

HPE Activities and Assessments Task Force

Middle School Physical Education

LESSON INFORMATION:

Lesson Title: Health Related-Fitness

Objective: The student will complete the battery of *FitnessGram* health-related fitness assessments.

Grade Level: 6,7,8

Grade-Level Expectations:

PA1A8: Use the concepts of health-related and skill-related fitness to connect the benefits each offers to the development of total fitness.

PA1B8: Identify a variety of specific activities design to reduce and manage stress (e.g., aerobics, Pilates, deep breathing, muscle relaxation)

PA1C8: Identify exercise principles of overload, progression, and specificity and how they relate to exercise.

PA1D8: Explain the effects of a sedentary lifestyle on the circulatory, respiratory, muscular, and skeletal systems.

HM2D8: Demonstrate an intermediate level of competence in a variety of physical activities (e.g., gymnastics, aquatics).

Content Standards: HPE2, HPE4, HPE1, HPE5

Process Standards: 1.4, 2.7, 4.5

Time needed to Teach this Lesson/Unit: Incorporated for 50 minutes twice a week throughout the year.

LEARNING TARGETS:

1. Students will analyze their individual results from fitness tests.(DOK 2)
2. Identify those components which did and did not meet the healthy fitness zone. (DOK 1)
3. Relate activities from their lifestyle that contributed to their performance level.(DOK 3)

4. Select activities that need increased participation in order to bring the student into the healthy fitness zone.(DOK 2)
5. Identify which health-related fitness component matches the corresponding fitness assessment.(DOK 1)
6. Students will participate in 5 components from the FitnessGram test. (DOK 1)

LESSON DESIGN:

Name of Activity: PACER Test Practice

Purpose of Activity: To have students practice the PACER test of the [Cooper FitnessGram Test](#).

Activity cues: Pace yourself, no need to sprint

Prerequisites: Students need to have heard the cadence that is on the cassette tape. It will get them used to how long the intervals are.

Materials Needed: PACER cassette tape from the [Cooper Institute](#) (*FitnessGram Test*), cassette player, enough space to set up the 20M course, cones, and batons (optional)

Description of Idea

Have students get into groups of 3 or 4. Split the group and have them facing each other at the distance of 20 meters. Designate which student will start the jog/run (give that person the baton or they can slap hands when they get to their partner). This works like a shuttle run with one student at a time crossing to the other side when they hear the "**beep**" from the PACER Tape. On the next "**beep**" the next student crosses back over. Their goal is to get to the other side before they hear the next "**beep**". Count the number of times students go back and forth as a group. As time goes on the time between beeps gets shorter and shorter. Encourage the team to continue achieving as many levels of the tape as possible (see the *FitnessGram* test for details). When a student does not make it to their partner before the beep comes then it is time to cease the count. They can rest and start again.

DIFFERENTIATED INSTRUCTION

Students can start off with a "speed" walk if they choose, then progress to sliding or skipping and finally jogging.

Start with larger groups and then diminish the team numbers down to 3. Students should be ready to take the test by themselves at that point.

Aerobic Conditioning Circuit

Set Induction

Define specificity. Ask students to state and discuss examples of activities designed to improve aerobic endurance.

Procedure

1. Set up a variety of aerobic conditioning stations for various sports, such as shadow boxing, step, jump rope, football carioca, basketball agility run, free choice, swimming, soccer dribbling, personal conditioning (walk, jog, step), and so on.
2. Use a segmented music tape. Students will participate in each activity for 30 to 45 seconds while the music plays. They rotate to the next station when the music is off.
3. Continue until the students have completed all stations

Scooter Softball

The object of this game is to see if the base runner (on the scooter) can beat the ball home, as it is being thrown around the bases. The base runner does NOT stop on a base.

1. Tape X's on the floor where first base, second base, third base and home plate would be. Place a bowling pin on top of each "X."
2. Divide into 2 teams. One team is the batting team and the other team is in the outfield. Assign positions for pitcher, first baseman, second baseman, third baseman and catcher.
3. The pitcher sits on a scooter, approximately where pitcher's mound would be. The basemen sit in FRONT of the pins, so the base runner (on the scooter) can go BEHIND the pin. That way they do not get in each other's

way when trying to make the play at each base. The catcher sits behind the pin, ready to make the play at home. The outfielder's are on scooters, also. If there are not enough scooters, the extra players can do the crab walk. Rotate positions after each inning.

4. The person that is up, sits or kneels with both knees on the scooter. The pitcher ROLLS the ball to the person that is up. The base runner throws the ball out into the field and rides the scooter around the bases (pins). The outfielders THROW the ball to the first baseman, who catches the ball and knocks down the pin. He/she THROWS the ball to the second baseman who catches the ball and knocks down the pin. Repeat at third base and at home. If all the pins are down before the person on the scooter gets back home, the person is out. If there are any pins standing when the person on the scooter gets home, the run scores.
5. Pins must be knocked down in order, first, second, third and home, even if the ball is closest to another base, other than first base.
6. The fielders must THROW the ball around the bases, not roll the ball. This adds to the excitement when students have a hard time catching the ball. Play 3 outs and then switch sides.

There are other ways of making OUTS:

- 1) All the pins are knocked down IN ORDER before the base runner gets home.
- 2) Catching a fly ball.
- 3) The base runner (on the scooter) knocks down the pin as they are going around the pin.

EQUIPMENT:

Gym scooters, 4 bowling pins, racquetball or softer ball

ASSESSMENT: (directions and how to score or evaluate)

Assessment Rubric

Criteria	5 Points	4 Points	3 Points	2 Points	1 Point
<i>FitnessGram</i> Assessments	Completed 5 assessments	Completed 4 assessments	Completed 3 assessments	Completed 2 assessments	Completed 1 assessment
Relate activities from your lifestyle that contributed to your performance level	Relates activities from your lifestyle for all 5 assessments	Relates activities from your lifestyle for 4 assessments	Relates activities from your lifestyle for 3 assessments	Relates activities from your lifestyle for 2 assessments	Relates activities from your lifestyle for 1 assessment
Identify health-related fitness component to corresponding fitness assessment event	Identifies all 5 components to corresponding fitness assessment events	Identifies 4 components to corresponding fitness assessment events	Identifies 3 components to corresponding fitness assessment events	Identifies 2 components to corresponding fitness assessment events	Identifies 1 component to corresponding fitness assessment events

Scoring: 14 – 15 Points = A

12 – 13 Points = B

10 – 11 Points = C

8 - 9 Points = D

Fitness and Wellness Assessment Worksheet

Name _____

Class _____

Write your assessment event score in the blanks.

Meet Healthy Fitness Zone

1. Aerobic Capacity	_____	Y	N
2. Push up test	_____	Y	N
3. Curl up test	_____	Y	N
4. Sit and Reach test	_____	Y	N
5. Body Mass Index	_____	Y	N

How do your lifestyle choices affect your performance for each event.

	Activity that affected performance	Ways to improve
6-7. Aerobic Capacity	_____	_____
8-9. Push up test	_____	_____
10-11. Curl up test	_____	_____
12-13. Sit and Reach	_____	_____
14-15. Body Mass Index	_____	_____

Match each performance event to its health-related fitness component.

- | | |
|----------------------------|------------------------------|
| _____ 16. Aerobic Capacity | A. Flexibility |
| _____ 17. Push up test | B. Muscle strength/endurance |
| _____ 18. Curl up test | C. Body Composition |
| _____ 19. Sit and Reach | D. Cardiovascular Fitness |
| _____ 20. Body Mass Index | |

Body Mass Index Lesson Plan

Goal Statement:

The student will understand the importance of Body Mass Index.

Objective Statement:

The student will calculate individual BMI compared to other individuals with the same height.

Anticipatory Set: Students use technology tools to process data and report results.

In these 3 to 5 five minutes students will weigh themselves and measure their height. This will be done in small groups and data will be recorded on paper provided. Students will record their own weight and height data.

Learning Activity: Students use tools to enhance learning, increase productivity, and promote creativity.

Lesson Concept: Your BMI should be below 25.

Lesson Cues: Calculation for BMI index.

BMI = [weight (pounds)/height (inches) squared times 703. Show example:

BMI for a woman who is 5'5" tall and weighs 145 lbs would be:

$$[145 / (65 * 65)] * 703 = 24$$

--Percentage over the allotted amount, obesity percentages.

Teacher Modeling: Overweight is defined as a BMI of 25 to 29.9, and obesity is defined as a BMI of 30 or above.

--BMI does not account for location of fat in the body, and a muscular person with a low percentage of body fat may have a high BMI. In consideration of this shortcoming of the BMI, two other factors are evaluated.

1. Waist circumference – excess fat in abdomen is greater health risk than excess fat in the hips and thighs. It crowds the abdominal organs and its proximity to liver means that when metabolized, abdominal fat can raise blood cholesterol levels and lower the body's sensitivity to insulin. Greater than 35 inches for female and 40 inches for males is problematic.
2. Presence of weight-related health problems and risk factors for diseases. These include family health history, heart disease, type 2 diabetes, high blood cholesterol, high blood pressure, cigarette smoking, osteoarthritis, gallstones or sleep apnea.

Student Activity:

Students will calculate their BMI index using the formula provided. They will work on the computer calculator and record their data on the excel sheet provided for their groups. They will fill this scorecard out. Students will determine their data and where they fall.

Closure:

Students use technology to locate, evaluate and collect information from a variety of sources.

Teacher will review the calculation procedures to make sure that each student has correctly figured his/her BMI.

Evaluation: Students will write a take home essay determining why you think you have a particular BMI index. If your score is under or over the normal amount, explain why.

Re-teach Section: Provide a BMI index chart to all students at the beginning of class. One strategy would be to have a discussion asking questions prompting students to think healthy thoughts. Such as: Why do think obesity is on the rise? Why do people have different body shapes? Are there actually categories of weight classes?

Equipment needed: tape measure for measurement of height and body circumference, scales for measuring weight, calculator, paper and pencil.

FLEXIBILITY LESSON PLAN

Teach your students about the flexibility assessment. Talk about the F.I.T. Principle and how it applies to flexibility.

"F" Frequency: stretch daily or at least three days per week.

"I" Intensity-stretch muscles beyond their full range of motion.

"T" Time-beginners: hold the stretch for 15-20 seconds, Advanced does three sets of 10-12 repetitions.

1. Set up seven stations with task cards and information about the muscle or muscle fiber at each station. Each student completes their task card by answering the questions given at the stations. Students should read and complete the task at each station rotating through each of the stations. The second time through the circuit, have your students focus on stretching the primary muscle. Reinforce the fact that flexibility is one of the easiest fitness assessments to improve. Remember that you should always stretch all muscle groups beyond their full range of motion for the greatest benefit.

STATIONS:

1. Biceps

Stretch: Hold your arm out in front of you and grasp the corner of the gym at shoulder height. Turn your body away from the corner. Feel the stretch in the Biceps. Switch arms.

Task: For you to complete any movement, you must use your muscles. Muscles are attached to your bones and move the parts of your body. Movement occurs when a muscle pulls on a bone to which it is attached. Using your biceps moves what part of your body and how?

_____ (forearm in an upward movement)

2. Triceps

Stretch: Lift your arm and place your hand on the middle of your back. Your elbow should be facing upward towards the ceiling. Pull on your elbow to feel the stretch of the triceps muscle. Switch arms.

Task: When your muscle contracts, it shortens, and when a muscle relaxes, it lengthens. Muscles are placed in pairs.

What is the pair to the Triceps muscle? _____(biceps)

3. **Latissimus Dorsi**

Stretch: Get on your hands and knees and round your back like you might see a kitten do when it is stretching after a nap.

Task: What causes your bones to move? _____(when one muscle contracts and the other relaxes.)

4. **Pectorals**

Stretch: Have a partner hold your wrists and slowly bring your hands together behind you until you say "hold".

Task: There are 600 different muscles in your body. You must exercise your muscles for them to be healthy and strong. Name an exercise that could be used to develop strength for the Pectorals _____(bench press)

5. **Quadriceps**

Stretch: While standing, hold one ankle in your hand pointing your knee to the ground.

Task: There are three important aspects of musculoskeletal fitness. They are muscular strength, muscular endurance, and what? ___(flexibility)___

6. **Hamstrings**

Stretch: While sitting on the floor with your legs in front of you reach for your toes. Go as far as you can until you start to feel the hamstrings pull, and hold.

Task: Read this while you stretch.

Without good flexibility, certain disorders such as bad posture, back problems and injuries to muscles and ligaments can occur. This is a very important assessment because if your hamstring muscles are tight and not stretched properly, your pelvic bones are tilted improperly. This may cause low back pain. Did you know that lower back pain is the most common reason adults miss work in our country?

7. **Abdominal**

Stretch: Lay on the large exercise ball with your abdominal facing up. Roll on the ball feeling the stretch in your abdominal.

Task: What three factors affect flexibility? ___(age, activity level and genetics)___

8. **Stretch-Perform the flexibility assessment**

Task: Turn in your task sheet. The second time you go around the circuit be sure to focus on stretching really well. When you return, you should see a slight improvement in your flexibility.

My Flexibility Goal:

Technology and Materials Needed:

Fitnessgram CD, compact disc player, scooters, heart-rate monitors

Resources:

Fitness Gram Test Administration Manuel, www.naspeinfo.org,
www.pecentral.org, Physical Best Activity Guide Secondary Level,
<http://pazz.tripod.com/lesson.html> , www.teenhealthandwellness.com

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