

COURSE: Health	GRADE(S): 10 th Grade
UNIT: Personal Fitness	TIMEFRAME: 5 Lessons

NATIONAL STANDARDS:	
STANDARD 1:	Students will comprehend concepts related to health promotion and disease prevention to enhance health.
STANDARD 2:	Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
STANDARD 3:	Students will demonstrate the ability to access valid information and products and services to enhance health.
STANDARD 5:	Students will demonstrate the ability to use decision-making skills to enhance skills.
STANDARD 6:	Students will demonstrate the ability to use goal-setting skills to enhance health.
STANDARD 7:	Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
STANDARD 8:	Students will demonstrate the ability to advocate for personal, family and community health.

STATE STANDARDS:	
10.1. Concepts of Health	
10.1.12.A.	Evaluate factors that impact growth and development during adulthood and late adulthood.
10.1.12.B.	Evaluate factors that impact the body systems and apply protective/preventive strategies.
10.1.12.E.	Identify and analyze factors that influence the prevention and control of health problems.
10.2. Healthful Living	
10.2.12.B.	Assess factors that impact adult health consumer choices.
10.2.12.E.	Analyze the interrelationship between environmental factors and community health.
10.3. Safety and Injury Prevention	
10.3.12.D.	Evaluate the benefits, risks and safety factors associated with self-selected life-long physical activities.
<i>Reading Assessment Anchors:</i>	
R11.A.2 Understand nonfiction appropriate to grade level	
R11.A.2.1 Identify and apply the meaning of vocabulary in nonfiction	
R11.A.2.3 Make inferences, draw conclusions, and make generalizations based on text	

UNIT OBJECTIVES:	CONTENT:
Describe the benefits of each realm of physical fitness.	<ul style="list-style-type: none"> I. <i>Physical Fitness:</i> The ability to carry out daily tasks easily and have enough reserve energy to respond to unexpected demands. <ul style="list-style-type: none"> - Benefits <ul style="list-style-type: none"> o <u>Physical health</u> <ul style="list-style-type: none"> ▪ Reduces chances of acquiring diseases, such as cardiovascular, diabetes, osteoporosis, etc. ▪ Strengthens the heart and improves

Discriminate between the five areas of Health-related fitness.

- circulation. (Heart does more work with less effort.)
- Increased lung capacity
- Maintain a healthy weight
 - Metabolic rate increases during exercise.
 - Vigorous exercise can help reduce body fat.
- Be more active and capable at any age.
- Quicker recuperation from an illness.
- Higher energy levels for longer periods of time.
- Improves posture.
- Improves reaction time by helping you respond to stimuli more quickly.
- Alleviates menstrual cramps.
- Mental health
 - Increases intellectual productivity.
 - Provides relief from stress.
 - Relaxes tense muscles and improves sleep.
 - Releases endorphins, (mood-enhancing chemicals)
 - Helps control depression.
 - Provides a sense of pride and accomplishment.
 - Look and feel better.
 - Contributes to positive self-esteem.
 - Healthy outlet for anger, tension, and frustration.
- Social health
 - Reduces stress that can interfere with good relationships.
 - Builds self-confidence, enabling effectiveness in social situations, such as meeting new people.
 - Opportunity to interact and cooperate with others.
- *Health-related fitness*: having total fitness means achieving a healthy level in each of the five areas.
- Body composition is the ratio of body fat to lean body tissue, including muscle, bone, water, and connective tissue such as ligaments, cartilage and tendons.
 - Caliper/skin fold test measures the layer of fat on the upper arm and calf.
 - Underwater weighing involves measuring a person suspended on a trapeze in the air and then weighing the person under water.
 - Males with 25% or more body fat and females with 30% or more body

Compare and contrast the six types of Skill-related fitness.

Discriminate between aerobic and anaerobic exercise.

fat are at risk of developing cardiovascular disease.

- Tri-Fit System- Integrated health management system that includes everything a teacher needs to perform health and fitness assessments on individuals and groups of students. It can develop personalized health and fitness portfolios and create customized exercise and nutrition programs. It can assess body weight, strength, flexibility, and body composition.
- Flexibility is the ability to move a body part through a full range of motion.
- Muscular strength is the amount of force a muscle can exert.
- Muscular endurance is the ability of the muscles to do difficult physical tasks over a period of time without causing fatigue. i.e. pedometers
- Cardio-respiratory endurance is the ability of the heart, lungs, and blood vessels to send fuel and oxygen to the body's tissues during long periods of vigorous activity. i.e. heart rate monitors

- *Skill-related fitness* includes those aspects of fitness that help you perform well in sports and other physical activities.
 - Agility is the ability to control the body's movements and to change the body's position quickly.
 - Balance is the ability to remain upright either while standing still or moving.
 - Coordination is the ability to use two or more body parts together well, or to use the senses along with the body parts.
 - Speed is the ability to move a distance or complete a body movement in a short period of time.
 - Reaction time is the rate of movement once a person realizes the need to move.
 - Power is the ability to use force with great speed.

II. Exercise and Fitness

- Types

- *Aerobic exercise*: is vigorous activity in which oxygen is continuously taken in for a period of at least 20 minutes. (jogging, swimming, cycling, dancing, brisk walking)
 - Increases cardio-respiratory endurance.
 - Target heart rate is the range in

Incorporate knowledge of exercise principles, training principles and health and skill-related fitness components to create a personal fitness program.

which your heart rate should be during exercise for maximum cardio-respiratory endurance. (60 to 85% of your maximum heart rate)

- o Anaerobic exercise involves intense bursts of activity in which the muscles work so hard that they produce energy without using oxygen. (sprints, calisthenics, weight training, resistance training)
 - Resistance training builds muscle by requiring muscles to resist a force.
 - Isometric exercise is activity that uses muscle tension to improve muscular strength with little or no movement of the body part. (palms of hands together and push)
 - Isotonic exercise is activity that combines muscle contraction with repeated movement. push ups, pull ups, wt. training)
 - Isokinetic exercise is activity that involves resistance through an entire range of motion. (pushing or pulling against a hydraulic lever of certain exercise equipment)

III. Planning a Fitness Program

- Setting goals
 - o Schedule at a convenient and realistic time. Build your program into your daily routine.
 - o Plan ahead and have realistic expectations.
- Select the right activity.
 - o Consider indoors or outdoors
 - terrain
 - temperature
 - preference
 - o Select *activities* (cross-train) that you like.
 - o Consider your level of health. (Do you need to consult a dr.?)
 - o Personal safety (high-crime areas?)
 - o Comprehensive planning to include all five areas of health-related fitness.
- Basics of an exercise program.
 - o For an effective workout, consider the following principles.
 - Overload is working the body harder than it is normally worked. (Increase reps, do more sets)
 - Progression is a gradual increase in overload necessary for achieving higher levels of fitness. (As an

	<p>exercise becomes easier to do, you gradually increase the number of reps or sets.)</p> <ul style="list-style-type: none"> ▪ Specificity principle states that particular exercises and activities improve particular areas of health-related fitness. (Resistance training improves muscular strength and endurance but does little to improve cardio-respiratory fitness.) <p>- In order to derive maximum benefit from an exercise program, you need to include three basic stages.</p> <ul style="list-style-type: none"> o Warm up by raising body temperature with a brief aerobic activity then stretch large muscle groups. (Gets blood to all muscles, increases elasticity and allows for gradual increase in pulse rate.) o Work-out is where you perform the activity at its highest peak. <ul style="list-style-type: none"> ▪ <i>F.I.T.</i> formula <ul style="list-style-type: none"> ➤ Frequency (how often) should be 3 to 4 times a week. ➤ Intensity (how hard). Gradual increase to achieve overload. ➤ Time (how long each session lasts) depends on type of fitness you want to achieve. o Cool-down by gradually decreasing activity. <p>- Monitoring Your Progress</p> <ul style="list-style-type: none"> o Self-check: <ul style="list-style-type: none"> ▪ "Do I feel better?" ▪ Can I go further? ▪ Am I increasing my time? Am I lifting more?" o Exercise journal. o Record resting heart rate periodically. <ul style="list-style-type: none"> ▪ Average resting heart rate (72 to 84 bpm) can decrease 5 to 10 bpm after four weeks.
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ACTIVITIES:

Write the 5 components of health-related fitness on the board. Ask students to define them, circle the one that is most important. Discuss and explain why each one is important to overall fitness.
(Interpersonal Communication, Advocacy)

Students will log one week's worth of activity, then determine if and how they can improve their fitness level. (Activity log, PMSD materials)

ASSESSMENTS:

Create a personal fitness program, relating health and skill related fitness.

Design a fitness center that includes benefits of each realm of physical fitness.

Discriminate between activities that are aerobic and anaerobic.

book) (Decision-Making/Goal-Setting)

Health and skill-related fitness tests.
(PMSD materials book)

Have students write public service announcements promoting aerobic exercise. Share with class.
Advocacy, Interpersonal Communication)

Worksheet: “ % Body Fat Analysis Sheet”
Involves use of skin fold calipers (PMSD planning center) (Accessing Information)

Class will brainstorm a list of exercise “gimmicks”; which could be considered quackery and consider their effects, (cost, emotional, harmful effects, loss of motivation, etc).
(Interpersonal Communication, Accessing Information)

Ask students to state the most important concepts learned in the lesson. Have students work in pairs to construct a mobile that illustrates major ideas in the lesson When completed, have each pair define and explain one concept they have illustrated.
(Interpersonal Communication, Advocacy)

Teacher directed differentiated instructional projects and activities are ongoing and based on student need.

RESOURCES:

Handout “FITNESS – What is it?”
(PMSD materials book)

Health: A Guide to Wellness Text Book
Glencoe (Mrs. O’Merle)

<http://www.glencoe.com/sec/health>

<http://www.fitness.gov/activity/activity.html>

<http://www.shapeup.org/sua>

<http://www.polarusa.com/education/products/trifit/models/trifit600.asp>

REMEDICATION:

- ✧ Extra time as needed.
- ✧ Peer helpers.
- ✧ Teacher assistance.
- ✧ Handouts for notes taken.

ENRICHMENT:

Research and report on a current fitness trend, (Pilates, power yoga, Tae-Bo, spinning, etc), include information on benefits and health risks.

After discussion with newspaper advisor, write an article featuring classroom activities involving fitness assessment. Include pictures.

Create a budget, media campaign, and an employee hiring process for the fitness center project.

Interview a personal trainer or lifeguard about physical fitness skills that they promote in their work place.