



Teacher Instructional Guide

Unit 7 – Environmental and Social Factors Affecting Health

Lesson 1 – The Environment and Health

Lesson 2 – Environmental Factors Related to Exercise

The Healthy and Wise monthly publications can also be used to enhance this unit or provide additional content and lessons.

Lesson 1 – The Environment and Health

Objective:

Students will learn about how the environment influences their health and how they can protect themselves from potentially hazardous environmental conditions.

Standards

Health TEKS 6.6 A, B – The Student understands how factors in the environment influence individual and community health.

Health TEKS 7- 8.1 A – Students analyze the interrelationships of physical, mental, and social health.

Health TEKS 7- 8.6 – The student understands how physical and social environmental factors can influence individual and community health throughout the lifespan.

Health TEKS 7- 8.6 B – Students describe the application of strategies for controlling the environment such as emission control, water quality, and waste management.

Health TEKS 7- 8.12 A, B - Students interpret critical issues related to solving health problems and relate practices and steps necessary for making health decisions.

National Health Standard (1) – Students will comprehend concepts related to health promotion and disease prevention to enhance health.

National Health Standard (7) – Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce risks.

Preparation/Background:

Read the article, discussion questions, and activities. Determine which vocabulary words might need to be introduced based on your grade level. Obtain any necessary items or resources for selected activities.

Introduction/Focus:

ASK – “How big of a role do you think the environment plays in our health and daily lives?” Encourage discussion. **ASK** – “Have any of you heard about environmental factors that can cause health problems? Can you give me some examples?” Accept reasonable answers. Explain to students that they are going to learn about how the environment affects our health in the Healthy and Wise article.

Reading the Article:

Students can read the article silently, with a friend, or as a group. The teacher may also read the article to the students. After the students have read the article, assess reading comprehension by asking the following questions:

- What two kinds of hazards in the air, water, and soil are we especially impacted by with regard to our health? **(Chemical and Biological)**
- Who can list one item from the environmental checklist in the article and explain how that item could help make our environment healthier? **(Refer to checklist in the article and accept reasonable answers.)**

Use the discussion questions after the article to generate further interest and discussion.

Activities:

Select the desired activities and give students an opportunity to work together in small groups. Assign some of the activities as home projects and let the students share their findings with the class.

Additional Activities

- Divide the class into groups. Ask each group to research the Environmental Protection Agency (EPA) (when it was founded, its purpose, etc.) and to develop a presentation on their findings. Have students create visual aids (posters, handouts, media presentations, etc.) to go along with their presentations. Encourage creativity!
- In pairs, ask students to create a “Public Service Announcement” encouraging people to take care of the environment and themselves. These PSAs can be videotaped or acted out for the class. Encourage the pairs to use facts from the Healthy and Wise article, along with other sources to make their projects solid. Encourage students to have fun!
- Have students individually research what lead paint is and why it was a topic of concern during the 1970s. Ask students to share their findings with the class.

- **(Guest Speaker)** Invite an environmental scientist or science teacher to visit with your class about the current state of the environment and what people can do to make the world safer. Encourage class participation.

Performance Assessment:

Give students an opportunity to give an oral or written demonstration of what they learned this week about the environment and health.

1. In groups, have students make collages representing hazards to the environment and ways to make the environment safer. Students can draw, cut pictures out of magazines, and/or find pictures on the Internet for their collages. When they are finished, have each group present their work to the class. Display the collages in the classroom.
2. Ask students to individually write a letter to their parents explaining what they learned about the environment and health and what they would like to do to create a healthier environment (ie: start recycling, wash fruits and veggies before eating them, etc.).

Evaluation/Grading:

Use the rubrics available on the last few pages of this instructional guide to evaluate each student's work and performance. Other rubrics are available online at www.caprockpress.com in the school staff section.

Lesson 2 – Environmental Factors Related to Exercise

Objective:

Students will learn the importance of being aware of environmental conditions when exercising outdoors. The students will also learn the social factors related to exercise.

Standards Covered

Health TEKS 6.6 A – The Student understands how factors in the environment influence individual and community health.

Health TEKS 7- 8.1 A – Students analyze the interrelationships of physical, mental, and social health.

Health TEKS 7- 8.6 A – The student understands how physical and social environmental factors can influence individual and community health throughout the lifespan.

Health TEKS 7- 8.12 A, B - Students interpret critical issues related to solving health problems and relate practices and steps necessary for making health decisions.

National Health Standard (1) – Students will comprehend concepts related to health promotion and disease prevention to enhance health.

National Health Standard (7) – Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce risks.

Preparation/Background:

Read the article, discussion questions, and activities. Determine which vocabulary words might need to be introduced based on your grade level. Obtain any necessary items or resources for selected activities.

Introduction/Focus:

ASK - “How do you think the weather can affect a person’s outdoor exercise routine?” Encourage responses. Explain to students that they are going to learn about environmental and social factors related to exercise by reading the article in Healthy and Wise.

Reading the Article:

Students can read the article silently, with a friend, or as a group. The teacher may also read the article to the students. After the students have read the article, assess reading comprehension by asking the following questions:

- According to the article, how many minutes of physical activity should most people get each day? **(30 to 60 minutes)**
- What is the best way to dress when planning to exercise outdoors in cold weather? **(It is best to dress in layers. Refer to the article for layering specifications.)**
- What are the three kinds of heat-related illnesses listed in the article? **(Heat Cramps, Heat Exhaustion, Heat Stroke)**

Use the discussion questions after the article to generate further interest and discussion.

Activities:

Select the desired activities and give students an opportunity to work together in small groups. Assign some of the activities as home projects and let the students share their findings with the class.

Additional Activities

- In groups, ask students to create a “How-To” video or presentation for the proper way to protect yourself from environmental/climate elements while exercising outdoors. Encourage students to show the proper clothing for both hot and cold weather workouts, how to properly stretch, and how to avoid heat-related illnesses. Have students share their projects with the class. Encourage students to be creative and have fun!
- Individually, tell students to research one of the three heat-related illnesses listed in the article and write a brief report on their topic. Ask students to present their papers to the class.
- In pairs, ask students to research the kinds of uniforms/clothing worn by Olympic athletes in both the Summer and Winter Olympic Games. What

kinds of suits do skiers wear? What about runners? When they are finished, have the groups share their findings with the class.

- Ask students to find an article in a magazine, newspaper, or on the Internet that discusses proper clothing and activities for outdoor exercise year round.
- **(Guest Speaker)** Invite a personal trainer or year-round athlete to visit with your class about the importance of being aware of environmental conditions when exercising outdoors. Encourage class participation and discussion.

Performance Assessment:

Give students an opportunity to give an oral or written demonstration of what they learned about environmental factors related to exercise.

1. Ask students to create a poster showing a checklist of things to have on-hand when planning to exercise outdoors during the hot and cold months. Have them share their checklists with the class.
2. Divide students into pairs. Ask each pair to participate in 30 to 60 minutes of outdoor exercise together during one week. Tell them to record their activities for the week in their notebooks. At the end of the week, have each group explain what activities they did, how they had to dress to accommodate the weather, and how they feel about the assignment. Encourage discussion.

Evaluation/Grading:

Use the rubrics available on the last few pages of this instructional guide to evaluate each student's work and performance. Other rubrics are available online at www.caprockpress.com in the school staff section.

Administer Unit 7 Test – Available at the end of this instructional guide.

GENERAL RUBRIC

Read each box below and determine if the student completed most or all of the characteristics listed. Make your decision based on a student's overall performance.

Points, stickers, or other forms of praise may be used when assessing or grading student work. Be creative, and give feedback as often as possible.

<p>“Excellent” or 4 points</p>	<ul style="list-style-type: none"> <input type="checkbox"/> An outstanding example of student's work. <input type="checkbox"/> Student understands and applies all health concepts and skills. <input type="checkbox"/> Student had needed supplies. <input type="checkbox"/> Student participated with enthusiasm and worked well with others/alone. <input type="checkbox"/> Student displays knowledge of language, reading, writing and math. <input type="checkbox"/> Finished work is easy to decipher and understand. <input type="checkbox"/> Work shows no significant errors in grammar, punctuation, capitalization, or spelling. <input type="checkbox"/> Student obviously did their best.
<p>“Good” or 3 points</p>	<ul style="list-style-type: none"> <input type="checkbox"/> An above average example of student's work. <input type="checkbox"/> Student understands and applies most health concepts and skills. <input type="checkbox"/> Student had most of his/her needed supplies. <input type="checkbox"/> Student made an effort to participate and did his/her best to cooperate with others/work alone. <input type="checkbox"/> Student is able to organize thoughts. <input type="checkbox"/> Finished work contains few errors and does not detract from its intended meaning. <input type="checkbox"/> Student stayed focused on the task.
<p>“Average” or 2 points</p>	<ul style="list-style-type: none"> <input type="checkbox"/> An average/fair example of student's work. <input type="checkbox"/> Student attempts to understand and apply health concepts and skills. <input type="checkbox"/> Student couldn't find some of his/her needed supplies. <input type="checkbox"/> Student didn't work well with others or alone. <input type="checkbox"/> Student is not well organized or focused and does not complete work efficiently. <input type="checkbox"/> Work contains several noticeable errors. <input type="checkbox"/> Student can do better.
<p>“Poor” or 1 point</p>	<ul style="list-style-type: none"> <input type="checkbox"/> A poor example of student's work. <input type="checkbox"/> Student does not understand and apply health concepts and skills. <input type="checkbox"/> Student was without his/her needed supplies. <input type="checkbox"/> Student refused to cooperate and did not work well alone either. <input type="checkbox"/> Student is confused/distracted/lacks ability to finish. <input type="checkbox"/> Student displays major problems with spelling, grammar, coloring, etc. <input type="checkbox"/> Student needs redirection/reteaching.

Health Knowledge and Skills Evaluation Rubric

Read each box below and determine if the student accomplished the cognitive, behavioral, and attitudinal outcomes listed. Make your decision based on a student's overall performance.

Points, stickers, or other forms of praise may be used when assessing or grading student work. Be creative, and give feedback as often as possible.

<p>“Excellent” or 4 points</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Student has mastered (90-100%) of the health concepts presented. <input type="checkbox"/> Student has successfully applied health skills in a variety of situations and settings. <input type="checkbox"/> Student always demonstrates good health behaviors. <input type="checkbox"/> Student has a positive and enthusiastic attitude towards health.
<p>“Good” or 3 points</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Student understands most (80-89%) of the health concepts presented. <input type="checkbox"/> Student has been able to apply most of the health skills in a variety of situations. <input type="checkbox"/> Student demonstrates good health behaviors most of the time. <input type="checkbox"/> Student cooperates and demonstrates a good attitude towards health.
<p>“Average” or 2 points</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Student has demonstrated an average (70-79%) understanding of the health concepts presented. <input type="checkbox"/> Student has attempted to apply most of the health skills in a variety of situations. <input type="checkbox"/> Student attempts to demonstrate good health behaviors. <input type="checkbox"/> Student is willing to try and isn't negative towards health.
<p>“Poor” or 1 point</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Student does not understand the health concepts presented. <input type="checkbox"/> Student can't apply health skills. <input type="checkbox"/> Student refuses to change health behaviors for the better. <input type="checkbox"/> Student has a poor attitude towards health.

Home Connection - Parental Involvement Evaluation Rubric

Read each box below and determine if the completed home connection activities and parental involvement meets the cognitive, behavioral, and attitudinal outcomes listed. Make your decision based on overall performance.

Communication is key in encouraging parental involvement. Recognize parental involvement and express your appreciation on a regular basis.

<p>“Excellent” or 4 points</p> <p><i>Parent(s)...</i></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Is always informed and involved in school health and physical education programs and activities. <input type="checkbox"/> Participates in home and school health and physical education activities on a regular basis. <input type="checkbox"/> Always demonstrates good health attitudes and behaviors. <input type="checkbox"/> Is a good role model.
<p>“Good” or 3 points</p> <p><i>Parent(s)...</i></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Tries to stay informed and involved in school health and physical education programs and activities. <input type="checkbox"/> Participates in home and school health and physical education activities most of the time. <input type="checkbox"/> Demonstrates good health attitudes and behaviors most of the time. <input type="checkbox"/> Tries to be a good role model and sets good examples.
<p>“Average” or 2 points</p> <p><i>Parent(s)...</i></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Is somewhat informed and involved in school health and physical education programs and activities. <input type="checkbox"/> Sometimes participates in home and school health and physical education activities. <input type="checkbox"/> Attempts to demonstrate good health attitudes and behaviors. <input type="checkbox"/> Attempts to set good examples.
<p>“Poor” or 1 point</p> <p><i>Parent(s)...</i></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Is uninformed and not involved in school health and physical education programs and activities. <input type="checkbox"/> Never participates in home and school health and physical education activities. <input type="checkbox"/> Doesn't demonstrate good health attitudes and behaviors. <input type="checkbox"/> Is not a good role model.

Middle School Subscribers also have access to the Healthy and Wise Monthly Program. These issues support lessons in the Healthy and Wise Strength, Conditioning, and Wellness Guide.

**Additional Resources Available Online for
The Healthy and Wise Monthly (Elem./Middle/Family)
Publications www.caprockpress.com**

Teachers

- Weekly Sample PE Lesson Plans
- Scope and Sequence
- Using HEALTHY & WISE Within and Across the Grade Levels
- Changing Health Behaviors
- Reading, Writing, Math, and Science Skills
- Healthy and Wise Classroom Centers
- Healthy and Wise Online Curriculum Strategies

Assessment and Planning Tools

- Elementary/Middle School Health Index - Assessment and Planning Tools
- MyPyramid Nutrition Resources and Planning Tools
- MyPyramid Worksheet/Log
- Anatomy of MyPyramid
- MyPyramid Mini Poster
- Healthy Cafeteria Checklist and Action Plan
- Healthy Educator's Checklist
- District Coordinated School Health Accountability Checklist
- Coordinated Health Rubric
- Health Knowledge and Skills Evaluation Rubric
- Physical Education Rubric
- Recess Rubric
- General Rubric
- Parental Involvement Rubric
- Health/PE Presentation Rubric

- Student Portfolio Form
- Weekly Lesson Planning Form **(Texas)**
- Weekly Lesson Planning Form **(Generic)**

Correlations for Monthly Publications

- National Health Standards
- National Association for Sport and Physical Education
- Texas (TEKS/TAKS) – Health, Physical Education, Reading, Writing, Math, and Science

Students

- MyPyramid.gov Resources
- Food/Exercise Diary/Journal

Parents

- Monthly Parent Letters – English/Spanish

- c. Layers of clothing
 - d. New running shoes
8. When the temperature soars to what range is it a good idea to exercise in the morning or late evening?
- a. The 60s
 - b. The 70s
 - c. The 80s
 - d. The 90s
9. True or False: Clothing worn on hot days should be loose fitting, light colored, and lightweight.
10. The mildest form of heat injury, which consists of painful muscle cramps and spasms, is known as what?
- a. Heat Exhaustion
 - b. Heat Cramps
 - c. Heat Stroke
 - d. Heart Attack
11. Heat Exhaustion results from a loss of water and _____ in the body.
- a. Salt
 - b. Blood Sugar
 - c. Potassium
 - d. Sweat
12. True or False: Heat stroke is not life-threatening and does not require immediate medical attention.
13. Friends or family that exercise together are usually more _____ to their fitness routine and help keep each other accountable.
- a. Aware
 - b. Punctual
 - c. Dedicated
 - d. Excited
14. Heat exhaustion occurs when the body is unable to _____ itself properly.
- a. Heat

- b. Cool
- c. Hydrate
- d. None of the above

15. For environmental safety, it is important to have fuel-burning appliances checked how often?

- a. Once every five years
- b. Once every two years
- c. Once a year
- d. Once a month

Unit 7 Test – Answer Key

1. We are especially impacted by the chemical and biological hazards in what three areas of the environment?

c

- a. Air, Water, and Plants
- b. Water, Air Conditioning, and Soil
- c. Air, Water, and Soil**
- d. None of the above

2. **True** or False: We must work together to improve and protect our environment to reduce and prevent environmental hazards. **True**

3. List three (3) of the items on the environmental health checklist that can keep our environment safer and healthier.

(Refer to list in Healthy and Wise article and accept correct responses)

4. The abbreviation EPA stands for _____.

b

- a. Environmental Progress Agency
- b. Environmental Protection Agency**
- c. Environmental Pursuit Agency
- d. Environmental Purification Agency

5. According to the environmental health checklist, it is important to avoid fish containing high levels of _____.

d

- a. Lead
- b. Salt
- c. Potassium
- d. Mercury**

6. True or **False**: Extreme temperatures in the winter or summer do not hamper physical activity. **False**

7. Wearing _____ is the best way to dress for exercising in cold weather.

c

- a. A tank top
- b. A sweater
- c. Layers of clothing**
- d. New running shoes

8. When the temperature soars to what range is it a good idea to exercise in the morning or late evening?

d

- a. The 60s
- b. The 70s
- c. The 80s
- d. The 90s**

9. **True** or False: Clothing worn on hot days should be loose fitting, light colored, and lightweight. **True**

10. The mildest form of heat injury, which consists of painful muscle cramps and spasms, is known as what?

b

- a. Heat Exhaustion
- b. Heat Cramps**
- c. Heat Stroke
- d. Heart Attack

11. Heat Exhaustion results from a loss of water and _____ in the body.

a

- a. Salt**
- b. Blood Sugar
- c. Potassium
- d. Sweat

12. True or **False**: Heat stroke is not life-threatening and does not require immediate medical attention. **False**

13. Friends or family that exercise together are usually more _____ to their fitness routine and help keep each other accountable.

c

- a. Aware
- b. Punctual
- c. Dedicated**
- d. Excited

14. Heat exhaustion occurs when the body is unable to _____ itself properly.

b

- a. Heat
- b. Cool**
- c. Hydrate
- d. None of the above

15. For environmental safety, it is important to have fuel-burning appliances checked how often?

- a. Once every five years
- b. Once every two years
- c. Once a year**
- d. Once a month

c