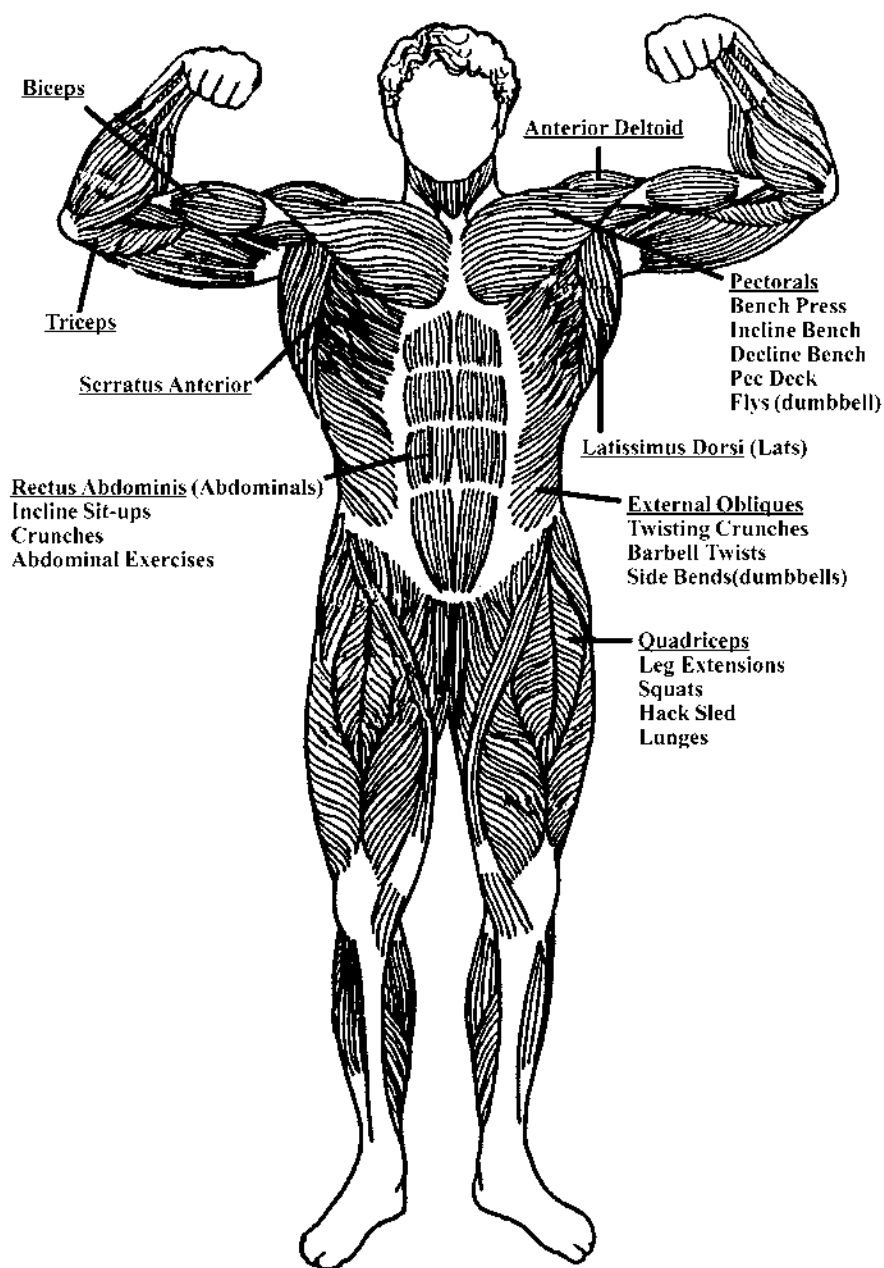
Cumulative Data Sheet

Glossary

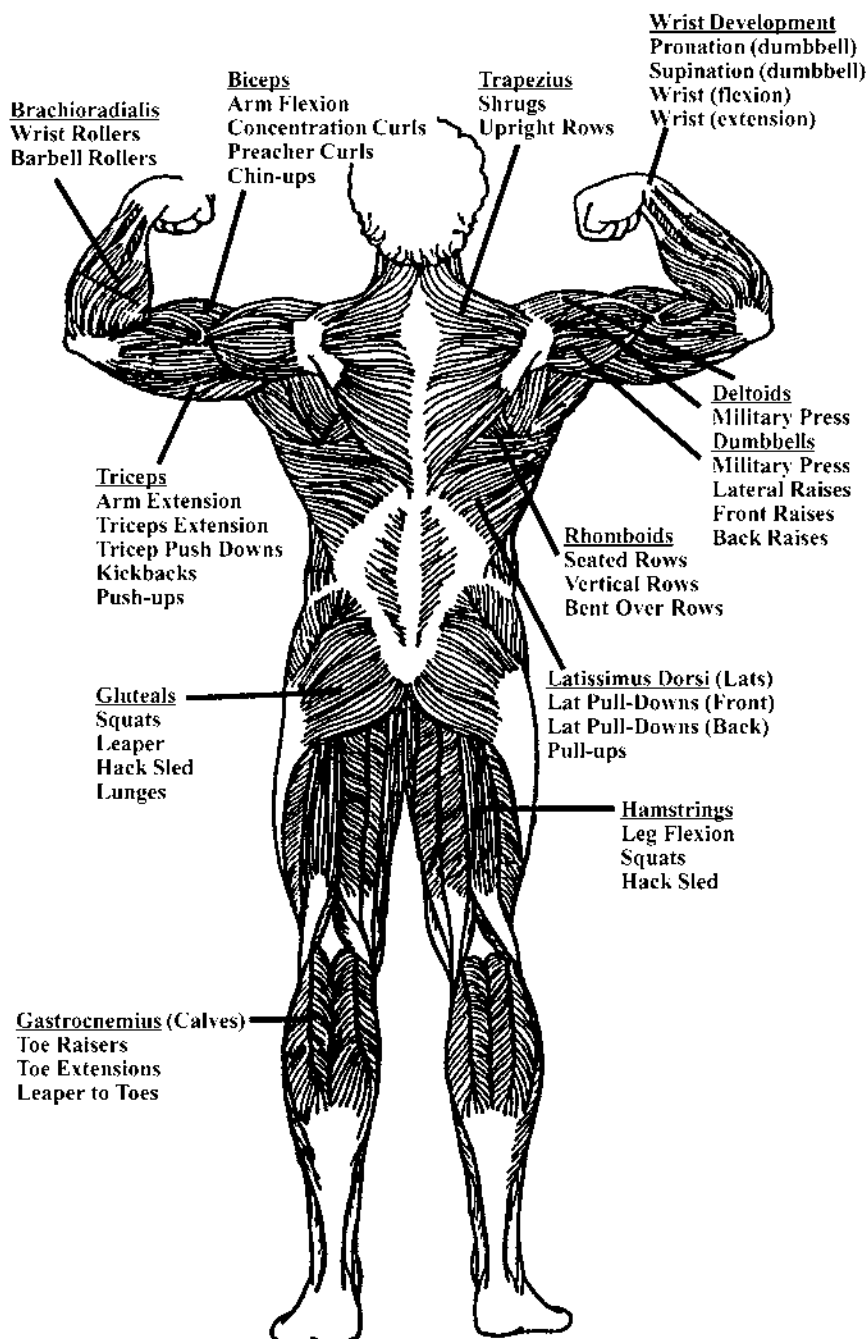


CARL SANDBURG P.E. DEPARTMENT
PHYSICAL EDUCATION RESOURCE BOOK

MUSCLE GROUPS - Front



MUSCLE GROUPS - Back



BE A LIFESAVER; HELP SOMEONE TO GET MOVING TODAY!!

THE NEED FOR REGULAR EXERCISE

The need for regular physical activity for overall health and well-being has been recommended by many sources. Covert Bailey, in his book, *Smart Exercise* states, "We're born with a fabulous machine that is able to repair itself almost like magic. All you have to do is exercise and your machine gets healthier." Bailey refers to total body or systemic exercise which affects the lungs, liver, heart, circulatory system, bones, and muscles. This kind of exercise is also known as "aerobic" exercise and lasts at least twelve minutes without stopping, gets you breathing more deeply than usual, but not out of breath and primarily puts the large muscles of the legs and buttocks to work.

Another source, the Illinois Department of Public Health in its Internet publication, Health Beat states the following claims. "Making exercise a regular part of your life can provide the following benefits:

- Increase the amount of blood your heart can pump
- Lower resting heart rate
- Improve cholesterol levels
- Lower blood pressure
- Reduce body composition (body fat)
- Provide an outlet for managing stress
- Improve sleeping habits"

The American Heart Association in its Statement on Exercise: Benefits and Recommendations For Physical Activity Programs For All Americans claims that, "regular aerobic physical activity increases exercise capacity and plays a role in both primary and secondary prevention of cardiovascular disease." Also mentioned in this scientific statement is the fact that regular exercise can help control blood abnormalities, diabetes, and obesity. Other studies in this report revealed that active persons are more likely to be better adjusted, to perform better on cognitive tests and to exhibit fewer symptoms related to depression and anxiety. The report further states, "persons of all ages should include physical activity in a comprehensive program of health promotion and disease prevention and increase their habitual physical activity to a level appropriate to their capacities, needs and interest." Suggested activities include walking, hiking, stair-climbing, aerobic exercise, calisthenics, resistance training, jogging, running, bicycling, rowing, swimming and recreational sports such as tennis, racquetball, soccer, basketball and touch football. Also mentioned was the fact that these activities are especially beneficial when performed regularly.

The report also clarified what role the school should play with regard to physical activity. This included emphasizing to children the principles of regular exercise and that schools, at all levels "must develop and encourage positive attitudes toward physical exercise and provide opportunities to learn and perform physical skills that can be enjoyed for many years." The American Heart Association report concludes that "further developments and study should focus not only on the benefits of physical activity, but also the methods used to facilitate dissemination of present and future knowledge to all members of society."

More than a dozen federal, state, and local government agencies including:

- The U. S. Department of Education
- The Centers for Disease Control and Prevention
- The American College of Sports Medicine
- The American Heart Association

endorse the following Healthy People 2010 objectives.

YEAR 2010 OBJECTIVES

- ✓ Improve access to comprehensive, high-quality health care services.
- ✓ Prevent illness and disability related to arthritis and other rheumatic conditions, osteoporosis, and chronic back conditions
- ✓ Reduce the number of new cancer cases as well as the illness, disability, and death caused by cancer.
- ✓ Reduce new cases of chronic kidney disease and its complications, disability, death, and economic costs.
- ✓ Through prevention programs, reduce the disease and economic burden of diabetes, and improve the quality of life for all persons who have or are at risk for diabetes.
- ✓ Promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population.
- ✓ Increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and improve health and quality of life.
- ✓ Promote health for all through a healthy environment.
- ✓ Includes preventing unintended pregnancy.
- ✓ Reduce foodborne illnesses.
- ✓ Use communication strategically to improve health.
- ✓ Improve cardiovascular health and quality of life through the prevention, detection, and treatment of risk factors; early identification and treatment of heart attacks and strokes; and prevention of recurrent cardiovascular events.
- ✓ Prevent human immunodeficiency virus (HIV) infection and its related illness and health.
- ✓ Prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases.
- ✓ Reduce injuries, disabilities, and deaths due to unintentional injuries and violence.
- ✓ Improve the health and well-being of women, infants, children, and families.
- ✓ Ensure the safe and effective use of medical products.
- ✓ Improve mental health and ensure access to appropriate, quality mental health services.
- ✓ Promote health and reduce chronic disease associated with diet and weight.
- ✓ Promote the health and safety of people at work through prevention and early intervention.
- ✓ Prevent and control oral and craniofacial diseases, conditions, and injuries, and improve access to related services.
- ✓ Improve health, fitness, and quality of life through daily physical activity.
- ✓ Ensure that Federal, Tribal, State, and local health agencies have the infrastructure to provide essential public health services effectively.
- ✓ Promote respiratory health through better prevention, detection, treatment, and education efforts.
- ✓ Promote responsible sexual behaviors, strengthen community capacity, and increase access to quality services to prevent sexually transmitted diseases (STDs) and their complications.
- ✓ Reduce substance abuse to protect the health, safety, and quality of life for all, especially children.
- ✓ Reduce illness, disability, and death related to tobacco use and exposure to secondhand smoke.
- ✓ Improve the visual and hearing health of the Nation through prevention, early detection, treatment, and rehabilitation.

***Each of these objectives is directly related to our daily physical education curriculum and the faculty wellness program.**

In July 1996 the *Surgeon General's Report on Physical Activity and Health* was completed to summarize existing research regarding the benefits of physical activity in preventing disease and to draw conclusions that can be useful to Americans who are interested in improving their health.

Various organizations were involved in preparing the report. These included the following: The Centers for Disease Control and Prevention (CDC) and the President's Council on Physical Fitness and Sports (PCPFS) were asked by the office of the Surgeon General to collaborate on this project. Other organizations involved included the National Institutes of Health (NIH), the American Alliance for Health, Physical Education Recreation and Dance (AAHPERD), the American College of Sports Medicine (ACSM) and the American Heart Association (AHA).

The following conclusions were made from this report:

1. People of all ages can substantially improve their health and quality of life by including moderate amounts of physical activity in their daily lives. (A moderate amount of physical activity is roughly equivalent to physical activity that uses approximately 150 calories of energy per day or 1,000 calories per week).
2. Significant health benefits can be obtained by including a moderate amount of physical activity (e.g., 30 minutes of brisk walking, 15 minutes of running, or 45 minutes of volleyball) on most, if not all, days of the week. Through a modest increase in daily activity, most Americans can improve their health and quality of life.
3. Additional benefits can be gained through greater amounts of physical activity. People who can maintain a regular regimen of activity that is longer duration or of more vigorous intensity are likely to derive the greater benefit.
4. Physical activity reduces the risk of premature mortality in general and of coronary heart disease, hypertension, colon cancer, and diabetes. Physical activity also improves mental health and is important for the health of muscles, bones and joints.
5. More than 60 percent of American adults are not regularly physically active. In fact, 25 percent are not active at all.
6. Nearly half of American youths 12-21 years of age are not vigorously active on a regular basis. Moreover, physical activity declines dramatically during adolescence.
7. Experts advise previously sedentary people embarking on a physical activity program to start with short durations of moderate-intensity activity and gradually increase the duration or intensity until the goal is reached.
8. Recent recommendations from experts also suggest that cardiorespiratory endurance activity should be supplemented with strength-developing exercises at least twice per week for adults, in order to improve musculoskeletal health and maintain independence in performing the activities of daily life.
9. Regular physical activity that is performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness and death in the United States.

Given the numerous health benefits of physical activity, the hazards of being inactive are clear. Physical inactivity is a serious, nationwide problem. Estimates are that up to 250,000 deaths per year in the United States, about 12 percent of total deaths, are due to a lack of regular activity. (Only tobacco related deaths rank higher). Its scope poses a public health challenge for reducing the national burden of unnecessary illness and premature death.

"Many Americans may be surprised at the extent and strength of the evidence linking physical activity to numerous health improvements. Most significantly, regular physical activity greatly reduces the risk of dying from coronary heart disease, the leading cause of death in the United States. Physical activity also reduces the risk of developing diabetes, hypertension, and colon cancer, enhances mental health, fosters healthy muscles, bones, and joints and helps maintain function and preserves independence in older adults."

**Philip R. Lee, Assistant Secretary of Health and David Satcher,
Centers for Disease Control and Prevention.**

As noted, a great deal of research has been done about the benefits of regular exercise. The physical education department will continue to promote regular moderate to vigorous physical activity that impacts the entire body (aerobic systemic exercise). We will also strive to improve the five Health-Related Physical Fitness components including flexibility, cardiovascular endurance, muscular strength, muscular endurance, and body composition and evaluate each at least four times each school year. Students will also acquire the knowledge and skills necessary to assist them in making appropriate lifestyle choices, both now and in the future. Another way that we, as parents and teachers, can motivate young people to remain active is to do so ourselves. By engaging in regular activity and encouraging them to do so can only help them understand the value of these lifestyle habits.

THE STATE OF YOUTH FITNESS

Many medical and fitness organizations have prepared position statements regarding the fitness levels of today's youth. The American Academy of Pediatrics states that children are not as fit today as they were 20 years ago. Financial strains and back-to-basics trend in schools, the lure of television, and the difficulty in motivating children to exercise for their health all work against the health-related fitness movement. Pediatricians must, therefore, appeal to schools to maintain, if not increase, their physical education programs, and encourage family involvement in fitness activities at home.

On the whole, states the American Academy of Family Physicians, children are not physically fit. All children in all grades should have access to daily physical education and to structured physical activity in the schools. Students should undergo fitness testing twice a year and receive remedial attention, if necessary.

The President's Council on Physical Fitness and Sports states that children are not as physically fit as they should be. Although there has been no basic change in children's fitness levels over the last ten years, children are not as fit as they could be. Fitness testing is an important part of physical education programs, to the extent that it gauges individual programs toward a desired goal.

Recent studies have also painted a grim picture of the state of fitness in our youth:

- A study of 12,000 youths sponsored by the Amateur Athletic Union and the Chrysler Corporation showed that only 32% of children aged 6 to 17 met minimal standards for cardiovascular fitness, flexibility and abdominal and upper body strength. These findings represented a decline from 1981 in which 43% were considered to be in acceptable shape.
- Thirty-seven percent of children are considered fit, according to a 1990 study prepared by the US Center for Disease Control. The study found that the number of children who vigorously exercise three or more times per week has dropped nearly 40% since 1984.
- A recent report from the President's Council on Physical Fitness and Sports shows that a third of all boys from age 6 to 12 and 50% of girls ages 6 to 17 cannot run a mile faster than walking speed, about 10 minutes. More than 50% of the girls and 25% of the boys cannot do a single pull-up. Forty percent of the boys could only do one.
- According to the US Department of Health and Human Services more than 40% of children age 5 to 8 are already exhibiting major coronary risk factors including obesity, high blood pressure, high cholesterol levels and low cardiovascular efficiency.
- It has been concluded at the Institute for Aerobics Research that because of poor fitness, at least 30 to 35% of the school age population are at risk for early heart or circulatory disease and premature death as adults.
- A 1987 study by the US Public Health Service found that obesity has increased 9% among children 6 to 11 years old and 6% among children 12 to 17 years old during the last 20 years.

The question is, "Is it a lack of fitness or fatness which has created this problem?" It is more than even those. Another major cause for these problems is the home atmosphere created by the parents. Parents are potentially the most influential role models for their children. They must constantly monitor their child's educational and fitness programs and nurture each. This is presently not the case as discovered from a recent Harris poll for Prevention magazine which found that 85% of the parents surveyed said their children were physically fit!

A major culprit in most home environments is the television. Most kids are involved in watching TV or playing video games as prime leisure or after school activities. American children aged 2 to 5 watch an average of 25.5 hours of television per week. Children 6 to 11 spend nearly 23 hours a week watching TV. Related to this habit is the fact that food is also the most heavily advertised product during children's programming. Children see more than 11,000 low nutrition junk food ads a year. In these commercials, 95% of the characters are thin or of average weight, 5% are overweight or obese. The message in these ads is, "Eat anything you want, and get away with it."

Needless to say, growing up in the 80's and 90's is different than ever before. Many kids are out of shape, they are fatter and have developed poor lifestyle habits. What can be done to attack these problems? The following suggestions are made to get a high percentage of our children back on the road to a healthy lifestyle.

WHAT CAN BE DONE TO IMPROVE FITNESS LEVELS

1. Parents need to set a good example for their children. This means that parents must serve as role models by being involved in their own regular exercise program. Parents need to show their children that regular exercise is a priority, that it helps relieve stress, and helps you look and feel better.
2. Limit the family's intake of fast food. Try to minimize fast food purchases to once a week and three times a month. Help your children to choose low-fat foods and nutritious selections: an important nutritional habit to establish is to encourage children to eat a large breakfast everyday which would include a whole grain cereal, a fruit juice (vitamin C) and whole wheat toast or a bagel.
3. Limit TV and VCR use to one hour per day. Noted in the context of this article the use of TV, VCR and video games must be limited.
4. Get involved in your child's health and fitness development. Support and encourage your child's efforts in the area of physical development. Do so by organizing family fitness outings which may include walking, jogging, hiking, bicycling, tennis, basketball, swimming, bowling, ping pong, ice-skating, golf, frisbee. etc. Parents can also help coach or supervise youth activities offered in the community or informal activities. According to a 1986 report in *The Physicians and Sports Medicine*, "parental support was the major factor that influences the child's interest in participation" in two child fitness studies.
5. Do not force your child to play competitive sports. Emphasize fun and fitness, not winning and hard work. A 1987 report from the Research Quarterly completed by a group of researchers from the University of Texas concluded that, "activities must be highly enjoyable, thereby fostering positive attitudes towards physical activity that may carry over into adulthood."
6. Lobby for better school Physical Education programs. Find out what your schools are doing to promote, evaluate, develop and promote health-related fitness. Health related fitness tests should be administered at least twice a year. These tests would show whether children are basically healthy or not. These tests are not designed to measure athletic ability or fitness levels that accompany high level conditioning. The health-related battery of tests should include measurement in each of the following areas:
 - Aerobic or cardiovascular endurance capacity
 - Muscular strength
 - Muscular endurance
 - Flexibility
 - Body composition

Motivating young people to attain minimal levels of these components will not be an easy task to complete. It will take a great deal of effort and communication between parents, teachers, recreation directors, coaches, doctors and students to make significant gains. Unless we concentrate on the deficiencies in the lifestyles of our children, there is no way that we can expect to see further improvement in the health, quality of life and longevity of our growing population.

AEROBIC EXERCISE

Aerobic exercises are those which demand large quantities of oxygen for prolonged periods and ultimately force the body to improve those systems which transport oxygen. Aerobic exercises use the large muscles of the lower body including the quadriceps, (front of upper leg), hamstrings, (back of upper leg) and gluteal muscles (buttocks). This kind of exercise characteristically involves covering long, slow distances rather than short bursts of speed. It also gets the participant warm and breathing without being really out of breath. The physical benefits associated with aerobic exercise include the following:

- The total blood volume increases so that the body is better trained to transport oxygen.
- Lung capacity increases and this increased capacity to deliver oxygen is associated with a greater longevity.
- The heart muscle grows stronger and with each heart beat there is an increased stroke volume which pumps more oxygenated blood through the circulatory system.
- HDL, or High Density Lipoprotein, increases as a result of aerobic exercise. This “good” cholesterol helps reduce the potential for developing atherosclerosis, or hardening of the arteries.
- Aerobic exercise promotes strong and healthy bones. Bone strength is related to levels of physical activity. Bone, like muscle, tends to get stronger and thicker the more it is exercised.

Examples of potential aerobic exercises are listed below:

Walking/walking with hand held weights, Stationary bicycle, Slow jogging, Rowing machine, Bicycling, Treadmill, Hiking, Stair climbing, Cross-country skiing, Cross-country ski machine, Roller Blading, Video tape: a. aerobic dance b. step aerobics, Long distance swimming (laps), Running

- Other activities such as tennis or basketball may be aerobic if the participant is continuously moving and elevates the heart rate to the appropriate level. The more one exercises aerobically, the more oxygen delivered. Train often enough, at the appropriate intensity, and watch the fat go away. Twenty-one percent of the air we breathe is oxygen. How much of that percentage the body can deliver to the body’s cells determines the amount of fat burned. Aerobic exercise can also increase the body’s metabolism. A sedentary person has a lower fat burning capacity than an active person. It is in part due to the active aerobic person having a higher metabolism. Thus, the greater aerobic capacity a person develops, the higher the metabolism.

Cardiovascular disease is the number one killer in the United States. Many of these deaths are due to inactivity and poor personal lifestyle habits. Most of these are preventable. One way to help prevent the onset of heart disease is to participate in regular aerobic exercise.

The secret to maximizing the benefits of aerobic exercise is to follow the F.I.T.T. principles.

F.I.T.T. is an acronym for four important aspects of an aerobics exercise program.

- **F = Frequency:** People should exercise at least 3-5 times per week for beneficial results. Aerobic exercise less than three days will not help develop or maintain fitness. Getting more than five days of aerobic exercise will help burn additional calories but there is a greater risk of injury if the body does not have time off to rest.
- **I = Intensity:** The appropriate intensity or pace for aerobic exercise is determined by monitoring your exercising heart rate (pulse). A simple procedure is to stop exercising every ten minutes and immediately count your pulse. (Count your pulse at the radial artery located at the base of the wrist below the thumb using the middle and index finger to gently feel for the pulse).

Researchers have found that if individuals keep their heart rate within a certain range for 15 to 60 minutes, the exercise they do can contribute to cardiovascular fitness. This range is known as the Target Heart Rate. A simple way to check for Target Heart Rate:

1. Every five or ten minutes, stop exercising and immediately count your pulse for 6 seconds.
2. Your pace should fall within the range given below for your age group. (If your pulse is lower, increase your pace; if it is above the total shown, slow down).

Age	Your Target Zone
20's	14-17 beats/6 seconds
30's	13-16 beats/6 seconds
40's	12-15 beats/6 seconds
50's	12-14 beats/6 seconds
60's	11-13 beats/6 seconds
70's	10-12 beats/6 seconds

- **T - Time:** Clinical studies have shown that is necessary to keep the heart (pulse) rate in the target zone for at least 15-30 minutes for cardiovascular benefits. The key is that the exercise is continuous and not be of a stop and go variety. Weight watchers should plan on getting at least 30-60 minutes of exercise each session for burning the additional calories they may want to burn.
- **T - Type:** Vary the type of exercise you engage in. Include exercise which develops cardiovascular endurance, muscular strength, muscular endurance, flexibility and improves your body composition.

Before Starting an Exercise Program

1. Do not limit your exercise to only aerobic exercise. Incorporate isotonic (weight bearing) exercises such as weight training and calisthenics (push-ups and sit-ups) as well as flexibility exercises to supplement the aerobic phase.
2. If an individual is thirty-five years or older and has not exercised regularly, a medical exam should be completed before embarking on an exercise program. This might include a stress test to measure cardiovascular efficiency and a blood test to check cholesterol, HDL, LDL, triglyceride levels, etc.
3. Remember to exercise aerobically using a “conversational pace. “That is, be able to talk with someone while exercising. Maintain the long, slow, distance approach to improve cardiovascular endurance.
4. Aerobic exercise is analogous to an oil change for your car in that it too, removes waste products and regenerates the system with a fresh ingredient, in this case; oxygen.
5. Do not expect immediate results. It will take at least six weeks of regular exercise using the F.I.T.T. principles to see results. Be patient and stick to it.

DON'T LOSE WEIGHT, LOSE FAT & INCHES

At a social gathering I recently attended, a young man I'll refer to as J.R. told me about the plight of his recent weight loss program. He told me that he had been getting up early four or five times a week for seven weeks to ride an exercise bicycle for 30-35 minutes each session. He also stated that he ate no breakfast, and ate a light lunch which usually consisted of a salad or soup and bread without butter. At supper he often chose red meat, a favorite of his, and periodically ate chicken or turkey for a change. The result of all of this physical and nutritional effort was a WEIGHT GAIN OF SEVEN POUNDS.

At this point, I questioned J.R. about his approach to dieting and fitness. He was extremely discouraged by the weight gain which he had worked so hard to lose. The first question I asked concerned his lack of food at breakfast-time. Although difficult to change a life long habit, I encouraged him to eat breakfast in order to get his metabolism going early in the day. The breakfast should consist of a whole grain cereal with a carbohydrate content of 24 or higher. This high fiber cereal is low in calories (4 calories per gram) and the complex carbohydrate will provide high energy until lunch time. Breakfast should also include a fruit juice such as orange juice or grapefruit juice (vitamin C) as well as other fruits such as bananas, pineapple slices or oranges. A bagel or slice of toast with cream cheese or jam are other excellent healthy choices at breakfast. I also suggested to J.R. not to eat after 7:00 p.m. the previous night so that he would be hungry to eat in the a.m. the next day.

Lunch should provide energy to get through the afternoon hours. Turkey, chicken or tuna fish are excellent sandwich choices. If cold cuts are selected they should be lean cuts. Fat free and low salt pretzels are an excellent carbohydrate source (23 gram and no fat) and provide the crunch for lunch. Red meat may be selected periodically as long as daily portions are limited and the choices are lean cuts. Baked or boiled potatoes are excellent complex carbohydrate sources and low in calories - (a medium baked potato is approximately 80 calories as long as you do not load up on butter or sour cream or other fatty additives). Apples are also an excellent choice at lunch providing only 80 calories and no fat grams.

Supper should include skinless chicken or turkey or lean cuts of beef, lamb, pork, veal or fish. Vegetables such as peas, green beans, corn, etc. provide vitamins and nutrients to the diet and are low in fat content and calories. Be aware of vegetables sold in cream sauces which add fat grams and therefore additional calories. Pasta (prepared without eggs) with a small amount of sauce is a great energy (carbohydrate) source. Triathletes and marathon runners use pasta to load up on carbohydrates ten to twelve hours before their competition is to take place.

Lunch and supper choices can be varied by selecting different types of leafy green salads. Limit the use of salad dressing and other additives such as cheeses and olives or the healthy salad will become a high fat caloric nightmare.

J.R.'s approach to exercise was to ride the exercise bike as hard as he could for 30-35 minutes. I asked him if it was difficult and he said he would "sweat all over" and was totally exhausted when finished. I was concerned with his approach and asked him what he believed was happening. He thought that unless there was "no pain there was no gain." He also thought that the harder he pedaled the more weight he would lose. I told him that he was training primarily anaerobically - that is without oxygen and needed to slow down.

By slowing down and exercising at a more moderate rate (70% of 220 - age - J.R. is 30 years old $220 - 30 = 190 \times .70 = 133$ heart beats per minute) J.R. will burn fat if he exercises at approximately 135 beats per minute for 15-60 minutes, 3-5 times per week.

A key factor of this type of exercise (L.S.D. - long, slow distance training) is that calories are not only burned during actual exercise but also for additional hours thereafter. Regular aerobic exercise will burn fat stored in the body. J.R. must realize this does not happen overnight. In conjunction with aerobic exercise J.R. was encouraged to incorporate a strength training program. This should include daily exercises including push-ups and sit-ups at home and weight training

exercises at the facility where he presently exercises. These exercises included specific stations for biceps, triceps, pectorals, lats, and deltoids. These muscle strengthening exercises should be performed 3 days per week at 8-12 repetitions in conjunction with regular aerobic exercise.

This healthy exercise routine and nutritional plan will allow the body to sustain a high percentage of muscle which keeps the body's metabolic rate higher.

P.S. -Remember J.R. -Be patient and follow these basic principles in order to reach your goal:

1. Limit fat intake, when possible avoid fried foods, sauces, gravies, rich desserts, cold cuts, hot dogs, large portions of meats, margarine, mayonnaise or salad dressings.
2. 50% of food intake should be a carbohydrate such as fresh fruits, fruit juices, fresh vegetables, peas, potatoes, corn, pasta, bread made from whole grain flour and whole grain cereals.
3. Exercise aerobically -fat burns in the presence of oxygen so exercise in a long steady manner at approximately 70% of 200 -age. If feasible use a weight bearing exercise which burns fat - push-ups, weight lifting - deltoids, sit-ups, pectorals, lats, biceps, triceps. When finished exercising, you should feel slightly tired. As you continue to exercise regularly, your endurance will improve and you will feel better and have more energy. You will gain some weight (more muscle - muscle weighs more) and you will lose inches. Give yourself 6 months of this routine and you will be amazed at the results.

STUDENT WRITTEN PROJECTS

The following written projects are potential assignments for students who are medically excused from all or part of the course activities.

1. Write a paper describing your current health status. Be specific as to any particular medical problems - explain their possible causes, describe current limitations they pose, suggested treatment, and future prognosis.
2. Describe the differences between aerobic and anaerobic exercise programs. State the specific benefits of an aerobic exercise program and give the guidelines for an effective aerobic exercise. State the sources used in preparing your report.
3. Describe how your culture, family, friends, schedule, etc., influence your eating habits. Point out the good points and the bad. What changes should you make in your eating habits?
4. Read three current articles on nutrition and prepare a written summary of the main points of each article. This summary may be a narrative written in paragraph form, a series of isolated sentences covering main points and major supporting evidence, or a topic or sentence outline. Be certain you state the source of your report.
5. Analyze your daily lifestyle and comment on changes you could implement to remove or reduce stress. List the references used.
6. Critique three articles on a given subject.
7. Cereal Analysis: Students evaluate the nutritional value of four different cereal products according to the nutritional information provided on the package or label.
8. Eating Breakfast: Have students recognize the common excuses for failure to eat an adequate breakfast and replace them with reasons in favor of starting the day with breakfast.
9. Have students visit two health spas and compare: (a) costs; (b) equipment available; (c) number of instructors and ages of instructors; (d) education of instructors; and (e) programs available.
10. Read and review a current fitness exercise book such as Covert Bailey's Smart Exercise.
11. Report on any diet plan - give disadvantages and harmful effects.
12. Compare body building to weight training for competition.
13. Use the following articles as reference for article review.
14. The student may decorate and put up a bulletin board around an appropriate fitness or health theme
15. The student may complete a poster on a theme agreed upon by teacher and student.

SELF EVALUATION - 12 MINUTE RUN

Doing the 12 minute run:

- To take the test, run or jog as far as you can in 12 minutes.
- The farther you run the better your score. Your score is the amount of distance you cover in 12 minutes. Measure to the nearest 20 yards.
- As you take the test, try to set a pace that you can keep up for all 12 minutes of the run. A steady pace is best. If you start fast and then have to slow down at the end, you will probably not be able to run as far as you could if you ran a slower, steadier pace for the full 12 minutes.
- The 12 minute run is taken for your own information. It is not a race. It is true that you should do your best so that you will know your level of cardiovascular fitness. But it is no disgrace if you cannot run as far as someone else. You should try to work to improve your fitness so you can do better the next time you take the test.
- Write your score in the chart on your self-evaluation record sheet.
- When you record your results, use the first part of the chart only. You are only expected to do this test once in class unless your instructor tells you otherwise.
- Check your score on the rating chart for your sex, and write your rating on the Cardiovascular Fitness Scores chart.

Rating Chart: 12-Minute Run

Number of yards						
Rating	13-14 yrs.		15-16 yrs.		17-20 yrs.	
	men	women	men	women	men	women
Excellent	3000	2100	3100	2300	3350	2600
Good	2650	1900	2800	2100	3000	2300
Fair	2500	1800	2600	1900	2800	2000
Needs	2400	1700	2500	1700	2600	1700

Improvement

12 MINUTE RUN-YARDAGE BREAKDOWN

LAPS	YARDS COVERED	LAPS	YARDS COVERED
4	1760	6	2640
4-1/4	1870	6-1/4	2750
4-1/2	1980	6-1/2	2860
4-3/4	2090	6-3/4	2970
5	2200	7	3080
5-1/4	2310	7-1/4	3190
5-1/2	2420	7-1/2	3300
5-3/4	2530	7-3/4	3410

A TEST FOR RECOVERY FROM EFFORT

1. Take your pulse, sitting;
2. Climb a flight of stairs;
3. Take our pulse again.

If your heart is fit, your pulse after climbing the stairs will be around 88 to 90 beats per minute. If you're out of shape, it can zoom to 160. Anything over 90 needs improvement.

A QUICK RECOVERY TEST

1. Take your pulse, sitting, to determine your normal heart rate.
2. Run in place for fifteen seconds.
3. Sit down and take your pulse, noting how long it takes to return to normal.

If it is back to normal in 30 seconds - *EXCELLENT*:

..... 60 seconds - *GOOD*

..... 120 seconds - *FAIR*

..... from 120 to 189 seconds - *POOR*

If your heart rate is slower after exercise, tell your doctor.

JOG IN-PLACE TEST

A popular test used at the Cleveland YMCA requires a one-minute period of jogging. It's probably as accurate as any short test can be.

1. Run in place briskly for one minute.
2. Stop, sit, and take your pulse for fifteen seconds.

Multiply by four to get your pulse rate per minute.

Your rating:

84 to 96 beats per minute	<i>VERY GOOD</i>
102 to 114	<i>ABOVE AVERAGE</i>
120 to 132	<i>AVERAGE</i>
138 to 149	<i>BELOW AVERAGE</i>
150 to 161	<i>POOR</i>
162 and up	<i>VERY POOR</i>

To use your pulse rate as a kind of exercise thermostat, you need to know:

1. Your resting heart rate (sitting)
2. Your maximum heart rate
3. Your heart reserve - which is the difference between the resting rate and the maximum rate.

GRADING SCALES - JUMP ROPE

2 Minute Timing

275 and up	=	A
225 - 274	=	B
175 - 224	=	C
125 - 174	=	D
below 125	=	F

SIX MINUTE ROPE JUMPING PROGRAM FOR INTERVAL TRAINING

1st Minute:	10 sec. - High Intensity, then 50 sec.	Moderate Intensity
2nd Minute:	15 sec. - High Intensity, then 45 sec.	Moderate Intensity
3rd Minute:	20 sec. - High Intensity, then 40 sec.	Moderate Intensity
4th Minute:	25 sec. - High Intensity, then 35 sec.	Moderate Intensity
5th Minute:	30 sec. - High Intensity, then 30 sec.	Moderate Intensity
6th Minute:	35 sec. - High Intensity, then 20 sec.	Moderate Intensity then 5 sec. - High
Count down: 5 - 4 - 3 - 2 - 1 Jog in place - Nice Job!		

The suggested speeds are listed below:

<u>Intensity</u>	<u>Jump Rope Turns per min.</u>	<u>Speed</u>	<u>Training Zone</u>	<u>Calories per min.</u>
Low	60-80 turns	Slow	60% of max.	10-12 per min.
Moderate	120-145 turns	Medium	75% of max.	12-15 per min.
High	145+ turns	Fast	85% of max.	15+ per min.

MODIFIED STEP TEST EVALUATING CARDIOVASCULAR ENDURANCE

For young adults - a 17 inch bench or bleacher - 30 steps per minute - if you have metronome, set it for 120 beats per minute. The cadence can be announced up - up - down - down in the same manner.

Females: Two minute duration

Males: Three minute duration

1. Participant performs test as described above.
2. Participant sits down after designated time for test. (2 or 3 minute time limit)
3. Rest for one full minute.
4. Count pulse for 30 seconds and multiply total x 2.

NORMS	MEN	WOMEN
Excellent	Below 100	Below 110
Above Average	100-110	110-120
Average	111-124	121-134
Poor	Above 125	Above 135

Anatomy of MyPyramid

One size doesn't fit all

USDA's new MyPyramid symbolizes a personalized approach to healthy eating and physical activity. The symbol has been designed to be simple. It has been developed to remind consumers to make healthy food choices and to be active every day. The different parts of the symbol are described below.

Activity

Activity is represented by the steps and the person climbing them, as a reminder of the importance of daily physical activity.

Moderation

Moderation is represented by the narrowing of each food group from bottom to top. The wider base stands for foods with little or no solid fats or added sugars. These should be selected more often. The narrower top area stands for foods containing more added sugars and solid fats. The more active you are, the more of these foods can fit into your diet.

Personalization

Personalization is shown by the person on the steps, the slogan, and the URL. Find the kinds and amounts of food to eat each day at MyPyramid.gov.

Proportionality

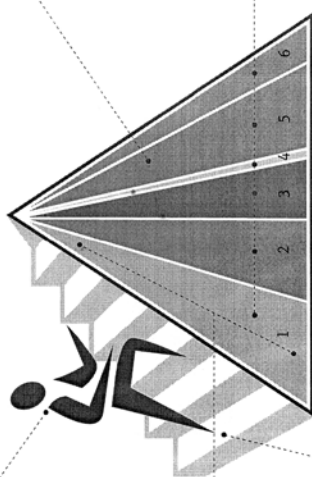
Proportionality is shown by the different widths of the food group bands. The widths suggest how much food a person should choose from each group. The widths are just a general guide, not exact proportions. Check the Web site for how much is right for you.

Variety

Variety is symbolized by the 6 color bands representing the 5 food groups of the Pyramid and oils. This illustrates that foods from all groups are needed each day for good health.

Gradual Improvement

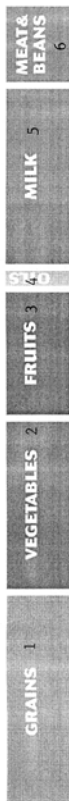
Gradual improvement is encouraged by the slogan. It suggests that individuals can benefit from taking small steps to improve their diet and lifestyle each day.



MyPyramid.gov
STEPS TO A HEALTHIER YOU

USDA
U.S. Department of Agriculture
Center for Nutrition Policy and Promotion
April 2009, CNPP-16

USDA is an equal opportunity provider and employer.



**AMERICAN HEART ASSOCIATION
DIETARY GUIDELINES: AT-A-GLANCE**

1. **Achieve an overall healthy eating pattern.**
 - Choose an overall balanced diet with foods from all major food groups, emphasizing fruits, vegetables and grains.
 - Consume a variety of fruits, vegetables and grain products
 - At least 5 daily servings of fruits and vegetables
 - At least 6 daily servings of grain products, including whole grains.
 - Include fat-free and low-fat dairy products, fish, legumes, poultry and lean meats.
 - Eat at least two servings of fish per week.
2. **Achieve a healthy body weight.**
 - Avoid excess intake of calories.
 - Maintain a level of physical activity that achieves fitness and balances energy expenditure with caloric intake; for weight reduction, expenditure should exceed intake.
 - Limit foods that are high in calories and/or low in nutritional quality, including those with a high amount of added sugar.
3. **Achieve a desirable cholesterol level.**
 - Limit foods with a high content of saturated fat and cholesterol. Substitute with grains and unsaturated fat from vegetables, fish, legumes and nuts.
 - Limit cholesterol to 300 milligrams (mg) a day for the general population, and 200 mg a day for those with heart disease or its risk factors.
 - Limit *trans* fatty acids. Trans fatty acids are found in foods containing partially hydrogenated vegetable oils such as packaged cookies, crackers and other baked goods; commercially prepared fried foods and some margarines.
4. **Achieve a desirable blood pressure level.**
 - Limit salt intake to less than 6 grams (2,400 mg sodium) per day, slightly more than one teaspoon a day.
 - If you drink, limit alcohol consumption to no more than one drink per day for women and two drinks per day for men.

NAME _____

DATE _____ DAY – S M T W T H F SA

DAILY NUTRITIONAL CHART**FOOD PYRAMID****9-11 Servings Bread, Rice, Cereal, Pasta**1
2
3
4
5
6
7
8
9
10
11**3-5 Servings – Vegetables**1
2
3
4
5**2-4 Servings – Fruit Group**1
2
3
4**2-3 Servings Meat, Poultry, Fish, Beans, Nuts**1
2
3**2 – 3 Servings Milk, Yogurt, Cheese**1
2
3**Fats, Oils, Sweets – Use Sparingly**1
2**Liquids consumed**1. H₂O
2.
3.**DAILY EXERCISE CHART****Cardiovascular – Aerobic Exercise**_____

_____**Servings:**

Bread	= 1 slice
Cereal	= 1 ounce ready to eat cereal ½ cup cooked cereal
Rice, Pasta	= ½ cup cooked rice or pasta 5-6 small crackers
Vegetables	= 1 cup raw leafy vegetables ½ cup chopped raw vegetables ½ cup cooked chopped vegetables ¾ cup vegetable juice
Fruits	= 1 medium piece fresh fruit ½ cup cooked or canned fruit ¾ cup fruit juice
Milk	= 1 cup milk 1 cup yogurt ½ ounce natural cheese 2 ounces processed cheese
Meat	= 2-3 ounces cooked lean meat
Fish	= 2-3 ounces cooked fish
Poultry	= 2-3 ounces cooked lean poultry
Dry Beans	= ½ cup cooked dry beans
Eggs	= 1 egg
Nuts, seeds	= 2 tablespoons peanut butter 1/3 cup nuts/seeds
Fats	= No specific amount (limit intake)
Oils	= No specific amount (limit intake)
Sweets	= No specific amount (limit intake)

NAME _____

DATE _____ DAY - S M T W TH F SA

DAILY NUTRITIONAL CHART

FOOD PYRAMID

9-11 Servings Bread, Rice, Cereal, Pasta

1
2
3
4
5
6
7
8
9
10
11

3-5 Servings - Vegetables

1
2
3
4
5

2-4 Servings - Fruit Group

1
2
3
4

2-3 Servings Meat, Poultry, Fish, Beans, Nuts

1
2
3

2 - 3 Servings Milk, Yogurt, Cheese

1
2
3

Fats, Oils, Sweets - Use Sparingly

1
2

Liquids consumed

1. H₂O
2.
3.

DAILY EXERCISE CHART

Cardiovascular - Aerobic Exercise

Servings:

Bread	= 1 slice
Cereal	= 1 ounce ready to eat cereal ½ cup cooked cereal
Rice, Pasta	= ½ cup cooked rice or pasta 5-6 small crackers
Vegetables	= 1 cup raw leafy vegetables ½ cup chopped raw vegetables ½ cup cooked chopped vegetables ½ cup vegetable juice
Fruits	= 1 medium piece fresh fruit ½ cup cooked or canned fruit ½ cup fruit juice
Milk	= 1 cup milk 1 cup yogurt ½ ounce natural cheese 2 ounces processed cheese
Meat	= 2-3 ounces cooked lean meat
Fish	= 2-3 ounces cooked fish
Poultry	= 2-3 ounces cooked lean poultry
Dry Beans	= ½ cup cooked dry beans
Eggs	= 1 egg
Nuts, seeds	= 2 tablespoons peanut butter 1/3 cup nuts/seeds
Fats	= No specific amount (limit intake)
Oils	= No specific amount (limit intake)
Sweets	= No specific amount (limit intake)

EXERCISE

BICEP CURLS



MUSCLE(S) DEVELOPED

Biceps (Belly)

Lifting Procedure

1. Sit or stand, hold weight palms forward
2. Lift weight bending elbow
3. Return to start position

HAMMER CURLS



Biceps (Length)

Lifting Procedure

1. Same as biceps curl action
2. Turn hand so that thumb/index finger are forward

FOREARM CURLS



Brachialis (forearm)

1. Same as bicep curl action
2. Palms are facing backward
3. Bend elbow using full (R.O.M.)

TRICEPS EXTENSION

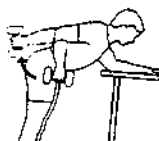


Triceps

Lifting Procedure

1. Hold weight in hand
2. Position arm overhead, elbow bent, as shown.
3. Straighten arm
4. Return to start position and repeat

TRICEPS KICKBACKS



Triceps

Lifting Procedure

1. Stand, leaning over chair or table, arm back, elbow bent, as shown
2. Hold weight in hand
3. Straighten elbow through available range
4. Return to start position

MILITARY PRESS



Deltoids, Triceps

Lifting Procedure

1. Sit or stand
2. Hold weights in hands, arms at side, elbows bent, as shown
3. Lift weights up and overhead
4. Return to start position and repeat

BENCH PRESS



Pectorals, Triceps, Deltoids

Lifting Procedure

1. Lie on bench or exercise ball
2. Grasp dumbbells palms forward
3. Press dumbbells to extended arm position
4. Return to original position and repeat

EXERCISE

FLYS / EXERCISE BALL



STANDING (HORIZONTAL LIFT)



BENT OVER ROW



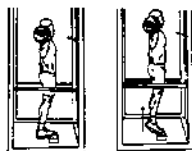
LUNGES



SQUATS



CALF RAISES



MUSCLE(S) DEVELOPED

Pectorals

Lifting Procedure

1. Dumbbells in hands, arm extended
2. Keep elbows slightly bent
3. Bring dumbbells together above chest
4. Repeat

Pectorals

Lifting Procedure

1. Stand with arms out to sides, elbows straight
2. Hold weights in hands
3. Lift up to middle, keeping elbows straight
4. Return to start position and repeat

Lats – Rhomboids

Lifting Procedure

1. Stand, leaning over chair or table, arm back, elbow bent, as shown.
2. Hold weight in hand.
3. Straighten elbow through available range.
4. Return to start position.

Hamstring, Quadriceps, Gluteals

Lifting Procedure

1. Hold dumbbells along side
2. Legs together to start – step forward
3. Keep lead knee and foot aligned and toes straight ahead
4. Flex the knee slowly and under control
5. Keep lead knee directly over lead foot
6. Return to starting position and repeat

Hamstrings, Quadriceps, Gluteals

Lifting procedure

1. Hold dumbbells at shoulder height
2. Feet shoulder width apart
3. Keep weight on middle of foot and heels, not toes
4. Slowly lower hips until tops of thighs are parallel to floor
5. Slowly return to up position and repeat

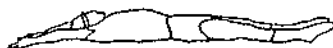
Gastrocnemius, Soleus

Lifting Procedure

1. Hold dumbbells at shoulder height
2. Feet shoulder width apart
3. Position balls of feet on edge of raised surface
4. Push up on toes as high as possible in a slow manner
5. Return to floor with heels and repeat

Exercises for the Abdominal Muscles

The following descriptions and pictures will show you a three part stomach routine to work all of your stomach muscles. If your stomach gets tight during or after the exercises, perform a full body stretch as shown below to relieve tightness.



The first exercise is called the **AB CURL**. Start on your back with the knees bent, feet flat and hands across your chest (Fig. 1a). Curl up by bringing your shoulder blades off the mat approximately 30 degrees (Fig. 1b) and then lower yourself back downward (Fig. 1c)

Do not throw your head up but keep your head and neck in a stable position. When you lower your upper body you do not have to lower the back of your head all the way to the ground before doing another repetition.



1a.



1b.



1c.

The second exercise is the **ELBOW TO KNEE AB CURL**. It is the same starting position as the first exercise except that you interlace your fingers behind your head and raise your feet off the floor. As in the first exercise raise your upper body 30 degrees off the mat (Fig. 2a) and then bring both of your elbows toward your knees, touching about two inches above the knees (Fig. 2b). As you uncurl, lower yourself as in (Fig. 2c) and then repeat action as in (Fig. 2b) to work the upper and lower abdominals. Do not lower your feet too far and create an arch in the lower back. Keep the lower back flat at all times during abdominal work.



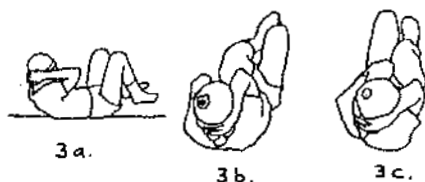
2a.

2b.

2c.

The third exercise is called the **TWISTING ELBOW-KNEE AB CURL**. The starting position is the same as the elbow-knee ab curl above. Raise your shoulder blades and feet off the mat (Fig. 3a) and alternate touching your right elbow to left knee (Fig. 3b) and then left elbow to right knee (Fig. 3c). Keep your upper body in a flexed position during this exercise. The movement of the knees should be forward and back as you would do when riding a bike. Move the upper body slightly side to side, but do not let

your knees cross the midline (middle) of your body. Relax your ankles when doing these last two exercises.



Exercises for the Arms and Chest

Knee push-ups are very good for upper body development and maintaining muscle tone. Different exercises can be performed to work various parts of the arms and chest. Starting position is on the hands and knees. The hands are on the ground parallel to each other and a little more than shoulder width apart (Fig. 4a). The wider your hands the more you work the chest muscles. The push-up should be completed by lowering your body straight down until you barely touch your chest (Fig. 4b). Whether doing regular push-ups or knee push-ups you must keep your back straight and your posterior from sticking up in the air.



If you want to develop the back of the upper arm (triceps), place your hands shoulder width apart and keep your elbows close to your body (Fig 5a). As you perform this exercise do not let your elbows bow out, but keep them almost directly over your hands and next to the sides of your body. To develop the pectorals, widen your hands, but maintain good body posture (head up, back flat and posterior down) (Fig 5b)



After doing push-ups, stretching in any of the positions shown below will loosen the muscles used.



GLOSSARY

1. **Abdominals** -The group of muscles forming the anterior supporting wall of the pelvic and stomach regions.
2. **Achilles Tendon** - The tendon which connects the heel bone and the calf muscle.
3. **Aerobic** - Refers to those activities that require oxygen for prolonged periods and place enough of a demand (overload) on the body that beneficial changes occur in the lungs, heart and vascular system. (Aerobic exercise involves covering slow distance rather than short bursts of speed).
4. **Anaerobic** -Refers to exercises which do not utilize the oxygen a person presently is breathing. An anaerobic activity is a 100 yard dash. (Anaerobic exercise is characterized by bursts of speed or effort).
5. **Atrophy** -Loss of size or mass; usually refers to muscle atrophy because of a lack of use. Atrophy occurs when an arm is in a cast.
6. **Ballistic Stretch** -This is a bouncing, jerky method of trying to stretch muscle tissue.
7. **Basal Metabolic Rate** - The lowest rate of energy production and absorption in the body during the least activity - a complete rest and quiet relaxed state.
8. **Biceps** -The large flexor muscle of the upper arm.
9. **Blood Pressure** -The force exerted by the blood against artery walls; the pressure of the blood in the arteries.
10. **Body Composition** - The make-up of the body in lean body mass and fat mass. It is usually referred to as a percentage of fat and lean body mass.
11. **Brachioradialis** -A muscle that extends from the elbow to the wrist and aids in the rotation of the forearm.
12. **Caliper** - A device used to measure skinfold body fat obtained by pinching the skin.
13. **Calorie** -A calorie is the measure of heat-producing value of food when used by the body.
14. **Capillaries** - The smallest blood vessels that carry blood to the body tissues.
15. **Carbohydrates** - A major source of energy during exercise primarily found in sugars and starches. Simple sugars include sugar, honey, candy and fruits. Complex carbohydrates include enriched and fortified breads and cereals, pasta, rice and vegetables.
16. **Cardiovascular Disease** - Diseases of the heart and blood vessels. Presently the number one killer in the United States. (Fact: Almost one of two Americans die of cardiovascular disease).
17. **Cardiovascular Endurance** - The ability of the heart, blood vessels, blood and lungs to deliver oxygen to the body.
18. **Carotid Artery** - The carotid artery is located on each side of the neck. Pulse rate can be measured at the carotid, but if it is depressed too hard, it may slow down the pulse rate 3 to 4 beats per minute.
19. **Cholesterol** -A waxy fatty-like material used by the body in a variety of chemical processes. It is also associated with hardening of the arteries and serious heart disease.
20. **Circuit Training** -A set and numbered sequence of exercises performed for specific periods of time.
21. **Cool-down** -A short period of mild exercise after a session of vigorous activity. It usually consists of walking, slow jogging and stretching.
22. **Cooper's Point System** - This is an aerobic point system derived from laboratory measurements of the oxygen cost of various types of exercise. The aerobic points refer to the energy expended.

23. **Concentric Contraction** - A muscle contraction in which one end of the muscle remains stationary while the other end pulls the bone and turns the joint. (An example would be bicep curls - flexion movement).
24. **Conversational Pace** - This is a running pace suggested by Cooper to insure that beginning joggers do not go too fast. Both runners should be able to converse while jogging and not be out of breath.
25. **Diastolic** (diasystole) - The lowest phase of blood pressure measured in the arteries. It occurs when the heart muscle is relaxed between beats.
26. **Deltoid** - A large muscle covering the shoulder joint and serving to raise the arm laterally.
27. **Dynamometer** - A strength testing machine measuring force exerted one time.
28. **Eccentric Contraction** - This is a gradual releasing of a muscular contraction returning a muscle to its original length, (such as lowering body during a pull-up).
29. **Extension** - This is a term used to indicate the straightening movement of muscles at a joint.
30. **External Oblique** - Stomach muscles located on either side of the rectus abdominus muscles (each side of the stomach area) which are developed by performing twisting sit-ups or abdominal exercises.
31. **Fats** - The major source of essential fatty acids. A carrier for fat soluble vitamins and a source of energy during endurance exercise. (Including milk, butter, margarine, eggs, liver and kidney, leafy green and yellow vegetables).
Fats* should provide 20 - 30% of daily caloric intake (9 calories per gram)
Sources include:
Unsaturated: Safflower oil, corn oil, margarine's; Saturated: Solid shortenings, butter, meat, milk *Most Americans eat too much fat! Fat calories are unhealthy and fattening. Foods high in fat calories include: French fries, potato chips, mayonnaise, chocolate, hamburgers, fried chicken, bacon, sausage and butter.
32. **Fiber** - The non-digestible part of some plant foods. Fiber serves as an intestinal "house-cleaner." High fiber diets have been linked to less colon cancer and lowering cholesterol. Fruits, vegetables, grains and cereals are good sources of fiber.
33. **F.I.T.T. Principle** - "F" stands for frequency of exercise, which is recommended at least three times per week. "I" stands for intensity or 70-75% of maximum heart rate and "T" for time or duration of exercise 15 - 30 minutes. The last "T" stands for the type of exercise.
34. **Flexibility** - The movement of a body part through its full range of motion.
35. **Futrex** - A machine that calculates a person's body composition, that is the percentage of lean muscle mass and body fat. See chart in Freshmen Wellness section.
36. **Gastrocnemius** - The medical name for the calf muscles of the largest muscle of the lower leg.
37. **Gluteus Maximus** - The medical term for the buttocks muscle.
38. **Hamstrings** - The muscle group of the posterior (back) of the upper leg.
39. **Health-Related Fitness** - One aspect of physical fitness more important to physical well-being and includes cardiovascular endurance, strength, muscular endurance, flexibility and body composition.
40. **HDL** - High density lipoproteins. One part of a person's total cholesterol known as "good cholesterol" and coat the inside artery walls to prevent fatty deposit build-up and serve as scavengers to help dissolve fatty deposits. Aerobic exercise has been shown to raise HDL's in the body.
41. **Hydrostatic Weighing** - One method, also known as underwater weighing to measure body composition (body fat).

42. **Hypertension** - Another term for high blood pressure which is a chronic increase in blood pressure above its normal range. Blood pressure is usually reduced following weight loss. Pressure exceeding 140/90 is considered hypertension.
43. **Hypertrophy** - The increase in mass and strength of a muscle resulting from high intensity weight training.
44. **Hypokinetic Disease** - Diseases that develop due to a sedentary (lack of exercise) type of lifestyle. Included would be obesity, heart disease, and low back pain.
45. **Interval Training** - Repeated bouts of exercise at high intensity, mixed with light exercise or periods of rest.
46. **Isokinetic** - A type of muscle contraction that works a muscle through the entire range of motion using variable resistance and speed. (With Isokinetic exercise, the participant must work to lift the weight and to bring it back to the starting point).
47. **Isometric** - These activities are characterized by physical exercise that contracts muscles, yet doesn't move joints or extremities. A contraction of the muscle against an immovable object.
48. **Isotonic** - Exercises that require contraction of a muscle and movement of a joint, an extremity or both in the contraction phase. These exercises build muscle mass and strength. Examples include weight lifting and calisthenics.
49. **Latissimus Dorsi** - The medical term for the largest muscle of the back. (LATS)
50. **LDL - Low Density Lipoprotein** - Another form of cholesterol which are quite responsive to dietary habits and form dangerous deposits on the walls of blood vessels and are primary culprits in clogged arteries and arteriosclerosis.
51. **Leisure Time** - This is the available "free" time people have to use as they wish. Some people choose to exercise, watch television or participate in a hobby.
52. **Lifestyle** - This is the way a person chooses to live. A lifestyle study was performed by Dr. Lester Breslow at U.C.L.A. in 1965, in which he studied a very large group of happy, healthy, productive and long lived individuals. They all followed his seven steps to a healthy lifestyle. (See Junior-Senior Wellness Concepts Section)
53. **Ligament** - A strong band of connecting tissue that holds bone to bone.
54. **Low Back Pain** - Considered by many medical authorities to be the number one medical complaint today. It is estimated that 25 million Americans seek a doctor's care for back pain.
55. **Maximum Heart Rate** - The highest heart rate capable by the human body. It is figured by subtracting age from 220.
56. **Muscular Endurance** - The ability of a muscle or a group of muscles to work for a period of time.
57. **Muscular Strength** - Muscular strength is the amount of force a muscle can exert one time.
58. **Negative Phase** - The return phase of an exercise to the starting position. The participant returns slowly to an original position by supporting his or her weight. (pull-ups)
59. **Norm** - An average standard of achievement based on a large population sample.
60. **Obesity** - an increase in body weight beyond physical and skeletal requirements due to an accumulation of excess fat. It's usually applied to a condition of 20 percent or more over ideal body weight. Obesity puts a strain on the heart and can increase the chance of developing high blood pressure and diabetes.
61. **One-Mile Run** - A measure of cardiovascular endurance of the ability of the heart, lungs and vascular system to deliver oxygen over a period of time.
62. **Osteoporosis** - A deterioration of bone mass as a person ages, particularly females.

- 63. Overload Principle** - If a muscle is to increase in endurance and strength, it must be worked at a load greater than it is used to. Overload happens by increasing the resistance, increasing the speed, and/or increasing the number of reps.
- 64. Pacer** - A fitness test which measures cardiovascular endurance capacity by increasing the individual's pace as by increasing the passes.
- 65. Pectorals** -The muscles which connect the upper arms and shoulders to the chest.
- 66. Percentiles** -A value on a scale of 100 indicating a distribution. A rating of the 70th percentile means achieving a score higher than 70% of those being tested.
- 67. Physical Education** - That phase of education designed to teach the concepts and benefits of a healthy lifestyle through active participation in psychomotor and physical fitness activities.
- 68. Physical Fitness** -The ability to carry on everyday activities without undue stress or fatigue, while remaining able to respond to the increased demands of an emergency. It also includes the ability to pursue recreational activities without pain, stress or exhaustion.
- 69. Progression Principle** - Refers to the gradual increase of exercise or activity over a period of time. As the body is forced to work harder, it will adapt to the stress and improve.
- 70. Proteins** -Should provide 12 - 15% of daily caloric intake, (4 calories per gram)
- 71. Quadriceps** -The great extensor muscle of the front (anterior) of the thigh.
- 72. Radial Artery** - The radial artery is located at the wrist, with the palm up.
- 73. Range of Motion** - The degree of flexibility of a body joint. (Full range is if motion is when a body joint is movable to its full limit without undue stress.
- 74. Recovery Heart Rate** -A measurement after strenuous exercise indicating the rate at which the heart beat returns to normal. This is measured, for instance, after a step test.
- 75. Rectus Abdominus** - The medical term for the abdominal muscles.
- 76. Regularity Principle** - A principle which states that exercise for physical fitness must be carried on consistently on a daily, weekly, and monthly basis to be effective.
- 77. Repetition** -The number of repeated movements or exercises performed.
- 78. Resting Pulse Rate** - This is a measure of pulse rate after complete rest. A true resting pulse is as soon as you wake up.
- 79. Set** -A predetermined number of repetitions.
- 80. Skill Related Fitness** - Those aspects of fitness which help a person perform motor tasks, such as sports and recreational activities. Included are coordination, agility, speed, balance, reaction time and power.
- 81. Skyndex** -An electronic, digital body fat calculator.
- 82. Specificity Principle** - This principle refers to the fact that improvements in various fitness areas require specific kinds of activity. Each area of fitness requires specific demands, and training for one area does not necessarily improve another.
- 83. Spot Reduction** - Spot reduction is an attempt to reduce a specific area of the body. Many advertisements claim spot reduction is possible. ***It is not possible to do.***
- 84. Static Flexibility** - The ability to move joints and muscles slowly through a wide range of motion. Static flexibility should be emphasized by holding the stretch for 10-60 seconds.
- 85. Step Test** - A type of test used to evaluate cardiovascular fitness. This test measures heart rate to evaluate the level of fitness and heart recovery rate.
- 86. Steroids** -Steroids are hormones that assist in developing muscle mass. The use of steroids can cause cancer of the liver, increased blood pressure, decreased testicular size and decreased sperm production.

- 87. Stroke Volume** - The amount of blood pumped out of the heart on each contraction of the left ventricle.
- 88. Systolic (Systole)** - The highest blood pressure measured in the arteries. It occurs when the heart contracts and ejects blood with each heart beat.
- 89. Target Heart Pulse Rate** - the range of heart rate during exercise that creates a “training effect” on certain beneficial cardiovascular changes in the body. The minimum rate at which your heart should be beating to get the optimum aerobic conditioning effect.
- 90. Tendon** - Tissue that attaches muscle to bone.
- 91. Teres Major** - A muscle of the upper back located beneath the shoulder (posterior side). (A muscle of the rotator cuff).
- 92. Training Effect** - The physiological results of doing vigorous fitness activities.
- 93. Trapezius** - A large diamond shaped muscle of the upper back and base of the neck (posterior side).
- 94. Triceps** - The three headed extensor muscle of the upper arm. The antagonistic muscle to the biceps muscle.
- 95. 12 Minute Run** - A timed test used to measure cardiovascular endurance by running for twelve minutes and then comparing distance covered to norms (averages)
- 96. Warm-Up** - Warm-up is the preparation of the body before exercise which gradually increases heart rate and body temperature and reduces the chances of muscle soreness and injury.
- 97. Weight Lifting** - A competitive sport in which participants try to lift more weight than their opponents.
- 98. Weight Training** - Weight Training is an exercise program which includes isotonic exercises using barbells, dumbbells, exercise or weight machines.
- 99. Wellness** - A state of healthy balance whereby an individual makes sound decisions regarding lifestyle based upon empirical research.

CUMULATIVE DATA SHEET

[illegible]

MAX LIFT CALCULATED FROM MULTIPLE REPS OF LOWER WEIGHT

WEIGHT REPS	115 MAX
1	115.0
2	118.3
3	121.8
4	125.5
5	129.4
6	133.6
7	138.0
8	142.8
9	147.9
10	153.4
11	159.3
12	165.7
13	172.6
14	180.1
15	188.3

WEIGHT REPS	135 MAX
1	135.0
2	138.9
3	142.9
4	147.3
5	151.9
6	156.8
7	162.0
8	167.6
9	173.6
10	180.0
11	187.0
12	194.5
13	202.6
14	211.4
15	221.0

WEIGHT REPS	155 MAX
1	155.0
2	159.4
3	164.1
4	169.1
5	174.4
6	180.0
7	186.0
8	192.5
9	199.3
10	206.7
11	214.7
12	223.3
13	232.6
14	242.7
15	253.8

WEIGHT REPS	185 MAX
1	185.0
2	190.3
3	195.9
4	201.8
5	208.1
6	214.9
7	222.0
8	229.7
9	237.9
10	246.7
11	256.2
12	266.5
13	277.6
14	289.7
15	302.9

WEIGHT REPS	205 MAX
1	205.0
2	210.9
3	217.1
4	223.7
5	230.6
6	238.1
7	246.0
8	254.5
9	263.6
10	273.4
11	283.9
12	295.3
13	307.6
14	321.0
15	335.6

WEIGHT REPS	225 MAX
1	225.0
2	231.4
3	238.2
4	245.5
5	253.2
6	261.3
7	270.0
8	279.4
9	289.4
10	300.1
11	311.6
12	324.1
13	337.6
14	352.3
15	368.4

WEIGHT REPS	245 MAX
1	245.0
2	252.0
3	259.4
4	267.3
5	275.7
6	284.6
7	294.0
8	304.2
9	315.1
10	326.8
11	339.3
12	352.9
13	367.6
14	383.7
15	401.1

WEIGHT REPS	275 MAX
1	275.0
2	282.9
3	291.2
4	300.0
5	309.4
6	319.4
7	330.1
8	341.4
9	353.7
10	366.8
11	380.9
12	396.1
13	412.7
14	430.6
15	450.2

	DATE:		
Exercise	Wt/rep		
CHEST (PECTORAL)			
Bench Press (Free or DB)			
Wide Chest (Hammer #10)			
Seated Chest Press (Flex)			
Incline Press (Free, DB, or Hammer #9)			
Decline Press (Hammer #8)			
Pec Deck (Flex)			
Cable Crossovers (Life)			
SHOULDER (DELTOID, TRAPEZIUS)			
Military Press (Free or DB)			
Military Press (Hammer #3, Smith, or Flex)			
Upright Rows (Free or Smith)			
Ground Base Jammer (Hammer #13, 14)			
Deltoid Fly (Flex)			
Front Raises (DB)			
Lateral Raises (DB)			
Shrugs (Free, DB, Smith, Hammer #11)			
BACK (LATISSIMUS DORSI, RHOMBOID)			
Pull-ups (Free or Flex)			
Pull-downs (Life or Hammer #7)			
Seated Rows (Life, Hammer #4, or Flex)			
Rows (DB)			
LEGS (QUADRICEPS, HAMSTRINGS, GLUTEALS, GASTROCNEMIUS)			
Squats (Free)			
Squats (Hammer #20 or Smith)			
Ground Base Squat (Hammer #11)			
Lunges (Free or DB)			
Leg Press (Hammer #18)			
Leg Extensions (Hammer #16 or Flex)			
Leg Curls (Hammer #15 or Flex)			
Leg Adduction (Flex)			
Leg Abduction (Flex)			
Calf Raises (Hammer #17)			
ARMS (BICEPS, TRICEPS)			
Curls (Free or DB)			
Preacher Curls (Hammer #1 or Flex)			
Cable Curls (Life)			
Push-downs (Life)			
Reverse Push-downs (Life)			
Dips (Free or Flex)			
Seated Dips (Hammer #2)			
French Curls Triceps Extensions (Free)			

	DATE:		
Exercise	Wt/rep		
CHEST (PECTORAL)			
Bench Press (Free or DB)			
Wide Chest (Hammer #10)			
Seated Chest Press (Flex)			
Incline Press (Free, DB, or Hammer #9)			
Decline Press (Hammer #8)			
Pec Deck (Flex)			
Cable Crossovers (Life)			
SHOULDER (DELTOID, TRAPEZIUS)			
Military Press (Free or DB)			
Military Press (Hammer #3, Smith, or Flex)			
Upright Rows (Free or Smith)			
Ground Base Jammer (Hammer #13, 14)			
Deltoid Fly (Flex)			
Front Raises (DB)			
Lateral Raises (DB)			
Shrugs (Free, DB, Smith, Hammer #11)			
BACK (LATISSIMUS DORSI, RHOMBOID)			
Pull-ups (Free or Flex)			
Pull-downs (Life or Hammer #7)			
Seated Rows (Life, Hammer #4, or Flex)			
Rows (DB)			
LEGS (QUADRICEPS, HAMSTRINGS, GLUTEALS, GASTROCNEMIUS)			
Squats (Free)			
Squats (Hammer #20 or Smith)			
Ground Base Squat (Hammer #11)			
Lunges (Free or DB)			
Leg Press (Hammer #18)			
Leg Extensions (Hammer #16 or Flex)			
Leg Curls (Hammer #15 or Flex)			
Leg Adduction (Flex)			
Leg Abduction (Flex)			
Calf Raises (Hammer #17)			
ARMS (BICEPS, TRICEPS)			
Curls (Free or DB)			
Preacher Curls (Hammer #1 or Flex)			
Cable Curls (Life)			
Push-downs (Life)			
Reverse Push-downs (Life)			
Dips (Free or Flex)			
Seated Dips (Hammer #2)			
French Curls Triceps Extensions (Free)			

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Incline Press (Free, DB, or Hammer #9)			
Decline Press (Hammer #8)			
Pec Deck (Flex)			
Cable Crossovers (Life)			
SHOULDER (DELTOID, TRAPEZIUS)			
Military Press (Free or DB)			
Military Press (Hammer #3, Smith, or Flex)			
Upright Rows (Free or Smith)			
Ground Base Jammer (Hammer #13, 14)			
Deltoid Fly (Flex)			
Front Raises (DB)			
Lateral Raises (DB)			
Shrugs (Free, DB, Smith, Hammer #11)			
BACK (LATISSIMUS DORSI, RHOMBOID)			
Pull-ups (Free or Flex)			
Pull-downs (Life or Hammer #7)			
Seated Rows (Life, Hammer #4, or Flex)			
Rows (DB)			
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Leg Curls (Hammer #15 or Flex)			
Leg Adduction (Flex)			
Leg Abduction (Flex)			
Calf Raises (Hammer #17)			
ARMS (BICEPS, TRICEPS)			
Curls (Free or DB)			
Preacher Curls (Hammer #1 or Flex)			
Cable Curls (Life)			
Push-downs (Life)			
Reverse Push-downs (Life)			
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French Curls Triceps Extensions (Free)			

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Cable Curls (Life)			
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