

LESSON 28



Fitness Walking

This lesson is a duplicate of lesson 14 in the fourth-grade lesson set. Although the walking program aspect is the same for both grades, the fourth- and fifth-grade lessons can be kept distinct by choosing a different social studies theme around which to plan the walking program; there is also an additional science extension suggested for the nature walk for fifth grade.

Background

Walking is one of the healthiest, safest, and easiest ways to begin a fitness program, and it can be a big step toward improving your health. Fitness, or aerobic, walking uses all the major muscle groups in the upper and lower body in a gentle, dynamic, rhythmic action, which is what an ideal exercise should do. Children should get at least 60 minutes of physical activity every day, and walking is a great way for them to reach that goal.

Walking is also free! There are no machines or membership fees, no fancy packaging or expensive clothes. Walking requires only that you pace yourself and do your personal best. What's important is feeling good about yourself and setting your own goals.

Walking can be done with friends or family. It can also be done as an adventure with a school class. An active lifestyle can make you feel better, give you more energy, and enhance your health. We want you and your class to get hooked on walking. It's fun, and it's good for you!

This lesson introduces students to the benefits and fun of walking for fitness. The lesson also serves as a kickoff for an ongoing class walking club that can be integrated into geography activities throughout the year.

Planning a Walking Club

When planning a walking club, first consider where and when your students can walk. The walks can take place before, during, or after school and can be done in the hallways, gym, playground, or neighborhood—whenever and wherever such a program works best for your school.

A good way to introduce a walking club into your school is to integrate it with your curriculum. One option is to integrate the club with your social studies curriculum. For example, you can combine walking with lessons on the state in which you live, on the entire United States, or on other countries around the world. If there is an area of the world your students would like to learn about, use the walking club to talk about that area. As a class or individually, design the itinerary of a fitness walk across the region you have chosen, and then pretend you are walking across that region. Students could walk across America together, walk across a specific region of the United States, or walk around the world.

Students could even walk across a region during a specific period in history: For example, students could walk across North America prior to colonization, duplicating the migration patterns of the first Native Americans; they could walk across at a later period exploring various Native American tribes, as well as the natural resources and shelters of each tribe; or they could walk through the American colonies, studying colonists, religion, governments, and colonists' interactions with Native Americans. They could create posters to illustrate these time periods or write journal entries or fictionalized accounts of what they see along the walk. The design is completely open.

Give your program a name, such as Walk Across America or Walk Across the World, or let the students choose a name.

Obtain maps of the area you chose to study, and tie in the students' walking progress with movement on the map. Each time the class walks for a certain length of time, equate that time with a particular distance on the map (e.g., 5 minutes walked could equal 50 miles, or 80 kilometers). Each student can have a map to follow, or all of the students can plot their travels on one map. The amount of time the class walks and the distance traveled will depend on the part of the world or country on which you chose to focus. For example, if you decided on a large area of the world, such as Africa, then 5 minutes might equal 200 miles (322 km) traveled. If you chose the state of Maryland, however, 5 minutes might equal 50 miles (80 km).

Keep track of your class walks on the logs provided. There is a log for each class as well as for each student. The class log can be made larger and displayed in the classroom for all to see. A map of the region or country that they are traveling across should be displayed along with the class log. Displaying the map and log will motivate the class and keep everyone involved.

If it is possible to supply students with pedometers, consider tracking the number of steps they take instead of tracking walking time. Pedometers can also be a fun way to motivate students to increase their activity. Have students keep track of the number of steps they take each day for a week, and then have them determine their average number of steps per day. Set a goal for students to increase their average number of steps per day by 10%.

Possible extensions for combining geography with the walking program include having students learn the state's or country's capital, natural resources, climate, unique features, major monuments, and historical sites. Similar to the social studies extensions, students could create posters to illustrate these geographic features or write journal entries or fictionalized accounts of what they "see" along their walk.

Another way to integrate walking with the curriculum is to link an outdoor nature walk with science lessons (see Extension Activity: Taking a Nature Walk at the end of this lesson, which gives suggestions and worksheets for taking a bird observation walk). Students can collect samples, describe a habitat, or look for evidence of human effects on the environment. Have students follow up in the classroom with posters or journal entries describing what they saw.

Encourage students to take on the walking program as an after-school, family-and-friend adventure. Have them keep a log of the dates and times of their after-school walks (see Worksheet 28.3, Student Home Walking Log). They can plot their travels on the maps with pins or thumbtacks. Get the whole school involved in walking—principals, office staff, custodians, and other teachers and students can join the program. The more the students see others participating, the more they will want to become involved.

Estimated Teaching Time and Related Subject Areas

Estimated teaching time: 1 hour

Related subject areas: science, social studies, math, physical education

Objectives

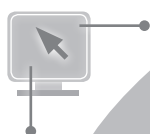
- Learn the importance of regular exercise and establish an ongoing class walking club.
- Be exposed to the benefits of walking with family, friends, and classmates.
- Learn walking techniques and learn about the health benefits of raising their heart rate through regular aerobic activity.
- Learn about a particular geographic region of the world.

Materials

- Comfortable shoes (students and teacher)
- Worksheet 28.1, Teacher Classroom Walking Log
- Worksheet 28.2, Student Classroom Walking Log (one per student)
- Worksheet 28.3, Student Home Walking Log (one per student)

- Worksheet 28.4, Dichotomous Key Worksheet (optional extension, one per student)
- Maps
- Map pins or thumbtacks
- Audio recorder, binoculars, and bird identification book or field guide (optional, for use during optional nature walk extension)
- Pedometers* (optional, one per student)

**Low-cost pedometers are available from many sources online. Consult with your school's physical education director to get recommendations for accurate, easy-to-use, low-cost models. In some communities, local health departments, health centers, or health insurers may provide pedometers for free.*



Worksheet 28.1

Teacher Classroom Walking Log

Name _____

Date	Time or Steps*	Miles	Where

*Log the number of steps if your class is using pedometers.
Date: Date of the fitness walk.
Time or Steps: Number of minutes walked or number of steps walked.
Miles: Number of miles walked depends on how many minutes or steps your class decided equals 1 mile.
Where: Town, city, state, or country traveled through today.

Worksheet 28.2

Student Classroom Walking Log

Name _____

Date	Time or Steps*	Miles	Where

*Log the number of steps if your class is using pedometers.
Date: Date of the fitness walk.
Time or Steps: Number of minutes walked or number of steps walked.
Miles: Number of miles walked depends on how many minutes or steps your class decided equals 1 mile.
Where: Town, city, state, or country traveled through today.

Worksheet 28.3

Student Home Walking Log

Name _____

Date	Time or Steps*	Miles	Where

*Log the number of steps if your class is using pedometers.
Date: Date of the fitness walk.
Time or Steps: Number of minutes walked or number of steps walked.
Miles: Number of miles walked depends on how many minutes or steps your class decided equals 1 mile.
Where: Town, city, state, or country traveled through today.

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Worksheet 28.4

Dichotomous Key Worksheet

Name _____

Bird Identification Study

Pick one bird you have observed, and write out the sequence of questions and answers you followed to arrive at the name of the bird. You may not need five questions to get to the end of the key. Once you have identified the bird, stop, even if you have answered only one question!

Question 1: _____
Answer: _____
a. Yes _____
b. No _____

Question 2: _____
Answer: _____
a. Yes _____
b. No _____

Question 3: _____
Answer: _____
a. Yes _____
b. No _____

Question 4: _____
Answer: _____
a. Yes _____
b. No _____

Question 5: _____
Answer: _____
a. Yes _____
b. No _____

Name of animal: _____

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Procedure

1. Fitness Walking

Explain that fitness walking is walking at a pace (speed) that makes the heart, lungs, and blood vessels work harder than usual. This type of aerobic workout makes the heart muscle pump harder because the body's other muscles—the leg and arm muscles—are working harder and need more blood to keep them going.

Blood delivers energy and oxygen to working muscles. When muscles work hard, such as when you're fitness walking, they need more energy and oxygen. During exercise, the heart works harder to pump blood to these muscles. When the heart works harder, it gets stronger.

Explain to the students that they can check their pulse rate before they begin exercising and again during their fitness workout to see firsthand how the heart muscle works harder. (See details on how to do this in section 4, Finding a Pulse, later in this lesson.)

Also explain the importance of completing an hour of physical activity each day of the week. It is OK to do this activity a little bit at a time, so a 15-minute or longer walk can help them reach their hour-a-day goal.

2. Benefits of Fitness Walking

Ask the students to list the benefits of fitness walking. These may include the following:

- Walking is an excellent and safe way to improve aerobic fitness. Aerobic exercises such as walking strengthen the heart, lungs, and blood vessels. Walking lets you do this with less wear and tear on the body compared to many other types of conditioning.
- Walking, like other aerobic exercises, can give you more energy and reduce fatigue.
- Walking can help relieve stress.
- Walking can improve mood and mental function.
- Walking can help slow down the progression of osteoporosis (bone loss), which can occur as the body ages.
- Walking can be performed with friends and family.

3. How to Fitness Walk

Make sure students wear sneakers or comfortable shoes. Review the following (and consult figure 28.1):

- **Arm swing:** Try to keep the arms swinging faster than they swing when walking normally. The faster the arms swing, the faster the legs move. Bend the arms 90 degrees at the elbow. Concentrate on moving the arms faster and swinging them from the shoulders. Remember, when you shorten your arms (bend them 90 degrees at the elbow), you can swing them faster and your legs will move faster. Keep your shoulders relaxed. Beginners tend to tense up around the shoulders. Relax!
- **Hands:** Form a loose fist. Do not clench your fist and put tension in the arm muscles.
- **Foot placement and toe-off:** The power of the step comes from the toe-off. With each step, land the foot on the heel, then roll forward to the toe and push off.



Figure 28.1 Fitness walking.

Tell the students that following these instructions for fitness walking should help them enjoy their walking more. They should do what feels comfortable for them. Do it right, but make it *fun*!

4. Finding a Pulse

On the first day of fitness walking (or however often you would like), remind the students that their pulse rate will increase when they exercise, and teach them how to find their pulse (refer to figure 28.2). Explain to the students: “During an aerobic workout, you want your heart, lungs, and blood vessels to work harder than they are used to working. Your pulse can help you know what is going on inside your body. On the side of your neck, just below the jawbone, is a major blood vessel bringing blood to the brain. Put your index and middle fingers together and place them gently on that blood vessel on the side of your neck to feel the pulse. During exercise, the pulse is usually very easy to find.” To demonstrate how the pulse rate changes from the warm-up to the fitness activity to the cool-down, have the students try to feel their pulse before, during, and after aerobic walking.

Tell the students: “The heart is a muscle that has a huge job to do. It must always be working every second, minute, hour, day, week, month, and year of your life. Once you understand that this heart muscle of yours has such a huge job, hopefully you will want to take care of it so it can do its job well.

“Walking is one way to keep the heart muscle healthy. Likewise, eating right and being active are both a big part of helping the heart stay healthy. If, during the fitness activity, the heart is working harder than it’s used to working, then with time the heart will get stronger and stay healthy. The more you include exercise and eating right in your daily life, the better your body can work and feel!”

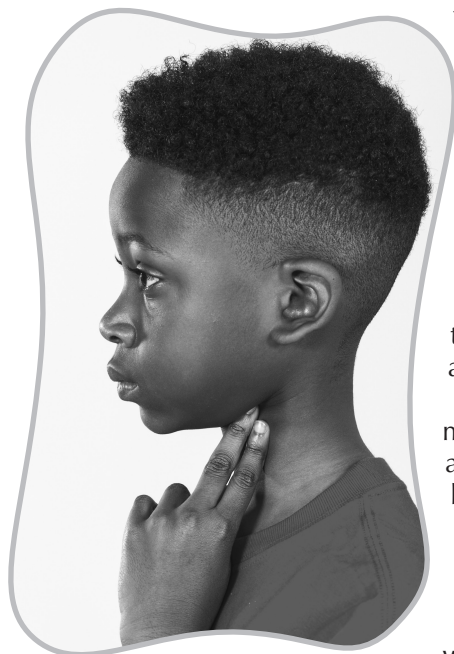


Figure 28.2 Finding a pulse.

5. Safe Workout

Following the steps of the safe workout will help students prevent injuries. The four steps are as follows:

- **Step 1: Warm-up.** Start each fitness walk with a slow walk to get the body ready for harder work. Emphasize the importance of warming up and stretching before doing any type of physical activity. During the warm-up, talk about the adventure for the day and review the important facts about the warm-up. (Refer to lesson 3, Safe Workout: An Introduction.)

- **Step 2: Fitness activity.** Introduce the walking activity you have chosen for your class, such as walking the first leg of a trip across the United States. Have the class set a goal for that day. For example, the class goal for the first day may be to walk for 10 minutes without stopping. If students are using pedometers, the goal may be for each student to walk 1,000 steps. Equate the number of minutes walked or number of steps walked to a distance on the map. As students get used to the program, the class can set goals to walk longer and more frequently, or (if using pedometers) to increase their average number of steps per day by 10%. Remember, the more days the students walk, the greater the opportunity they have to learn and become fit.

Take the students on their fitness walk. During the walk, lead a discussion about the geographic region they are pretending to walk through on their program. Other topics to discuss include nutrition and physical activity issues.

- **Step 3: Cool-down.** After their fitness walk, have the students walk slowly to let their bodies recover. Review the benefits of the cool-down.
- **Step 4: Stretch.** After the cool-down, have the students stretch to prevent soreness, to improve flexibility, and to decrease their chances of injury. While they are stretching, review the benefits of stretching.

6. Discussion

The Stay Healthy Corner can be an area of the classroom decorated with pictures or student drawings that represent the Principles of Healthy Living (e.g., healthy foods, children engaged in physical activity). Or it can be simply a time for discussion and reflection on the health messages of the lesson. After the first walk, gather the class together and review the benefits of walking, stressing the enjoyment students will get from it. Introduce and fill out together the classroom walking logs —Worksheet 28.1, Teacher Classroom Walking Log, and Worksheet 28.2, Student Classroom Walking Log.

Introduce and distribute Worksheet 28.3, Student Home Walking Log. Review the four parts of the log sheet—(1) Date, (2) Time or Steps (if students are using pedometers), (3) Miles, and (4) Where—and explain how to complete the log. You and your students can decide how to use Worksheet 28.3. For example, the students can keep track of their after-school walking program completely on their own and track their progress on separate maps. Or the students can integrate their after-school walking experience into their in-school tracking system. However you approach it, the ultimate goal is to motivate students to exercise at home with family or friends so that they can achieve the goal of being physically active for at least one hour every day.

Extension Activity: Taking a Nature Walk

Taking a nature walk is a fun way to introduce additional walking time into the school day, to explore your local surroundings, and to enhance a science, math, or social studies unit. You can walk to a local green space near your school, such as a park, an urban wild, an open field, or a wooded area. You can also take a walk in the neighborhood surrounding your school. Keep track of nature walks on the classroom walking logs. In general, nature walks cover about half the distance of fitness walks for the same amount of time because of the frequent stops to observe and discuss.

Birds, for example, have many observable behaviors and are a fascinating group of animals to study on a nature walk. Their migration patterns are interesting to identify and track, and often their physical characteristics provide clues to their natural habitats. You might want to review some of the main characteristics of birds at the start of the walk. Birds have feathers of different colors and sizes and beaks of different sizes and shapes, and they lay eggs, build nests, fly, and often follow migration patterns.

Take along a few pairs of binoculars on your walk. Depending on the habitat, you can look for birds nesting in the trees, nesting in tall grass, flying, flitting in or around bodies of water such as ponds and lakes, and perching on telephone wires and fences.

The changing seasons offer different kinds of explorations and lessons on bird behavior, identification, and observation. Consider the following:

- In spring through early summer, when birds are claiming breeding territories and attracting mates, they sing the most. Each species has a recognizable song, with different pitches and tempos. Bring along a tape recorder, binoculars, and a bird identification book (a field guide) and ask your class to match a birdsong to the bird singing it and to match a bird's physical characteristics to the name of its species. Back in the classroom,

play your recordings of the birdsong and translate these sounds into writing. Compare the written examples and imitate these sounds using the written versions.

- In the fall, some of the birds in any location migrate north or south, whereas others are year-round residents or merely passing through as transients. The class can observe the migration of birds by looking for large flocks overhead when the temperature turns colder. How birds know when to begin their journey is a fascinating topic to study. As a class you can explore the aspects of nature that trigger migration and how birds absorb this information. You can also research how birds find their way to their new destinations. The science of bird navigation involves studying the roles of the earth's magnetic field, star constellations, geographic land and water features, and much more.

- The winter is the best time to search for bird nests abandoned in the spring and summer after the young have learned to fly. They are often revealed when broadleaf (deciduous) trees and shrubs lose their leaves and grasses die off. The nest's size, shape, and materials usually are unique to the bird species. With a field guide, nests are a good way to identify birds that have migrated for the season and those that are wintering over.

You may use the following science extensions of the nature walk to enhance classroom study during any season:

1. Have students create field journals. Field journal entries are a valuable way to capture birding expedition activities, observations, and questions. Observations are usually recorded during the walk. Ask the students to record any distinguishing characteristics such as beak length, size, and shape; bird colors; and bird size (small, medium, or large), and then have them draw the bird as they see or remember it. Hypotheses, new questions, goals of the expedition, and conclusions are written after the trip.
2. Have students create keys to identify birds by their physical traits. Scientists use keys to help them identify and classify similarities and differences in the natural world around them. A key leads its user through a series of questions on the characteristics of the subject under observation until the name of the object, plant, or animal is reached. It is easy to create a dichotomous key for a group of living or nonliving subjects that you want to organize by physical traits. The key can be a good method for helping students make observations and understand how physical traits contribute to the classification of plants and animals.

Introduce and distribute Worksheet 28.4, *Dichotomous Key Worksheet*, to familiarize students with the concept of a key. Then guide them through the following basic rules for making a key:

- Start by observing the birds to be used in the key.
- List the most general traits that can be used to divide the birds into categories.
- Make sure each step in the key involves making a single choice between two characteristics. These characteristics are grouped 1a and 1b, 2a and 2b, and so forth.
- Make sure each step distributes one or more objects (e.g., plants, animals) into two smaller units.
- Make sure each unit either identifies an object (e.g., plant, animal) or gives directions as to where to go next in the key.

Beginning of a Simple Key

1. Does the animal have a beak?
 - a. Yes. Go to question 2.
 - b. No. It is not a bird.

2. Does the bird have webbing between its toes?
 - a. Yes. It is a duck.
 - b. No. Go to question 3.
3. Does the bird have a noticeably downward-curved beak?
 - a. Yes. Go to question 4.
 - b. No. Go to question 5.

