

Fitness Assessment Information Guide

What are fitness assessments?

Fitness assessments are a series of tests that measures and monitors students' physical fitness level. The series of tests assess the five components of physical fitness that make up total fitness: cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

Why do fitness testing?

Fitness testing is an effective strategy to monitor and assess students' fitness levels. It can also help students understand how healthy they are by learning about the five components of fitness and how to set goals to improve their health-related fitness.

Who does fitness assessment?

According to SHAPE America's Appropriate and Inappropriate Practices Related to Fitness Testing, students in grades 3 and below begin to learn form and protocols but not participate in fitness testing. Also, individuals respond differently, both physically and psychologically, to the same training protocols (Astorino & Schubert, 2014; Rankinen & Bouchard, 2011; Swift, et al., 2013). Therefore, fitness testing must be individualized to account for individual student differences and should never be used to evaluate teacher effectiveness or to grade students.

How to do fitness assessments?

There are video demonstrations of tests under each of the five components of fitness headings: Cardiovascular Endurance, Muscular Strength, Muscular Endurance, Flexibility and Body Composition. Now, take a closer look the components of fitness and watch the demonstration video for each test.

A Closer Look: Cardiovascular Endurance

Cardiovascular endurance is the ability of the heart and lungs to work together to provide the needed oxygen and fuel to the body during sustained workloads. Examples would be jogging, cycling and swimming. A multi-stage fitness test or a one-mile run are used most often to assess cardiovascular endurance.

[Cardiovascular Endurance Assessment Demonstration Video](#)

A Closer Look: Muscular Strength

Muscular strength is the amount of force a muscle can produce. Examples would be the bench press, leg press or bicep curl. The push up test is most often used to assess muscular strength.

[Push Up Demonstration Video](#)

A Closer Look: Muscular Endurance

Muscular endurance is the ability of the muscles to perform continuous without fatiguing. Examples would be cycling, step machines and elliptical machines. The sit up (aka curl up) test is most often used to test muscular endurance.

[Curl Up Demonstration Video](#)

A Closer Look: Flexibility

Flexibility is the ability of each joint to move through the available range of motion for a specific joint. Examples would be stretching individual muscles or the ability to perform certain functional movements such as the lunge. The sit and reach test is most often used to test flexibility.

[Sit and Reach Demonstration Video](#)

[Trunk Lift Demonstration Video](#)

A Closer Look: Body Composition

Body composition is the amount of fat mass compared to lean muscle mass, bone and organs. This can be measured using student's height and weight. According to SHAPE America's Appropriate and Inappropriate Practices Related to Fitness Testing position paper, assessing body composition is one of the most sensitive areas of fitness testing. Body composition is the amount of lean body mass compared to body fat. Body mass index (BMI) is a popular tool for screening students' body composition because it is simple and non-invasive.

It involves entering a student's height and weight into a formula that calculates his or her BMI.

It's important to note that BMI, like the other test items, is not a tool for diagnosing health risk. In a school setting, calculating BMI is comparable to a vision screening. The vision screener conducts a simple vision test with each student and alerts parents of any warning signs and recommendation to follow up with the family's eye care provider, when appropriate. The vision screener does not diagnose any eye-related conditions or prescribe eye glasses. Similarly, if a student's BMI score signals a warning (too high or too low), the school informs the student's family, with a suggestion to follow up with the family's physician for further evaluation.

BMI testing and measuring body composition is particularly sensitive in nature, so educators must take extra precaution when collecting that information. Educators must teach students why it's important to measure body composition and must provide them with as much privacy as possible to help them feel safe and comfortable while their height and weight is being collected and recorded.

[Body Composition Demonstration Video](#)

Resource Links

[Cardiovascular Endurance Assessment Individual Scorecard](#)

[SHAPE America's Appropriate and Inappropriate Practices Related to Fitness Testing](#)

[SHAPE America's Instructional Framework for Fitness Education In Physical Education](#)

Height & Weight:

- Try to **weigh kids in the same type of clothing from pre to post testing**. Be aware of added layers in the winter.
- **Shoes should be removed** before measurement of height and weight.
- Be sure to position the Health-O-Meter away from other students **or use a folder to obstruct the view** of others so no one can see student's weight.

Pacer:

- Pacer test is scored by counting the last lap completed.
- It is a **requirement to use a Cadence to count laps**. The cadence can be found on YouTube.
- The distance must be 20 meters. 15 meters is accepted for smaller spaces, but scores must account for that distance.

Push-Ups:

- Watch for form corrections, which include:
 - Stopping to rest or not maintaining a rhythmic pace.
 - Not achieving a 90° angle with the elbow on each repetition.
 - Not maintaining correct body position with a straight back.
 - not extending arms fully.
 - Any body part touches the floor other than the hands and feet.
- Follow correct protocol for assessment:
 - **Use recorded cadence to count and set rhythm for push-ups**. The push-up cadence can be found on YouTube.
 - Students should be paired to watch for form corrections, but teacher must watch the group for form corrections.
- **Count the first incorrect push-up but not the second**. This means every student will have at least 1 as a score.

Sit and Reach:

- **Make sure students do not wear restrictive clothing**; i.e., tight jacket or jeans.
- **Shoes should be removed** before measurement.
- Allow students to **stretch and warm-up before testing**.
- The **maximum score is 12 inches**.
- Follow correct protocol for sit & reach assessment:
 - The bent knee moves to the side, but the sole of the foot must remain on the floor.
 - The knee of the extended leg should remain straight and the trial should be repeated if the knee bends.
 - Keep the back straight and the head up during the forward movement.

- **Hands should reach forward evenly**, and the trial should be repeated if the hands reach unevenly. **Four reaches are permitted if the maximum score is not met**.
- Hips must remain square to the box.

Curl Ups:

- The **maximum score is 75**.
- Watch for form corrections:
 - Heels must remain in contact with mat.
 - Head must return to mat on each repetition.
 - **Movement should be continuous with the cadence**. Pauses and rest periods are not allowed. The curl up cadence can be found on YouTube.
 - **Fingertips must touch the far side of the measuring strip**.
- Follow correct protocol for curl-up assessment:
 - Make sure to **use the correct measuring strip** (3 in. for 5 to 9 year olds; 4.5 in. for older students).
 - **Measuring strip should be placed so that fingertips are just resting on the nearest edge of strip**.
 - **Use recorded cadence to count and set rhythm for curl-ups**.
 - Students should be paired to watch for form corrections, but teacher must watch the group for form corrections.

Trunk Lift:

- The **maximum score is 12 inches**.
- Follow correct protocol for Trunk Lift assessment:
 - The student lifts the upper body off the floor in a slow and controlled manner.
 - The **head should be maintained in a neutral alignment with the spine**.
 - The score is determined by the **distance from the floor to the student's chin**.
 - Place a token under student's chin. As the student lifts up, his/her eyes must stay **focused on the token**.
 - Ruler or yard stick must be held with largest number pointing to the sky and it must be held vertically (not at an angle).

Important Tips:

- Be consistent when recording pre and post testing scores.
- Follow correct protocol for all assessments.
- Practice all assessments before pre and post testing.
- Allow students to warm-up for all assessments.
- Encourage students to improve and set goals for themselves.

