Chapter 2

The Healthy Child

# Summary

A truly healthy child engages in daily moderate to vigorous physical activity (MVPA), is provided with and consumes sound nutrition, and achieves and maintains a health-enhancing level of physical fitness. Therefore, students’ health can be greatly affected by a comprehensive school physical education program. This chapter examines three interacting factors that contribute to children’s health: nutrition education, physical activity, and physical fitness.

# Key Objectives

* Discussing the relationship between physical activity and children’s health
* Defining the components of health-related fitness
* Explaining fitness education from a developmental perspective
* Describing developmentally appropriate practices in fitness education and fitness assessment
* Explaining the importance of good nutrition during childhood

# Big Ideas

* Low levels of physical activity lead to obesity and debilitating health conditions, whereas an appropriate level of physical activity during childhood is critical for growth processes in the brain, in the nerves, in bone and muscle, and in other body components. Promoting student health and physical activity enhances students’ readiness for learning and increases student achievement.
* The U.S. Department of Health and Human Services published Physical Activity Guidelines for Americans in 2008. These guidelines advise that children and adolescents (aged 6 to 17) should engage in one hour (60 minutes) or more of physical activity per day in order to experience substantial health benefits.
* The components of health-related fitness are muscular endurance, muscular strength, cardiorespiratory endurance, flexibility, and body composition. When integrating fitness into a developmental physical education lesson, teachers must keep in mind the unique developmental characteristics of children. Verbal explanations must be based on children’s stage of cognition, and fitness activities must take into account children’s stage of motor development and level of motor skill learning.
* Guidelines for developmentally appropriate practice suggest that fitness should be part of an ongoing program of physical education during which students are physically prepared in each fitness component so that they can safely complete assessments. Fitness education must be fun (i.e., age appropriate), nonthreatening, and progressive; it must also promote self-improvement.

# Part 1: Comparing Movement Activities That Highlight Fitness Development

Read the following fitness activities, one for K-2 and one for grades 3 through 5. Using the developmental implications addressed in chapter 2, describe how and why the K-2 activity differs from the grade 3-5 activity.

## K-2 Fitness Activity

**Standard 3 essential content:** Recognize the effects of MVPA on the body.

**Learning goal:** Recognize the difference in breathing rates after participating in activities of different intensity.

**Task:** The physical education teacher explains that the purpose of the task is for students to recognize the difference in their breathing rates after participating in activities of different intensity. The teacher brings children’s attention to three groupings of smiley faces displayed on a wall and explains that one smiley face indicates breathing normally, two indicate breathing a little harder and faster, and three indicate breathing very hard and fast. Next, the teacher checks for understanding by saying, “Right now, while you are seated, hold up the number of fingers that tells me how hard you are breathing.” Then the teacher engages the children in the cone travel activity, in which they run from cone to cone according to the numbers in their home telephone number. Afterward, the teacher again prompts the children to hold up the number of fingers that tells how hard they are breathing. Children then repeat the phone number activity, running from cone to cone three more times, and once again hold up the number of fingers that tells how hard they are breathing.

**Environment:** Several numbered cones are positioned randomly in an outdoor space. The cones are several yards apart. Children begin at the first number of their telephone number (excluding area code).

**Assessment:** standard 3

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| --- |
| Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  How hard were you breathing by the end of the cone travel?  [http://www.cartoonlogodesigns.com/images/misc/Smiley%20faces/smiley%20face.jpg](http://www.google.com/url?sa=i&rct=j&q=smiley%20faces&source=images&cd=&cad=rja&docid=okT_2B3kpM7ltM&tbnid=1G-eOnBsFggtMM:&ved=0CAUQjRw&url=http://www.cartoonlogodesigns.com/Smiley%20Cartoon%20Logos.htm&ei=9AMmUr2DD9e44AO5iYDIDg&psig=AFQjCNEPS1J9Axc7aBQ-sE7hT0ElK_ALlg&ust=1378309453326476) \_\_\_\_\_\_\_\_  [http://www.cartoonlogodesigns.com/images/misc/Smiley%20faces/smiley%20face.jpghttp://www.cartoonlogodesigns.com/images/misc/Smiley%20faces/smiley%20face.jpg](http://www.google.com/url?sa=i&rct=j&q=smiley%20faces&source=images&cd=&cad=rja&docid=okT_2B3kpM7ltM&tbnid=1G-eOnBsFggtMM:&ved=0CAUQjRw&url=http://www.cartoonlogodesigns.com/Smiley%20Cartoon%20Logos.htm&ei=9AMmUr2DD9e44AO5iYDIDg&psig=AFQjCNEPS1J9Axc7aBQ-sE7hT0ElK_ALlg&ust=1378309453326476) \_\_\_\_\_\_\_\_  [http://www.cartoonlogodesigns.com/images/misc/Smiley%20faces/smiley%20face.jpghttp://www.cartoonlogodesigns.com/images/misc/Smiley%20faces/smiley%20face.jpghttp://www.cartoonlogodesigns.com/images/misc/Smiley%20faces/smiley%20face.jpg](http://www.google.com/url?sa=i&rct=j&q=smiley%20faces&source=images&cd=&cad=rja&docid=okT_2B3kpM7ltM&tbnid=1G-eOnBsFggtMM:&ved=0CAUQjRw&url=http://www.cartoonlogodesigns.com/Smiley%20Cartoon%20Logos.htm&ei=9AMmUr2DD9e44AO5iYDIDg&psig=AFQjCNEPS1J9Axc7aBQ-sE7hT0ElK_ALlg&ust=1378309453326476) \_\_\_\_\_\_\_\_ |

## Grade 3-5 Fitness Activity

**Standard 3 essential content:** Describe the FITT guidelines and apply them to the components of health- and skill-related fitness.

**Learning goal:** Select a challenging intensity and identify the type of activity and intensity cue.

**Activity:** Students circulate through a circuit of stations addressing aerobic capacity, muscular endurance and strength, and flexibility. The teacher assigns students to start at each aerobic station and has them read the task cards. Music is played for three minutes, during which they do what the cards indicate and after which the students move clockwise to the next station (muscular endurance); in the third rotation, they move to the flexibility station. The teacher asks students to choose the activity level at each station that poses a reasonable challenge for them; at the muscular and flexibility stations, they record the number of repetitions completed before moving on. The teacher prearranges music in three-minute segments, with 30-second intervals for record keeping and movement. Here is the suggested order of stations.

**Station 1:** aerobic—walking in place, high stepping, jogging in place

**Station 2:** muscular endurance—bicycle (on back), bent-knee-to-elbow lift, curl-up to cadence

**Station 3:** flexibility—V-sit-and-reach (hold), straight-leg toe touch (hold), back-saver sit-and-reach (alternating legs)

**Station 4:** aerobic—jumping forward and backward, jumping side to side (ski jumps); jumping rope.

**Station 5:** muscular strength—wall push-up, knee push-up, straight-leg push-up, push-up with knees elevated (on aerobic step)

**Station 6:** flexibility—quadriceps stretch (each leg), movement from tuck position with hands clasped behind bent knees to standing position while maintaining hand position (for stretch in quads), standing with legs apart and reaching back through legs to touch floor (hold)

**Environment:** The teacher prepares moderate-tempo music, prerecorded in three-minute segments separated by 30-second pauses to allow movement to the next station. Stations with floor activity provide yoga mats or small gymnastics mats. All stations provide pencils (stored in cans) for use in recording results (each student carries a record sheet around the circuit). The teacher ensures that students start only at aerobic stations and reminds them never to stretch cold muscles. The teacher encourages students to select the level that poses a reasonable challenge; if they find a certain level too easy, they can change to next level. For each activity, both pictures and descriptions are provided.

**Intensity cues:** speed, body position in relation to gravity, distance, height, range of motion (ROM), rating of perceived exertion (RPE)

**Type cues:**

* Flexibility: Hold how long? Which joint?
* Muscular strength and endurance: Which muscles? Which body part is being overloaded?
* Aerobic: RPE level? Are you breathing hard? Can you still talk? Are you sweating?

**Assessment (standard 3):** Identify the type of exercise (by component of health-related fitness, or HRF) for each station. Then place a check mark in the appropriate box to indicate the intensity cue used to provide a choice of three different challenge levels at that station.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Station | Type (HRF  component | Intensity cue | | | | | |
| Speed | Position | Distance | Height | ROM | RPE |
| 1 |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |

# Part 2: Online Activities

1. Access the executive summary of the Dietary Guidelines for Americans published by the U.S. Department of Agriculture (<http://health.gov/dietaryguidelines/2015/guidelines/executive-summary/>). After reviewing the guidelines, create a bulleted list of highlights.
2. Read the following scenario and complete the observation form by placing a check mark in the appropriate column. Describe what the teacher should have done in order to include the areas you checked as “not observed.” Here is the scenario: You are observing a fitness lesson and see stations for each of the HRF components. You see the teacher explaining the focus of each station and referring students to the colorful task cards that provide directions at each station. Upon closer examination, you see that each card lists a single task (e.g., performing five push-ups or running around a cone track five times). When the activity begins, you notice that six students are located at each station—three performing and three waiting for their turn. When all six are finished, they move as a group to the next station. After all groups have completed all stations, the teacher dismisses the class.

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| --- | --- | --- |
| Observation form: developmentally appropriate fitness practice | Observed | Not observed |
| Teacher explains the purpose of the health-related fitness activity. |  |  |
| Activity focuses on a health-related fitness component. |  |  |
| Activity maximizes participation of all students. |  |  |
| Activity provides for differences in students’ fitness levels. |  |  |
| Teacher provides an assessment that matches the purpose of the activity. |  |  |

Description of changes to make:

# Part 3: MyPlate Interview

Interview three children between the ages of 5 and 10 about what they think they should eat for a healthy dinner. Compare their responses with the MyPlate guidelines.

# Review Questions

1. Explain the importance of good nutrition during childhood, including the role of dietary guidelines.
2. Discuss the relationship between physical activity and children’s health.
3. Defend the importance of providing children with 60 minutes of moderate to vigorous physical activity per day.
4. Define the components of health-related fitness and discuss how children differ from adults in this realm.
5. Explain how fitness education differs in K-2 versus in grades 3 through 5.
6. Discuss best practices for developing and testing health-related fitness.