

## LESSON 6: FITNESSGRAM TESTING

### Grade-Level Outcomes

#### Primary Outcome

**Assessment & program planning:** Designs and implements a program of remediation for any areas of weakness based on the results of health-related fitness assessment. (S3.M15.6)

#### Embedded Outcomes

**Working with others:** Accepts differences among classmates in physical development, maturation and varying skill levels by providing encouragement and positive feedback. (S4.M4.6)

**Safety:** Uses physical activity and fitness equipment appropriately and safely, *with the teacher's guidance*. (S4.M7.6)

### Lesson Objectives

The learner will assess her health-related fitness using a scientifically based fitness assessment such as Fitnessgram.

Note: The instructional tasks will be spread out over a few days. The length of this lesson plan will depend on class size, students' familiarity with the assessments, and how deeply you want to go into the content involved in each assessment.

### Equipment and Materials

- Fitnessgram sound system
- Cadences for PACER, curl-up test, push-up test (on CD, iPod, or smartphone)
- Sit-and-reach device (several will save time)
- Modified pull-up bars
- Paperwork for collection of scores (printed on card stock helps)
- Cones for PACER
- Stopwatches for mile run/walk
- Measuring tape or trundle wheel to measure distance of PACER
- Curl-up strips
- Fitnessgram software (for generating student reports)
- Task cards provided by Fitnessgram (includes protocol, look-up tables, and form corrections)
- Stadiometer (to measure height)
- Scale

Other scientifically based health-related fitness assessments include Eurofit (1993).

### Introduction

*This week we will be focusing on assessment of your health-related fitness. It is anticipated that fitness testing will take a few days. It should go smoothly since we have practiced the various Fitnessgram assessments. We will use the results of the Fitnessgram to identify areas of fitness that you need to work on. Your Fitnessgram report and scores should be part of your end-of-year portfolio for you to reflect on them.*

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**EMBEDDED OUTCOME: S4.M7.6.** Students will be using fitness equipment throughout the lesson. Make sure students know the proper and improper ways of using the fitness equipment.

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## Instructional Task: PACER Assessment

### ■ PRACTICE TASK

Administer the PACER test for measurement of aerobic capacity. (Decide on 15- or 20-meter distance.) Review protocol briefly.

The following are common procedure points that need to be stressed:

- Single beep means end of lap; turn around and run back to the other line.
- Triple beep means that the test will speed up; turn around and run back to the other line.
- Foot must touch the end line by the time the beep sounds for each lap.
- On first miss, turn around where you are and run to the other line; try to get back on pace.
- On second miss, move to the side and cool down by walking. End of test.
- Partner should note lap number and record the score.

Remind students that the PACER has a built in warm-up.

Go over the academic vocabulary involved with PACER:

**P**rogressive

**A**erobic

**C**ardiovascular

**E**ndurance

**R**un

Partners record scores.

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**EMBEDDED OUTCOME: S4.M4.6.** This is a good opportunity to teach students about the importance of accepting and supporting each other, since they will be pushing themselves and recording scores for one another.

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### Extension

Students look up how their aerobic capacity compares to the Healthy Fitness Zone for the Fitnessgram assessment.

### Student Choices/Differentiation

Students choose a partner to work with and whether to go first or second.

### What to Look For

- Students stay in their lanes.
- Students are following test protocols.

## Instructional Task: Push-Up Assessment

### ■ PRACTICE TASK

Review protocol briefly.

Remind students that the push-up assessment measures upper-body strength and endurance. Having a strong upper body can be an indicator of healthy bone density.

Partners record scores.

### Extension

Students look up how their push-up scores compare to the Healthy Fitness Zone for the Fitnessgram assessment.

### Student Choices/Differentiation

Students choose a partner to work with and whether to go first or second.

## What to Look For

- Back is flat.
- Elbows come down to 90 degrees.
- Students are following the test cadence.

## Instructional Task: Curl-Up Assessment

### ■ PRACTICE TASK

Review protocol briefly. The test is stopped on the second form correction.

Remind students that the curl-up assessment is a measure of abdominal strength and endurance. Strong abdominal muscles help prevent low back problems.

Partners record scores.

### Extension

Students look up how their curl-up scores compare to the Healthy Fitness Zone for the Fitnessgram assessment.

### Student Choices/Differentiation

Students choose a partner to work with and whether to go first or second.

## What to Look For

- Head must return to the ground.
- Fingers go completely across the curl-up strip.
- Heels must stay on the ground.
- Students are following the test cadence.
- Stop test on second form correction.

Based on Meredith and Welk 2010.

## Instructional Task: Shoulder Stretch

### ■ PRACTICE TASK

Review protocol briefly.

1. With right hand, reach up and over shoulder and down back as if pulling up a zipper. Reach up with left hand and touch fingertips.
2. Fingers touch.
3. Switch sides.

Source: Fitnessgram task card.

Remind students that flexibility at the shoulder joint helps prevent shoulder injuries.

Test both sides.

Partners record scores.

### Extension

Students look up how their shoulder stretch scores compare to the Healthy Fitness Zone for the Fitnessgram assessment.

### Student Choices/Differentiation

Students choose a partner to work with and whether to go first or second.

## What to Look For

Students are performing the task correctly.

## Instructional Task: Sit and Reach

### ■ PRACTICE TASK

Review protocol briefly.

Remind students that good flexibility in the lower back and hamstring muscles, as measured by the sit and reach, helps prevent low back problems.

Partners record scores.

### Extension

Students look up how their sit-and-reach scores compare to the Healthy Fitness Zone for the Fitnessgram assessment.

### Student Choices/Differentiation

Students choose a partner to work with and whether to go first or second.

## What to Look For

- Are students stretching slowly and gently or bouncing to get the longest stretch?
- Are they using the box correctly?

## Instructional Task: Modified Pull-Up

### ■ PRACTICE TASK

Review protocol briefly. The test is stopped on the second form correction.

Remind students that this test is a measure of upper-body strength and endurance.

Partners record scores.

### Extension

Students look up how their modified pull-up scores compare to the Healthy Fitness Zone for the Fitnessgram assessment.

### Student Choices/Differentiation

Students choose a partner to work with and whether to go first or second.

## What to Look For

- Shoulders are directly under the bar.
- Palms are facing away.
- Only heels are touching the floor.
- Chest touches the elastic band.
- Students return to starting position with elbows extended.
- Body remains straight.
- Stop test on 2nd form correction.

Source: Fitnessgram task card.

## Instructional Task: Body Mass Index

### ■ PRACTICE TASK

Note: Height and weight should be measured by the teacher and not by students. Safeguards need to be established to protect student privacy.

The class should be engaged in an activity in which you can pull out small groups of students so that one student can be measured for height and weight while the rest of the small group await their turn (with shoes removed and ready to be measured). Keep the scale and stadiometer behind a screen to ensure student privacy while you keep an eye on the rest of the class.

Activities to keep the rest of the class engaged can be fitness based (e.g., jumping rope, walking around a track) or skills based (e.g., striking, passing), or students can start on their homework.

## Extension

Use skinfold calipers in place of body mass index, depending on school district policy and your training.

## What to Look For

- There is a discrepancy between the way the CDC recommends rounding height and weight and the way that Fitnessgram handles the data.
- If using Fitnessgram, round down on height to the nearest inch.
- Height needs to be measured accurately, since it is squared in the BMI formula.
- When measuring height, the Frankfurt plane needs to be aligned so that the head is level. The head may pull away from the stadiometer for this measurement.

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## Formal and Informal Assessments

- Homework assignment on academic vocabulary
- Fitnessgram is a formal assessment, but it is not linked to a standard and should not be converted to a grade.

## Closure

- Did you feel challenged by any of the fitness assessments today? If so, which ones and why?
- Review how you did on each test, and think about which areas you might need to work on.

## Reflection

Browse through student work that was completed to see where misunderstandings occurred.

## Homework

Provide students with sample Fitnessgram reports that have been copied in a way that there is no name on the report.

Students read the report and underline any vocabulary that they do not understand.

Students circle any numbers on the report that they do not understand.

Students analyze areas of strength and weakness for the hypothetical student.

Students write down which areas they need to work on and select one for remediation purposes.

## Resources

Corbin, C., et al. (2014). Youth physical fitness: Ten key concepts. *Journal of Physical Recreation and Dance*, 85(2), 24-31.

Council of Europe, Committee for the Development of Sport. (1993). *Handbook for the Eurofit tests of physical fitness*. 2nd ed. Strasbourg: Council of Europe Publishing.

Institute of Medicine. (2012). *Fitness measures and health outcomes in youth*. Washington: National Academies of Sciences.

Melograno, V.J. (2000). *Portfolio assessment for k-12 physical education*. Reston, VA: National Association for Sport and Physical Education.

Nihisher, A.J., et al. (2007). Body mass index measurement in schools. *Journal of School Health*, 77(10), 651-671.

The Cooper Institute. (2013). Meredith, M.D., & Welk, G.J. (Eds.). *Fitnessgram & Activitygram test administration manual*. Updated 4th ed. Champaign, IL: Human Kinetics.