

RISK MANAGEMENT

HEALTH RISKS

Level:

Grades 9-12.

Purpose:

The purpose is to identify and investigate health risks so that students maintain good health.

Content Standards:

This unit covers Science Standards Unifying Concepts and Processes, and Science in Personal and Social Perspectives.

Major Concepts:

Systems, order and organization, Evidence, models, and explanations, Change, constancy, and measurement, Personal and community health, Natural and human-induced hazards.

Overview:

This lesson focuses on health risks using four learning activities regarding causes of death, daily personal risks, substance abuse, and mental health. All the learning activities will take from 4 to 12 class periods to perform. Each activity has a performance task that assesses the applied skills in individual or group ways. All tasks and assessments may be scored by rubrics for diagnostics and reporting. (See Graphic Organizers-Teachers in Teacher Resource Center.)

Introducing the Unit:

Preview the lessons on Health Risks by introducing the skills and concepts to be learned and how these skills will be used in the lesson activities. Concepts/terms we will encounter as we learn about health risks thinking are substance abuse and mental health.

Basic Skills Applied In This Lesson

MATHEMATICS SKILLS	ACT 1	ACT 2	ACT 3	ACT 4
statistics	X	X	X	X
use numbers to achieve mathematical meaning	X	X	X	X
represent and analyze relationships using tables, verbal rules, equations, and graphs	X	X	X	X

LANGUAGE ARTS SKILLS	ACT 1	ACT 2	ACT 3	ACT 4
applies technical information	X	X	X	
makes inferences or predicts future events	X			
stories	X			
log		X		
plans		X		
evaluations		X		
posters			X	
songs				
poem				

LEARNING ACTIVITY 1

Causes of Death

What Are the Greatest Health Risks?

Objectives:

Students will apply the Mathematics concepts of representing and analyzing relationships using tables and graphs; and the Language Arts skills of drawing graphs, and writing stories to explore the most common causes of death.

Performance Task:

Students will research to find the most common causes of death over time and make a graph comparing them. They will make predictions about future changes and write a science fiction story based on their predictions.

Structures for Learning:

Organizing for the Task:

- Students will work in small groups to do research. Each student will make graphs and write a science fiction story. The whole class will discuss the results.

Creating Curiosity:

Tell students to work in small groups to do the following:

Use the ACC resources to find the most common causes of death in the United States. How have they changed with time? Make a graph comparing them.

How do the causes of death in the United States compare with those other parts of the world? Demonstrate your answer with a graph or chart. Explain why the most common causes of death in the U.S. differ from those in other countries?

What do you think will be the most common cause of death 50 years from now? Write a short story with your prediction as its theme.

Selecting/Developing Rubrics:

Conducting the Investigation/Inquiry:

Presenting and Discussing the Findings:

Applying the Rubrics:

Reflection/Evaluation:

- Use the following question during whole class or small group discussions.

How did writing a science fiction story about what you learned affect your learning?

LEARNING ACTIVITY 2

Daily Risks Log

What Personal Risks Do You Take Each Day?

Objectives:

Students will apply the Mathematics concepts of representing and analyzing relationships using graphs; and the Language Arts skills of drawing graphs, research, evaluations, and writing logs to investigate their daily personal risks.

Performance Task:

Students will make personal daily risk logs, establish criteria for comparing risks, and make risk comparison charts. They will evaluate their personal risks to determine their greatest risk.

Structures for Learning:

Organizing for the Task:

- Each student will make a personal risk log and a risk comparison chart, and determine his/her greatest risk. Students will work in small groups to do research about comparing risks, and to establish criteria for evaluating risks. The whole class will discuss the results.

Creating Curiosity:

- Tell students to do the following:
- Make a log for one day of the personal risks you encounter, noting the time you encountered each risk and the activity you were engaged in at the time.
- From your log determine what time of day you have the most risks.
- Develop criteria for quantifying and weighing your daily risks. Use the ACC resources while developing your criteria, to compare risks for various behaviors. Make a chart that compares different types of risks. Use your criteria to decide what is the most dangerous thing you do.

Reflection/Evaluation:

- Use the following question during whole class or small group discussions.

Did keeping the risk log help you to discover any risks in your life that you had not previously considered?

LEARNING ACTIVITY 3

Substance Abuse

What Are the Risks of Substance Abuse?

Objectives:

The students will apply the Mathematics concepts of representing and analyzing relationships using tables and graphs, and the Language Arts skills of making a poster to learn about the risks of substance abuse.

Performance Task:

Students will make a poster about substance abuse.

Structures for Learning:

Organizing for the Task:

- Students will work in small groups to make the poster.

Creating Curiosity:

- Tell students to work in small groups to do the following:
- Choose a substance such as drugs, alcohol, or tobacco, and use the ACC resources to find out information it. Make a poster about a substance such as drugs, alcohol, soda, or tobacco. Include information about how the substance affects health and where to get help for addiction. Use number in the form of statistics and charts to illustrate your poster.

Selecting/Developing Rubrics:

Conducting the Investigation/Inquiry:

Presenting and Discussing the Findings:

Applying the Rubrics:

Reflection/Evaluation:

The Product

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The Process

- What kinds of ideas did the making the chart give you about ways to educate persons about substance abuse.
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LEARNING ACTIVITY 4

Mental Health

The Mind and Body Connection

Objectives:

The students will apply the Language Arts skills of research, drawing cartoons, writing songs or poems, answering questionnaires, and writing plans.

Performance Task:

Students will research factors that cause mental stress and how stress affects the human body. They will draw cartoons, write songs or poems, answer and tally a stress questionnaire, and write a stress reduction plan.

Structures for Learning:

Organizing for the Task:

- Student will work with partners to conduct research about stress. Each student will draw a cartoon, write a song or poem, answer and tally a stress questionnaire, and write a stress reduction plan. Students will work with partners to evaluate the stress reduction plans. The whole class will discuss the results.

Creating Curiosity:

- Tell students to do the following:
- Use the ACC resources to investigate factors that affect levels of mental stress in people and how mental stress affects the human body. In your research find answers to the following questions:
- How does mental stress affect the body? How is stress helpful? How can stress be reduced?
- Draw a cartoon figure that illustrates which parts of the body may be affected by stress, and what symptoms may occur due to stress. Write a song or poem that increases stress, and one that reduces stress.
- Use a stress questionnaire to determine your personal level of stress. Make a plan to reduce stress in your life. Show the plan to your partner. After a few days, report back to your partner on how well your plan is working.

Reflection/Evaluation:

The Product

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The Process

- Did this activity help you discover any factors causing stress in your life?
Was your stress reduction plan successful?

