MAP MAKING

OBJECTIVES:
- Students will appraise different travel routes and select the most appropriate choice.
- Students will demonstrate their understanding of maps by using legends, symbols, orientation arrows, grid systems, and scale to create an accurate map.
- Students will translate their familiar surroundings to a two-dimensional rendering.

TIME/DURATION: 1–2 weeks

MATERIALS:
- Pedometers (students may supply their own, but you should have a few on hand so they can measure distance in steps)
- Map of your community to show students

INSTRUCTIONS:
1   After using your community map to explain maps and all the parts of a map to students, instruct them that they'll be creating a map of their own.

2   Students should consider all possible routes to school and select the one that best balances safety and convenience. Once they've selected a route, they'll need to walk the route with a pedometer to determine the distance in steps.

3   With this route as the centerpiece, students will create a map with their homes at one end and the school on the other (students who live too far from school will use the appropriate park-and-walk site as their starting point).

4.   The map should include a compass rose to convey orientation, symbols to represent roads and landmarks, a legend to translate the symbols, and a scale bar that conveys that real distance in steps to the map distance in inches. Translating distance may be tricky for students. This may be something that the class learns to do as a group.

5.   Between the two locations, students should note major roads, important historical landmarks, parks, stores, churches, libraries, etc.

6.   On the due date, each student should present his or her map to the class and tell a few things about the landmarks on the route.

7.   Next, discuss the number of steps required to walk the route and how that compares to the 10,000 minimum steps they should each walk per day.

TIME IN A BOTTLE

OBJECTIVES:

• Students will create an imaginative story based on the real-life route between their house and school.

• Students will collect items as "evidence" to substantiate their experiences to classmates.

TIME/DURATION: 1 week

MATERIALS:

• A plastic milk jug for each student (students can provide)

INSTRUCTIONS:

1 Instruct students to create a fictional adventure story about biking or walking the route between their house and school.

2 Once they've completed their stories, students should spend the rest of the week collecting "evidence" from the route to substantiate the story. For example, if one student writes about having to climb a tree to escape a monster, he could collect leaves and bark from the tree. If a student writes about meeting a talking frog, she could collect pond water and lily pads.

3 Students should assemble all their "evidence" in a clear plastic milk jug. They may also add their own touches such as pictures of story characters, miniature toys that convey an action used in their story, etc. They should use their imagination to make the milk jug as clear a visual conveyance of their story as possible.

4 On the last day of the week, have students bring their milk jugs to the front of the class and present their story.

COMIC STRIP

OBJECTIVES:

• Students will compose an original story that teaches a lesson about walking/biking safety.

• Students will illustrate the story in comic form.

• Students will present the story to younger students, thereby teaching them about walking/biking safety.

TIME/DURATION: 1 hour

MATERIALS:

• A copy of the provided My Comic Strip sheet for each student

INSTRUCTIONS:

1   Print out one comic book sheet for each student.

2   Instruct students to write a 6-frame comic story on a separate sheet of paper. The story should teach a lesson about walking/biking safety.

3   Once their story is complete, they may begin illustrating the story on the comic book page.

4   When the illustrations are complete, assign each student in your class to a student in kindergarten or first grade. Your students should use the comic story they've created to teach a lesson about biking/walking safety to the younger students.

MY COMIC STRIP

Title:

PHYSICAL FITNESS REPORTS

OBJECTIVES:

• Students will research and analyze information about health through activity and healthy diet and about the current obesity epidemic.

• Students will draft a research paper on the topic.

• Students will make large-scale recommendations on halting the obesity epidemic in the United States.

TIME/DURATION: 3 weeks

MATERIALS:

• None

INSTRUCTION:

1 Give students some brief background information about the current obesity epidemic among children in the United States.

2 Task them with finding new solutions.

3 Assign students a 5- or 6-page report about obesity, its causes, ways to prevent and cure it, and why the United States is currently experiencing an epidemic.

4 The final portion of the report should consist of recommendations from the students on eliminating the obesity epidemic and promoting better eating, more activity, and overall better health among children.

5 Upon completion, instruct each student to develop a 5-minute presentation with visual aids about one of the recommendations.

BICYCLE SAFETY BASICS

Instructions:

Read the following passage about bicycle safety and then answer the questions below.

SMART BIKING

Safe behavior is very important for bicyclists. When you're riding in an area where there are cars, there is always the danger of an accident. Knowing the rules of bicycle safety can keep you from getting hurt.

One way to ensure your safety while biking is to always wear a certified bike helmet. Make sure the helmet is on properly. It should sit on your head parallel to the ground. Helmets should never tip too far back or too far forward. The helmet straps should form a "V" shape around each ear.

A second smart biking tactic is to be visible to cars. Your bike should have reflectors so cars can see you at night. Try not to bike alone. Two bikes are easier to see than one.

The last way to bike safely around cars is to ride predictably. Cars should always know what you're going to do next. One way to ride predictably is not to make any sudden changes in your course. Another way to ride predictably is to use hand signals.

Now that you know some smart biking tips, be sure to use them to stay safe next time you're on your bike.

Questions:

1. Why is it important to know the rules of bike safety?

2. What is the proper way to wear a bike helmet?

3. Why are reflectors important?

4. What are two ways to ride predictably?

FEEL THE BURN!

Instructions:

Based on the facts presented, solve the problems below. Round your answer to two decimal places.

Fact: A calorie is a measurement of energy. Calories are burned through physical exercise. Calories are consumed from food.

Fact: In order to lose weight, you must burn more calories than you consume.

Fact: 3,500 calories = 1 pound. If you burn 3,500 calories, you lose a pound. If you consume 3,500 calories, you gain a pound.

PROBLEM 1: ANGIE

Angie walked to and from school all five school days this week. She also played soccer at recess three days this week and played basketball on the other two school days and on Saturday and Sunday. Angie burned a total of 2,200 calories on the days she played basketball, and 2,500 calories on the days she played soccer. Each day, Angie consumed 1,800 calories.

A) How many calories did Angie consume this week?

B) How many calories did Angie burn this week?

C) Did Angie gain or lose weight? How much?

PROBLEM 2: ROBERT

Robert rode his bike to and from school twice this week. His parents drove him three days. On the days he biked, Robert played softball with friends after school. When he got a ride, he played computer games. On the weekend, Robert went hiking with his father one day and played on his computer one day. On the days that Robert played computer games, he burned 1,800 calories. On the days he played softball, he burned 2,500 calories. On the day he went hiking, he burned 2,800 calories. Each weekday, Robert consumed 2,200 calories. On the weekend, he consumed 2,500 calories each day.

A) How many calories did Robert consume this week?

B) How many calories did Robert burn this week?

C) Did Robert gain or lose weight? How much?

PROBLEM 3: COMPARISON

A) In a 40-week school year, how much will Robert have gained?

B) In a 40-week school year, how much will Angie have lost?

C) What can Robert learn from Angie?

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Problem 1: Angie

Angie walked to and from school all five school days this week. She also played soccer at recess three days this week and played basketball on the other two school days and on Saturday and Sunday. Angie burned a total of 2,200 calories on the days she played basketball, and 2,500 calories on the days she played soccer. Each day, Angie consumed 1,800 calories.

A) How many calories did Angie consume this week?

12,600

B) How many calories did Angie burn this week?

16,300

C) Did Angie gain or lose weight? How much?

Angie lost. By burning 3,700 calories, Angie lost 1.06 pounds.

Problem 2: Robert

Robert rode his bike to and from school twice this week. His parents drove him three days. On the days he biked, Robert played softball with friends after school. When he got a ride, he played computer games. On the weekend, Robert went hiking with his father one day and played on his computer one day. On the days that Robert played computer games, he burned 1,800 calories. On the days he played softball, he burned 2,500 calories. On the day he went hiking, he burned 2,800 calories. Each weekday, Robert consumed 2,200 calories. On the weekend, he consumed 2,500 calories each day.

A) How many calories did Robert consume this week?

16,000

B) How many calories did Robert burn this week?

15,000

C) Did Robert gain or lose weight? How much?

Robert consumed more calories than he burned, so he gained 0.29 pounds.

Problem 3: Comparison

A) In a 40-week school year, how much will Robert have gained?

11.6 pounds

B) In a 40-week school year, how much will Angie have lost?

42.4 pounds

C) What can Robert learn from Angie?

Consuming fewer calories and being more active is the only way to lose weight!