

Recycling

Strand Earth Resources

Topic Investigating recycling

Primary SOL K.11 The student will investigate and understand that materials can be reused, recycled, and conserved. Key concepts include

- materials and objects can be used over and over again;
- everyday materials can be recycled;
- water and energy conservation at home and in school helps ensure resources are available for future use.

Related SOL K.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which

- a question is developed and predictions are made from one or more observations;
- objects are described both pictorially and verbally.

Background Information

Natural resources such as water, trees, and coal should be conserved. Recycling is one way to conserve these resources. Recycling takes used objects and turns them into new materials. Examples include turning newspaper into drawing and writing tablets, turning aluminum cans into new cans, and plastic bottles into garden furniture and clothing.

Another way to conserve is by reusing materials. Examples include using dishes and utensils that are washed after use, rather than using paper plates and plastic utensils and throwing them away after use. Recycling and reusing help to reduce the amount of trash that is thrown away and also help preserve resources for future use.

Some natural resources cannot be recycled or reused. When creating electricity or heat by burning coal, the coal is used up. It is important to conserve electricity by turning off things such as lights and computers when not in use to conserve coal and other nonrenewable natural resources used to generate electricity.

Materials

- Students' books about recycling and taking care of the Earth
- Paper
- Crayons
- A bag of clean garbage items ("trash"), such as glass bottles, plastic bottles, orange peel, old batteries, paper, mail, plastic straws, plastic butter tubs, paper towel tubes, egg carton, popsicle stick

Vocabulary

recycle, reuse, conserve, water, energy

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

1. Read a story about how living things on Earth are affected by litter. Ask students what can be done to stop problems caused by litter and trash. Talk about the meaning of the words *reuse* and *recycle*.
2. Place the bag of “trash” on a table covered with paper. Pour out contents of the bag, and let students look at them. Ask students which can be recycled and which could be reused. Ask how they could be reused.
3. Read a book about Earth and how we can keep it clean and beautiful. Ask questions such as: “What can we do with all the litter? How can we conserve energy? What can we do with our lights and electric appliances? How can carpools help? How can we conserve water when brushing teeth, running the shower, or filling the tub? How can each person help? How can *you* help?”
4. Have students draw or paint pictures of Earth. Have them write or dictate ways they can help the Earth and preserve its resources for future use.

Assessment

- Have students fold a piece of paper in half. On one half, have them draw items that can be recycled, and on the other half, items that can be reused.

Extensions and Connections (for all students)

- Have students create posters that remind others to recycle and reuse. Display them around the school.
- Have students make pieces of art out of recycled and reused materials. As a class project, create a “Re-Museum” in part of the classroom or elsewhere in the school, in which all pieces on display are made from recyclables.
- Take students on a field trip to a recycling plant or center. An alternative would be watching a video clip about what happens at a recycling plant.
- Help students start a recycling project at your school. For example, collect paper from classrooms, cans from the teacher’s room, or juice pouches in the cafeteria.

Strategies for Differentiation

- Hand out an item from the “trash” to each student. Let each student use various materials to create a new way to reuse the item.
- Using a computer, classify pictures of items into those that can be reused and those that can be recycled.
- Use an electronic talking graphic organizer with pictures or symbols for classroom work.
- Explore concrete items that demonstrate the concept of recycling (e.g., tree into paper).