

FITNESSGRAM

Test Administration

The *FITNESSGRAM* assessment measures three components of physical fitness which have been identified as being important because of their relationship to overall health and optimal function. The three components are aerobic capacity; body composition; and muscular strength, endurance, and flexibility. Several test options are provided for most areas, with one test item being recommended. This chapter describes procedures for administering and scoring test items.

Fitness assessments are important because of the need to reinforce for children the importance of developing lifetime habits of regular physical activity. While fitness is important, it cannot be maintained unless children are physically active.

Safety Considerations

The test items used in *FITNESSGRAM* have been administered to millions of students and have proven to be very safe. The prudent teacher, however, will recognize that with any strenuous physical activity there is always the possibility that incidents may occur.

Prior to administering any test items, it is vital that you be aware of the potential health problems of all students in your classes. It is possible that a student could have a congenital heart condition that may require special consideration during the administration of an aerobic capacity measure or *other* test items. Maximizing the safety of all students should be a primary objective.

Testing Area 1: AEROBIC CAPACITY

Aerobic capacity is perhaps the most important area of any fitness program. Research clearly indicates that acceptable levels of aerobic capacity are associated with a reduced risk of high blood pressure, coronary heart disease, obesity, diabetes, some forms of cancer and other health problems in adults. Aerobic capacity relative to body weight is considered to be the best indicator of a person's overall cardio-respiratory capacity.

One-Mile Run

Test Objective: The objective is to run a mile at the fastest pace possible. If a student cannot run the total distance, walking is permitted.

Equipment/Facilities: A flat running course, stopwatch, pencil, and score sheets are required. The course may be a track or any other measured area. The course may be measured using a tape measure or cross country wheel.

Test Instructions: Students begin on the signal "Ready, Start." As they cross the finish line, elapsed time should be called to the participants (or their partners). It is possible to test 15 to 20 students at one time by dividing the group and

assigning partners. While one group runs, partners count laps and make note of finish time.

Scoring: The one-mile run is scored in minutes and seconds. A score of 99 min and 99 s indicates that the student could not finish the distance.

Suggestions for Test Administration:

- Preparation for the test should include instruction about pacing and practice in pacing. Without instruction, students will usually run too fast early in the test and then be forced to walk in the latter stages.
- Results are generally better if the student can maintain a constant pace during most of the test.
- Walking is definitely permitted. Although the objective is to cover the distance in the best possible time, students who must walk should not be made to feel inferior. Encourage students who walk to walk at a fast pace, rather than stroll. Attainment of the Healthy Fitness Zone is the important factor.
- Students should always warm up prior to taking the test. It is also important that students cool down by continuing to walk for several minutes after completing the distance.
- Administration of the test under conditions of unusually high temperature and/or humidity or when the wind is strong should be avoided as these elements may be unsafe or lead to an invalid estimate of aerobic capacity.
- Counting laps completed and accurately recording the run time can be a problem when a relatively small course is utilized with younger children. Many techniques are acceptable. Pair the students and have the resting partner count laps and record time for the runner. Older students or parents may be asked to assist in recording results for younger students.

Testing Area 2: ABDOMINAL STRENGTH AND ENDURANCE

Curl-Up

Test Objective: To complete as many curl-ups as possible up to a maximum of 75 at a specified pace.

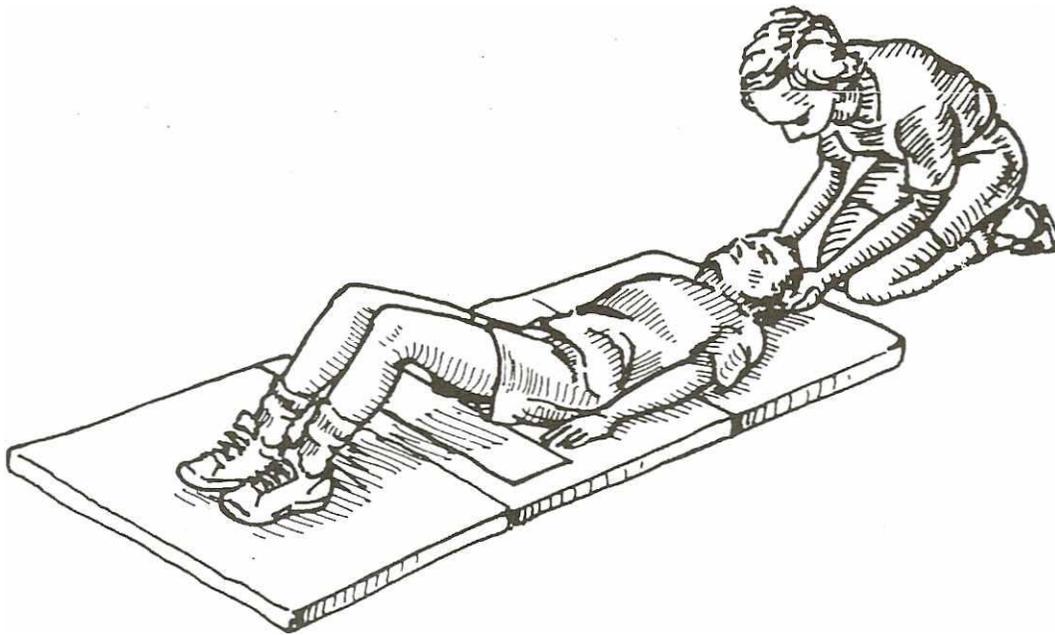
Equipment/Facilities: Gym mats and a measuring strip for every two students are needed. The measuring strip may be made of cardboard, rubber, smooth wood, or any similar thin flat material should be 30 to 33 inches long. Two widths of measuring strip may be needed. The narrower strip should be 3 in. wide and is used to test 5 to 9 year-olds; for older students the strip should be 4 ½ in. wide. Other methods of measuring distance such as using tape strips and pencils are also permitted.

Test Instructions: Allow students to select a partner. Partner A will perform the curl-ups while partner B counts and watches for form errors.

Partner A lies in a supine position on the mat, knees bent at an angle of approximately 140° , feet flat on the floor, legs slightly apart, arms straight and parallel to the trunk with palms of hands resting on the mat. The fingers are stretched out and the head is in contact with the mat.

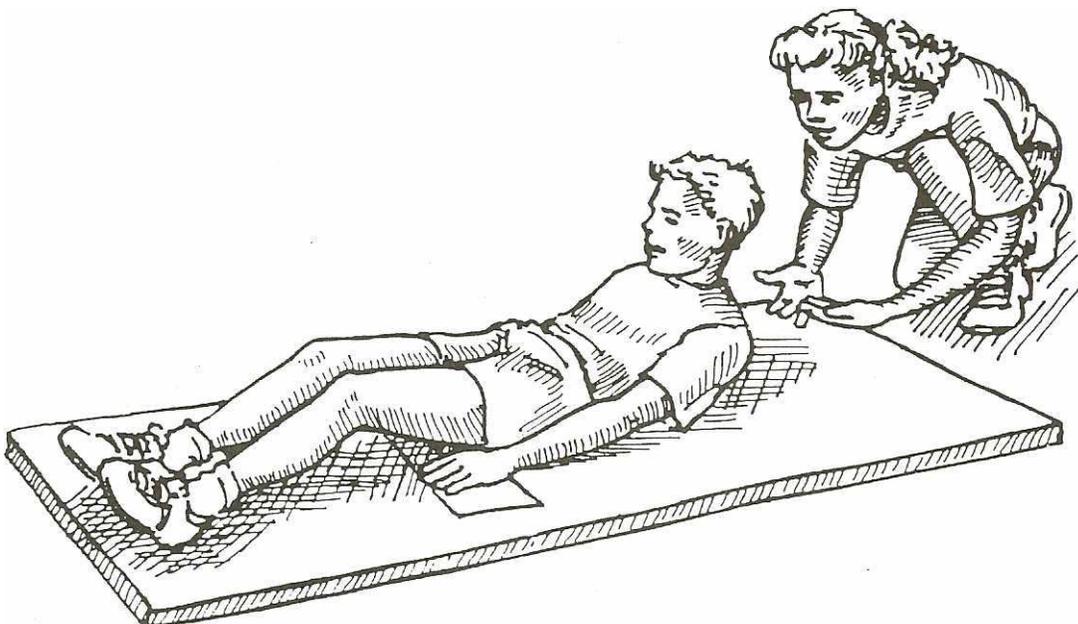
After partner A has assumed the correct position on the mat, partner B places a measuring strip on the mat under the legs so that fingertips are just resting on the nearest edge of the measuring strip (figure 4.12). Partner B then kneels down at partner A's head in a position to count curl-ups and watch for form breaks. Partner B may place

Figure 4.12 Starting position for the curl-up test.



hands under partner A's head or a piece of paper may be put on the mat instead to help partner B see that partner A's head touched down on each repetition (figure 4.13). Watch for the paper to crinkle each time partner A touches it with her head.

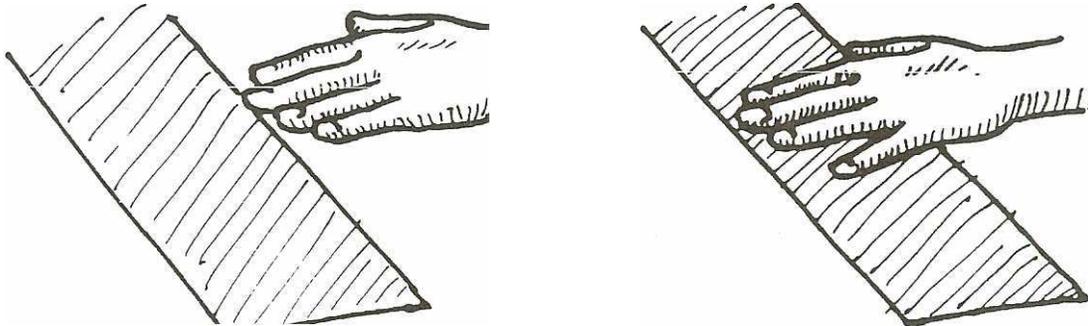
Figure 4.13 Position of student in the "up" position for the curl-up test.



Keeping heels in contact with the mat partner A curls up slowly, sliding fingers across the measuring strip until fingertips reach the other side (figure 4.14A & b), then curls back down until his head touches the mat. Movement should be slow and gauged to the specified cadence of about 20 curl-ups per minute (one curl every 3 seconds).

The teacher should call a cadence or use a pre-recorded cadence. Partner A continues without pausing until he can no longer continue or has completed 75 curl-ups.

When to Stop: Students are stopped after completing 75 curl-ups or when the second form correction is made.



Figures 4.14a and 4.14b Close-up of fingertips sliding from one side of the measuring strip to the other

Scoring: The score is the number of curl-ups performed. Count should be made when the student's head returns to the mat. For ease in administration, it is permissible to count the first incorrect curl-up. It is important to be consistent with all of the students and classes.

Form Corrections:

- Heels must remain in contact with the mat.
- Head must return to the mat on each repetition.
- Pauses & rest periods are not allowed. The movement should be continuous & with the cadence.
- Fingertips should touch the far side of the measuring strip.

Suggestions for Test Administration:

- The student being tested should reposition if the body moves so that the head does not contact the mat at the appropriate spot or the measuring strip is out of position.
- Movement should start with a flattening of the lower back followed by a slow curling of the upper spine.
- The hands should slide across the measuring strip until the fingertips reach the opposite side and then return to the supine position. The movement is completed when the back of the head touches the partner's hand.
- The cadence will encourage a steady, continuous movement done in the correct form.
- Students should not "reach" with their arms and hands but simply let the arms passively move along the floor in response to the action of the trunk and shoulders. Any jerking or reaching motion will cause the students to constantly move out of position.

Testing Area 3: TRUNK EXTENSOR STRENGTH AND FLEXIBILITY

Trunk Lift

It is important that attention be given to performance technique during this test. The movement should be performed in a slow and controlled manner. The maximum score on the test is 12 inches. While some flexibility is important, it is not advisable to encourage hyperextension.

Test Objective: To lift the upper body off the floor using the muscles of the back and hold the position to allow for the measurement.

Equipment/Facilities: Gym mats and a yardstick or 15 in. ruler are required to administer this test. It is helpful to mark the 6, 9, and 12 in. marks with colored tape.

Test Description: The student being tested lies on the mat in a prone position (face down). Toes are pointed and hands are placed under the thighs. Place a coin or other marker on the floor in line with the student's eyes. During the movement, the student's focus should not move from the coin or marker. The student lifts the upper body off the floor, in a very slow and controlled manner, to a maximum height of 12 in. (figures 4.15, 4.16, and 4.17). The position is held long enough to allow the tester to place the ruler on the floor in front of the student and determine the distance from the floor to the student's chin. Once the measurement has been made the student returns to the starting position in a controlled manner. Allow two trials, recording the highest score.

Scoring: The score is recorded to the nearest inch. Distances above 12 in. should be recorded as 12 in.

Suggestions for Test Administration:

- Do not allow students to do ballistic, bounding movements.
- Do not encourage students to raise higher than 12 in. The Healthy Fitness Zone ends at 12 in., and scores beyond 12 in. will not accepted. Excessive arching of the back may cause compression of the discs.
- Maintaining focus on the spot on the floor should assist in maintaining the head in a neutral position.

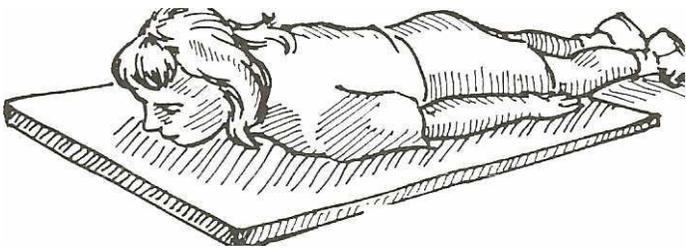


Figure 4.15 Starting position for the trunk lift.

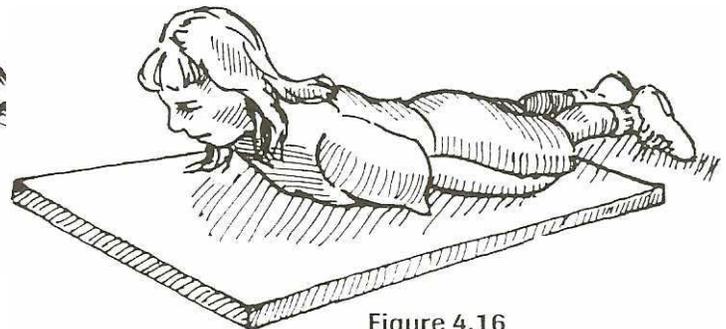
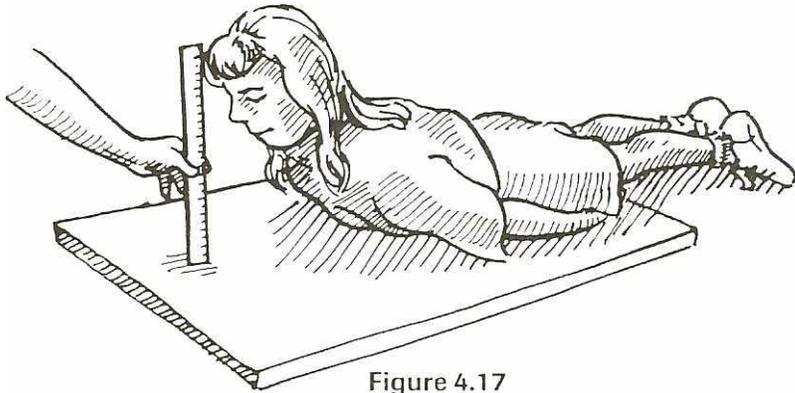


Figure 4.16

Student In the "up" position for the trunk test.



Measurement of trunk lift.

Figure 4.17

Testing Area 4: MUSCLE STRENGTH, ENDURANCE, AND FLEXIBILITY

Flexed Arm Hang

Test Objective: The objective of the flexed arm hang is to hang with the chin above the bar as long as possible.

Equipment/Facilities: A horizontal bar, chair, and stopwatch are required to administer this test.

Test Instructions: The student grasps the bar with an overhand grip (palms facing away). With the assistance of one or more spotters, the student raises his body off the floor to a position where his chin is above the bar, elbows are flexed, and chest is close to the bar (figures 4.24 and 4.25). A stopwatch is started as soon as the student takes this position. The position is held as long as possible. The watch is stopped when one of the following occurs: the student's chin touches the bar, his head tilts backward to keep his chin above the bar, or his chin falls below the level of the bar.

When to Stop: Students are stopped when the chin drops below the bar or when the second form correction is made.

Scoring: The score is the number of seconds the student is able to maintain the correct hanging position.

Suggestions for Test Administration:

- The body must not swing during the test. If the student starts to swing, the teacher or assistant should hold an extended arm across the front of the thighs to prevent the swinging motion.
- Only one trial is permitted unless the teacher believes that the pupil has not had a fair opportunity to perform.

Figure 4.24 Starting position for the flexed arm hang test.

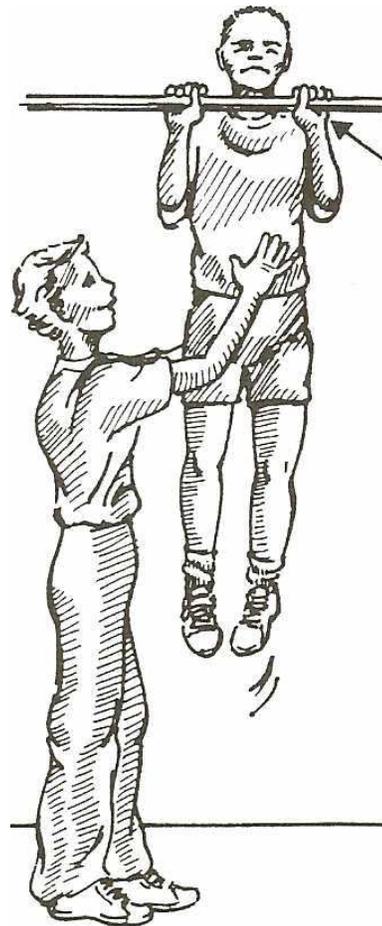
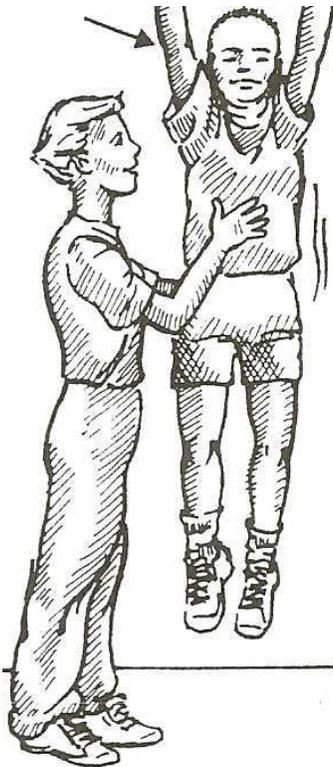


Figure 4.25 Student in the "up" position for the flexed arm hang test.

Shoulder Stretch

The shoulder stretch is a simple test of upper body flexibility. If used alternately with the back saver sit and reach, it may be useful in educating students that flexibility is important in all areas of the body, not just the hamstring muscles.

Test Objective: To be able to touch the fingertips together behind the back by reaching over the shoulder and under the elbow,

Equipment/Facilities: No equipment is necessary to complete this test item.

Test Description: Allow students to select a partner. The partner judges ability to complete the stretch. To test the right shoulder, the student reaches with her right hand over her right shoulder and down the back as if to pull up a zipper. At the same time she places her left hand behind her back and reaches up, trying to touch the fingers of the right hand (figure 4.28). Her partner observes whether the fingers touch.

To test the left shoulder, the student reaches with her left hand over his left shoulder and down the back as if to pull up a zipper. At the same time she places his right hand behind his back and reaches up, trying to touch the fingers of the left hand (figure 4.29). Her partner notes whether her fingers touch.

Scoring: If the student is able to touch her fingers with her right hand over her shoulder, a "Y" is recorded for the right side; if not, an "N" is recorded, If the student is able to touch her fingers with her left hand over the shoulder, a "Y" is recorded for the left side; otherwise an "N" is recorded,



Figure 4.29 Shoulder stretch on the left side.



Figure 4.2B Shoulder stretch on the right Side.