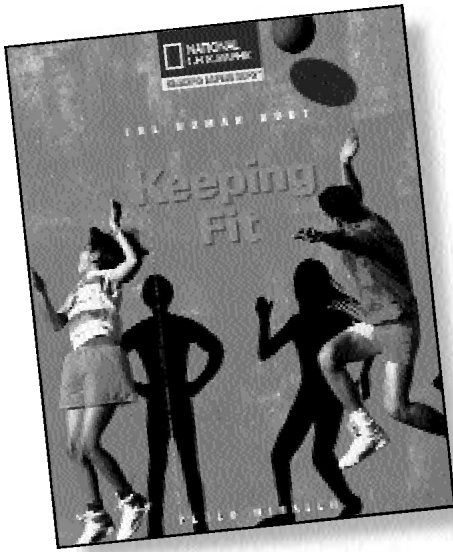


Overview

Summary

Keeping Fit



By Peter Winkler

Today, it's more challenging than ever to keep fit. Technology has replaced the need to do many physical activities, and there are more foods to choose from than ever before. A healthy diet is an important part of keeping fit. Water is another important part of keeping fit. Drinking six to eight glasses of water a day helps keep your body working right, especially during exercise. Exercise is another critical health factor. Both aerobic and strength-building exercises help keep the body physically fit. While people must take some responsibility for their own health, scientists are developing methods that can help people's own efforts. Many reliable sources on the Internet offer a wealth of information for learning more about fitness.

Science Background

Between 1980 and 2000, the number of overweight children nearly doubled. Experts say that 13 percent of American children are overweight. Study after study yields alarming statistics. For example, children in an Alabama research project derived half their calories from the tip of the food pyramid. Why is there such a growing epidemic of childhood obesity? Diverse causes include hours spent in front of a TV or computer, less time for physical activities in school, proliferation of snack foods, and a widespread shift from home cooking to prepared food. The U.S. Surgeon General identified daily exercise and diets based more closely on the USDA nutritional guidelines as two ways to combat obesity, which is no longer a personal problem but one that affects society as well.

Learning Objectives

Science

- Recognize that people have some responsibility for their own health
- Explain why nutrition and exercise are essential to good health
- Describe a healthful, balanced diet based on USDA nutritional guidelines
- Identify exercises that build physical fitness

- Recognize the benefits of drinking water
- Explain how scientific advances may affect personal health and fitness

Process Skills

- Skill Focus**
- Estimating
- Supporting Skills**
- Observing
 - Communicating
 - Collecting and interpreting data
 - Investigating

Reading Skills

- Genre: Expository**
- Skill Focus**
- Draw conclusions
 - Use context clues
- Supporting Skills**
- Summarize
 - Compare and contrast
 - Recognize cause-and-effect relationships
 - Use a graphic organizer

Before Reading

Activate Prior Knowledge

Direct students' attention to the cover of the book and read the title. Ask students:

What does fitness mean to you?

Make a list of students' responses on the board. Have students identify which responses relate to exercise and which relate to nutrition. Have students copy the list into their notebooks and add to it with a partner.

After discussing completed lists, explain to the class that the book they are about to read will offer guidelines for fitness through good nutrition and regular exercise.

Preview

Give students time to flip through the book, and encourage them to pay attention to chapter titles, photos, captions, and special features. Ask:

What are some topics that are included in this book? How do you know?

What do many of the photographs show?

What does the diagram on page 9 tell you?

Set Purpose

Ask students whether this book reminds them of other books they have read. Help students set a purpose for reading. Ask:

What do you want to find out as you read?

Vocabulary Strategy: Use Context Clues

Activity Master, Page 30

Have students turn to page 8 in the student book and read the third paragraph on that page. Model for students how to use context clues to figure out word meanings:

Suppose I have no idea what the word protein means. I can use the others words in the sentence, or sentences before or after, to give me an idea. I read that

protein is something found in meat and dairy products, so protein must be something found in certain types of foods. In the next sentence, I read that protein helps different body parts do their jobs. Next I can look up the word in the glossary to find out more about its meaning, but the context has given me an idea of what it means.

Have students use *Keeping Fit* to practice using context clues on the Activity Master on page 30. They will be using these words:

allergic
aerobic exercise
nutrition
vitamin
diabetes
calories

Correlation to National Standards

Writing Skills

Writing Focus

- Write an editorial (persuasive)

Supporting Skills

- Use the writing process
- Conduct research

Viewing

- Analyze an image

Science

- Personal health (K–4, 5–8)
- Science and technology in local challenges (K–4)
- Science as inquiry (K–4, 5–8)
- Nature of science (K–4, 5–8)

Reading/Language Arts

- Read to be informed and make personal decisions
- Apply a wide range of strategies to comprehend and interpret texts
- Use and adjust written and visual language to communicate effectively
- Use technological resources to gather, synthesize, and communicate information

During Reading

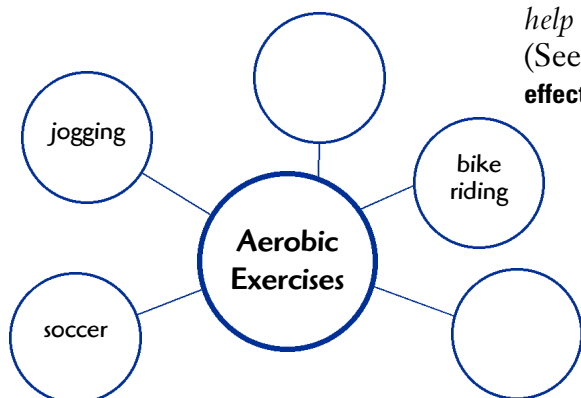
Read Strategically: Draw Conclusions

Activity Master, Page 31

Assign each chapter of the book as independent reading. As students read, they can draw conclusions about keeping fit. Students can use the Activity Master on page 31 to record their ideas. Remind students that when they draw conclusions, they make a decision about something based on information in the book and what they already know. Explain that they draw conclusions every day.

Strategy Tip: Use a graphic organizer

If students have difficulty understanding certain passages, they can create webs to aid comprehension. Explain that a web can help organize details about a topic. (See web below.) Suggest that students create a web for the main ideas of each chapter.



Students can then share their webs and ask for clarification during the follow-up class discussion.

Meeting Individual Needs

For specific strategies on meeting individual needs, see pages 50–55.

After Reading

Responding

Initiate a class discussion to assess reading comprehension. Ask:

What are challenges to eating in healthy ways? To exercising regularly? Explain. (Answers will vary.) (summarize)

What are some decisions you can make to keep fit? (Answers will vary.) (summarize)

What resources can you use to help you keep fit? (See pages 8–9, 14–15, and 24–25.) (draw conclusions)

What is the difference between aerobic and strength-training exercises, and why are both important? (See pages 16–21.) (compare and contrast)

How can space-age technology help people keep fit on Earth? (See pages 23–25.) (cause and effect)

Writing and Research: Write an Editorial

Activity Master, Page 32

Students can work independently or in pairs to write an editorial discussing why young people should eat right and exercise regularly. They can include ways to motivate young people to stay fit. Remind students that an editorial provides an opportunity for people to state and explain their opinions. Editorials are printed in newspapers and magazines and aired during television news programs.

Students can use the Activity Master to help them organize their ideas. Then students write a short editorial that discusses their opinions and suggestions.

Communicating: Viewing

Analyze an image

Have each student choose an image from the student book that relates to the content of his or her editorial. Ask students to be ready to explain the following with regard to the image:

What is the message or main idea of the image you've chosen? What details help explain this message?

How does the image relate to the ideas in your editorial?

What title would you give this image?

Focus on Science

Thinking Like a Scientist

Process Skill: Estimating

Answers for pages 26–27: Check It Out: Answers will vary.



Estimating

Activity Master, Page 33

Students estimate the number of hours they spend being active each day. Students can use the Activity Master on page 33 to record their estimates and the information they gather. Ask students to share ways to add active time to their routines.

Hands-on Science

Summary Students use a brown paper bag and a variety of foods to help them identify foods that contain a lot of fat.

Tips Remind students to write the name of the food on each piece of paper. Also, for step 5, lead students to recognize the difference between a greasy mark and a wet mark. For example, fruit slices will leave a wet mark, not a greasy mark.

Safety Notes Have students put away scissors as soon as they are done cutting squares.

Answers to Think *Answers will vary, but students should recognize that they can learn more about the fat content in foods by reading the labels on food packaging.*

Assessment Options

Use the following assessment options to assess students' understanding of *Keeping Fit*.

Questions

Use the following questions during individual conferences, or ask students to write the answers in their notebooks:

- 1 What are two ways the Food Guide Pyramid can help you have a healthier diet?
- 2 What are two types of exercises that your body needs to keep fit? What is the importance of each?
- 3 What are two resources you can use to help you make healthy choices?
- 4 What are two benefits to drinking 6–8 glasses of water per day?

Assessment Activity

Students can write up a healthy plan for themselves for one week. They can plan their meals for each day, including water consumption and snacks. Explain to students that the average girl needs about 2,200 calories a day, while the average boy needs about 2,500 calories a day.

Students should also list ideas for both aerobic and strength-training exercises. As they develop their plan, students can conduct research on the Internet and read labels on food packages. Remind students that you would like to review their plans before they consider implementing them.

Healthful plans should

- ✓ be organized by day of the week
- ✓ include meal and snack plans for balanced nutrition
- ✓ include reasonable plans for both aerobic and strength training exercise
- ✓ use correct grammar and mechanics

Multiple-Choice Test

See the multiple-choice test on page 67.

Cross-Curricular Connection

Art

Students might enjoy creating a bookmark that lists exercises as a reminder to incorporate exercise into their daily routines. On the bookmark, students can list types of exercises and the amount of calories each exercise burns after a half-hour. Students can conduct research using the Internet, fitness magazines, or books.

Home-School Connection

Students can take on the role of health coach for their family. First, parents and students can identify areas related to health that need improvement. Together, students and parents can come up with strategies to help address these concerns.

Vocabulary: Use Context Clues

You can use a word's context, or the words that come before and after it, to figure out the meaning of an unfamiliar word.

Read the sentences. Circle the words in each sentence that help you figure out the meaning of the underlined word. Write what you think the word means on the line. Then look up the word in the glossary or a dictionary to see how closely its meaning matches the meaning you wrote from context.

1. I know I'm allergic to strawberries because, when I eat them, I get a red rash all over my arms and neck.

meaning from context: _____

meaning from glossary: _____

2. Certain aerobic exercises, such as running races with friends, can make working your heart and lungs fun!

meaning from context: _____

meaning from glossary: _____

3. It can be hard to give up unhealthy foods, but good nutrition can give your body more energy each day.

meaning from context: _____

meaning from glossary: _____

4. You can get important vitamins from eating all kinds of good-tasting food.

meaning from context: _____

meaning from glossary: _____

5. My friend must carefully watch how much sugar she eats because she has diabetes.

meaning from context: _____

meaning from glossary: _____

6. How many calories will I burn each week if I run for 30 minutes a day?

meaning from context: _____

meaning from glossary: _____

Reading: Draw Conclusions

As you read the student book, think about why people should keep fit and some challenges that may prevent people from making healthy choices. Then draw conclusions about keeping fit. Remember that, when you draw conclusions, you make a decision about something based on the information you are given and from what you already know. Write answers to the questions below.

1. Is having so many choices about what you eat a good thing, a bad thing, or both?

2. What is the Food Guide Pyramid, and why did the USDA create it?

3. Why should people have a healthful diet?

4. Why are both aerobic and strength-building exercises important to keeping fit?

5. Does technology make it easier or more difficult for people to keep fit?

Check Your Thinking

How did I reach this conclusion?

Is the information I used accurate?

Does this conclusion make sense?

Are there other conclusions that make more sense?

Writing: Use the Writing Process

Write an Editorial

In *Keeping Fit*, you read about the benefits to keeping fit. But young people face many challenges to improving their fitness level. Now you have the opportunity to encourage other people your age to keep fit. Talk over your ideas with a partner. Then write an editorial that answers these questions: Why should young people keep fit? How can they overcome challenges to keeping fit? Plan your editorial below.

1. First: Explain why young people should pay more attention to their level of fitness.

2. Second: Tell how young people can improve their overall health.

3. Third: Identify challenges young people face to keeping fit.

4. Fourth: Offer tips and suggestions for overcoming these challenges.

5. Write the sources you will use to write your editorial (people, books, magazines, Internet sites).

Tips for Writing Your Editorial

1. Identify and explain the issue in the first sentence.
2. State your opinion and support your opinion with facts and details.
3. Be polite and respect the opinions of others.

Thinking Like a Scientist: Estimating

Scientists estimate, or use what they know and other resources to reach a conclusion. Estimating is useful when you can't count or measure something exactly.

You can use estimating to get an idea about how many hours a day you spend being active, and how many hours you spend being inactive, or sitting around. Being active can include walking to and from places, going up and down stairs, exercising, or playing a sport. Being inactive can include reading, watching TV and sitting in class. (Don't include sleeping as you estimate and count up hours.)

Once you've estimated hours, check your estimates by keeping track during one day. After you have checked your estimates, answer the questions below.

Estimate of hours on an average day

I think I'm active for about _____ hours.

I think I'm inactive, or sitting around, for about _____ hours.

Actual hours

Day and date I'm checking my estimate: _____

I was active for about _____ hours.

I was inactive, or sitting around, for about _____ hours.

Questions

How accurate were your estimates?

Were you surprised by the actual number of hours you spend being active and inactive? Explain.

Do you think you have enough active hours in your day?

Write some ways you can add active time to your daily routine. For example, can you walk or ride your bicycle more often?