

1: Quarter Conservation

Based on the California quarter reverse



OBJECTIVE

Students will define and discuss the concept of conservation. Students will identify ways to conserve energy, water, paper, and money at home and at school.



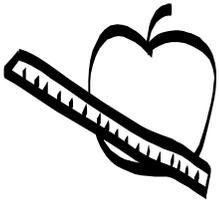
MATERIALS

- Single-serving class snack (such as: granola bars, graham crackers, cookies, etc.).
- Chalkboard/chalk
- Clock with second hand
- Chart paper/markers
- 1 copy of an age-appropriate text that relates to John Muir, such as:
 - *Stickeen: John Muir and the Brave Little Dog* by John Muir and Donnell Rubay
 - *John Muir: Man of the Wild Places* by Carol Greene
 - *John Muir (People Who Made a Difference)* by David and Patricia Armentrout
- 1 overhead projector (optional)
- “California Quarter Reverse” page
- 1 class map of the United States
- Sink (optional)
- Light switch (optional)
- 1 piece of paper
- Several U.S. coins of any denomination
- “Conservation Is Cool” page
- Crayons
- Scissors
- Laminating materials
- Tape



PREPARATIONS

- Make copies of the “Conservation Is Cool” page (1 per student).
- Make overhead transparencies of the following:
 - “California Quarter Reverse” page (or photocopy)
 - “Conservation is Cool” page
- Enlarge, color in, laminate, and cut out each box on the “Conservation Is Cool” page.



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- Prepare or select a class snack, taking student allergies and diet needs into account.
- Locate an age-appropriate text relating to John Muir (see examples under “Materials”).
- Place the U.S. coins in your pocket for Session 2.



GROUPINGS

- Whole group
- Pairs
- Individual work



CLASS TIME

Two 20- to 30-minute sessions



CONNECTIONS

- Science
- Social Studies
- Art
- Mathematics



TERMS AND CONCEPTS

- Quarter
- Reverse (back)
- John Muir
- Conserve
- Energy



BACKGROUND KNOWLEDGE

Students should have a basic knowledge of:

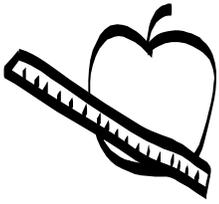
- Nature
- Energy as a paid resource
- Tallying/tally marks



STEPS

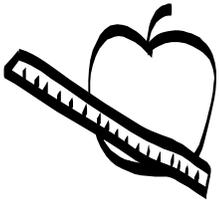
Session 1

1. Explain to the students that they are going to play a game. This game involves eating a snack, but there are special rules. The main rule is: No student can take a bite from his or her snack until the teacher says so.



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2. Equally distribute a class snack to each student.
3. Create a 3-column chart on the board. Label the columns “Minute 1,” “Minute 2,” and “Not completed,” respectively.
4. Allow the students to take a bite of their snacks at fifteen- or thirty-second intervals for two minutes. Direct the students to individually stand up when they have completed their snacks.
5. During the activity, keep a tally of how many students finished eating their snacks and stood up during the first minute and second minute and how many did not finish at all. Place these tally marks in their respective columns on the chart on the board.
6. After two minutes, direct the students to take their seats. Use the tally chart to determine if all the students completed their snacks at the same time. Responses should reflect that students finished their snacks at different times, because some students stood before others and some didn’t finish their snacks, as shown by the tallies in the chart’s third column.
7. Have the students discuss why some students finished their snacks before others. If necessary, lead students to the idea that students who took larger bites finished their snack first.
8. Ask the students to consider how they could make their snacks last longer. The students should respond that taking smaller bites would make their snacks last for a longer period of time.
9. Write the word “conserve” on a piece of chart paper. Say the word aloud and have the students repeat after you. Ask students to guess what they think this word means.
10. Explain that, when we conserve something, we try to make it last longer by saving it. Ask the students how they can conserve their snacks. The students should arrive at the idea that taking smaller bites would conserve their snacks.
11. Have the students list other things that they might want to conserve at home or at school. Student responses may include money, time, paper, electricity, recycling, etc. List student responses under the word “conserve” on the chart paper.
12. Introduce the idea that there are many ways to conserve. Explain to the students that they will be learning about a very important man named John Muir who wanted to conserve things in nature like trees, plants, and animals.
13. Explain that John Muir was a man who loved nature and wanted to make sure that the mountains and lakes were around for a long time.
14. Introduce the selected text. As a group, preview the text and illustrations to generate observations about what might be occurring at different points in the text.
15. Read the selected text aloud.

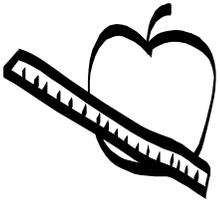


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16. Ask the students to discuss why John Muir wanted to conserve (save) the lakes, mountains, plants, and animals. The students should respond that John Muir wanted to conserve (save) nature so that people would always be able to enjoy it.

Session 2

1. Describe the 50 State Quarters[®] Program for background information, if necessary, using the example of your own state, if available. Then display the transparency or photocopy of the California quarter reverse. Locate California on a classroom map. Note its position in relation to your school's location.
2. Have the students identify various elements on the coin. The students should identify a mountain, a tree, a man, and a bird. Ask them to predict who the man on the coin is. If necessary, explain that the man on this coin is John Muir. Ask students to recall what they learned in the previous session about John Muir and how he felt about things like mountains, trees, and birds. Student responses should reflect that John Muir wanted to conserve (save) nature so that people would be able to enjoy it for a long time.
3. Review with students the brainstorming list from the previous session about different ways to conserve (save).
4. Explain that there are even more ways to conserve (save) at home and at school. Challenge the students to guess what they are by giving them hints. First, turn the water in the sink on (or pretend to) and walk away. Students should guess that water is something to conserve at school and at home. Discuss why it is important for students to turn off the water when they are done using it. The students should arrive at the idea that we want to conserve water.
5. Flick the lights in the classroom on and off. The students should respond that lights or electricity is something that we want to conserve (save). Discuss why the lights should be turned off when they aren't in use. If necessary, explain that electricity is energy and energy costs money. The students should arrive at the idea that we want to conserve money and energy.
6. Hold up a piece of paper. The students should guess that paper is something they can conserve (save). Ask the students to discuss how they can conserve (save) paper. Students should respond that they can write on both sides of a piece of paper and they can only take as much paper as they really need.
7. Jingle the coins in your pocket. The students should guess that money is something they can conserve (save). Ask the students to discuss why it might be important to conserve (save) money. Student responses should reflect that saving money allows people to make larger purchases, have money for emergencies, etc.
8. Display an overhead transparency of the "Conservation Is Cool" page. Have the students repeat after you as you read each box aloud several times. Execute the appropriate action while reading each box.



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9. Distribute one “Conservation Is Cool” handout, crayons, and scissors to each student. Direct the students to color in the pictures in each of the boxes. Explain that, once the students have finished coloring, they should cut each box out and practice explaining what each box means to a partner.
10. Allow an appropriate amount of time for the students to complete the activity.
11. Explain to the students that they will be able to use these boxes as a reminder of what they can conserve (save) in the classroom. Using the enlarged, laminated copies of each box on the “Conservation Is Cool” page, have the students work together to determine where each box should be placed in the classroom. Affix each box in the appropriate place with tape.
12. Explain to the students that, for homework, they will explain the idea of conservation to a parent or guardian. The students can take their colored boxes home to tape to the appropriate appliances as a reminder for their family to conserve (save) water, paper, electricity, and money.



ENRICHMENT/EXTENSIONS

Have students brainstorm different places in the school where they could tape their boxes as a reminder to conserve (save) money, electricity, paper, water, etc. List student responses on the board. Select a few of the students’ designated locations (such as the library, the principal’s office, the cafeteria, etc.). Escort students to these locations and allow them to affix their reminders in an appropriate place.

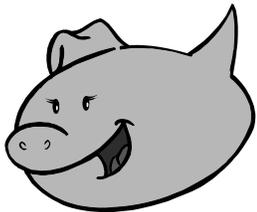


DIFFERENTIATED LEARNING OPTION

Have students work in pairs on the “Conservation Is Cool” handout.

CONNECTION TO WWW.USMINT.GOV/KIDS

In Plinky’s Create-a-Card game, students can extend their knowledge of conservation as they try to plan for and conserve their budget by designing a printable greeting card! (www.usmint.gov/kids/index.cfm?fileContents=games&pick=9)

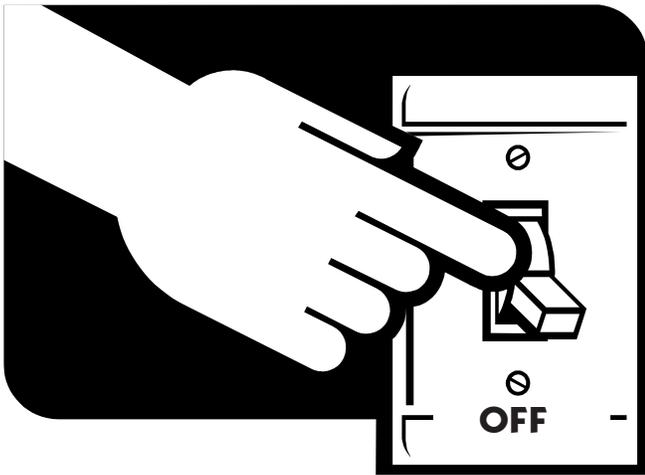


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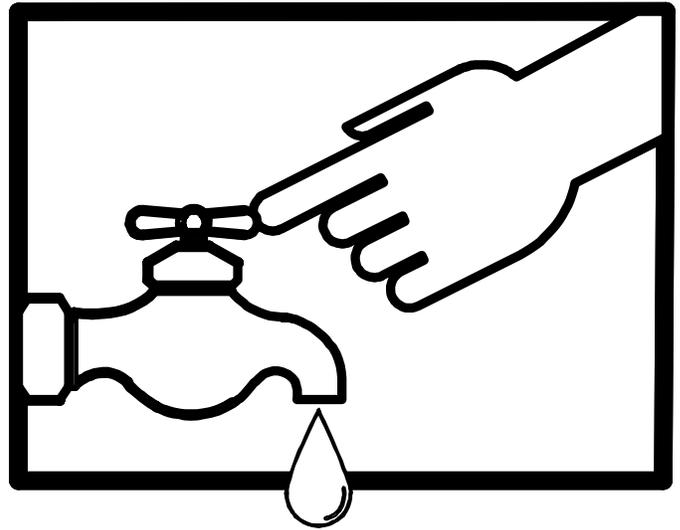


Conservation Is Cool!

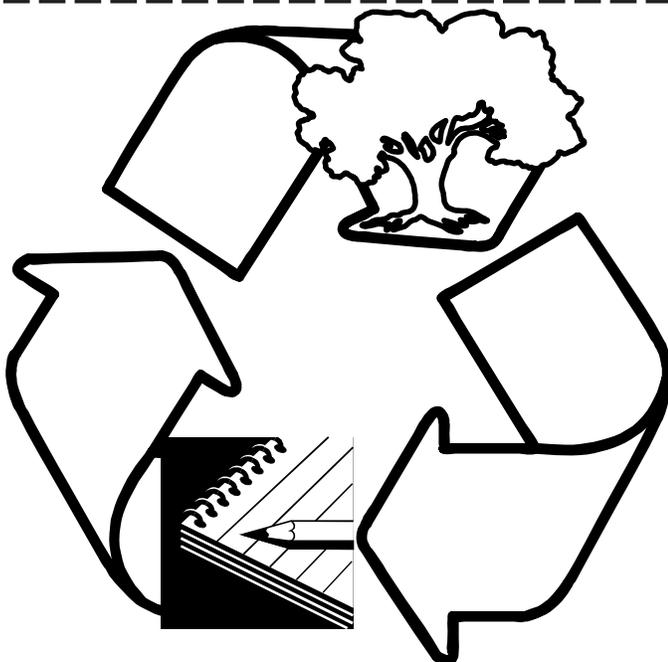
Directions: Color in the items in each box. Then, cut each box out and practice explaining to a partner what each box means.



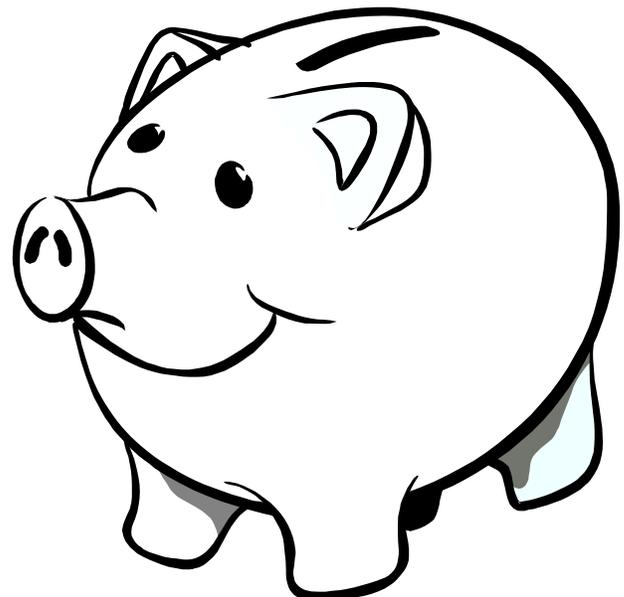
Conserve Electricity



Conserve Water



Conserve paper



Conserve money



California Quarter Reverse

