

Grade 1, Science and Technology

Source: Adapted from Mr. Collinson's Grade 1 class, Materials, Structures, and Every Day objects, Lesson 21, Halton District School Board

## DESCRIPTION

This lesson introduces students to the concept of the 3Rs and invites them to consider the waste they produce and potential reuses of everyday objects.

## CURRICULUM LINKS - SCIENCE \& TECHNOLOGY, GRADE 1

Understanding Structures \& Mechanisms - Materials, Objects, and Everyday Structures
Overall Expectations: 1, 3
Specific Expectations: 1.1, 1.2, 2.2, 2.3, 3.5, 3.7, 3.9

## PLANNING NOTES

## Materials

- Single-use water bottle
- 5 objects (i.e. yogurt cup, pop can, egg carton, tissue box, disposable cup, envelope, juice box, old clothing, old toys)
- What Do We Do Now? (Appendix 1)


## Learning Skills \& Work Habits

Independent work, responsibility, organization

## Prior Learning

Reducing means paying attention to the things we buy and avoiding things we will want to throw away later. Reusing reminds us that things can be used over and over again; doing this means we make less waste. Recycling is a way to sort paper, cardboard, and newspaper, and packaging made of glass, plastic, or aluminum so that it can be manufactured into new things.

## Recommended Class Time

- 1 period


## TEACHING/LEARNING STRATEGIES

1. Hold up a single-use water bottle and invite students to explore the topic of waste by asking questions about where the water bottle comes from and where it ends up. For example: What is this object and what is it used for? What material is it made from? Where does the material come from? What do we do with this object when we have finished using it? Why is it important to avoid creating garbage?
2. Use a concept map to draw this relationship for students to visualize. Place the item "water bottle" in the middle and draw connections (plastic, petroleum, Earth, Iandfill,
waste) to inputs and outputs on either side. Use arrows to show the relationship between the water bottle and the inputs/outputs. This can be repeated with other items if desired.
3. Connect the discussion to the 3Rs: Reduce, Reuse, and Recycle. For reduce, highlight the amount of energy required to recycle the water bottle, which we could conserve by not purchasing it. For reuse, brainstorm additional uses for the water bottle (e.g., holding paint in art class). Consider ways to reduce our use of disposable objects (e.g., using reusable water bottles).
4. Divide students into small groups and give each group What Do We Do Now? (Appendix 1) and an object. Ask students to discuss possible uses for the object after its original use has expired. After a few minutes, rotate the object so each group has the opportunity to look at all five objects. (Hint: any objects could be used - however, consider using object that the students regularly use in school. This will help support your school waste
minimization strategies.) Some suggestions are: yogurt cup, pop can, egg carton, tissue box, disposable cup, envelope, juice box, old clothing, and old toys.
5. Bring the class back together and discuss the potential reuses for each object. Reiterate the importance of reducing waste whenever possible, and reusing and recycling everyday objects.

## EXTENSION

Waste Audit: Conduct a classroom waste audit, evaluate the results, and design a classroom waste action plan to minimize waste. Present this model to the school administration and ask them to consider implementing it school wide.

## APPENDIX

- Appendix 1 - What Do We Do Now?


APPENDIX 1
REDUCE, REUSE, RECYCLE: THE LIVES OF EVERY DAY OBJECTS WHAT DO WE DO NOW?

Names: $\qquad$

When we throw items in the garbage, they end up in landfill and pollute. We need to think a little more before we use the garbage can and come up with creative ways to reuse objects.

Look at the objects with your group. Write down your ideas of how to reuse these objects if we do not need them anymore.

Object \#1:
Ways to reuse this object: $\qquad$
$\qquad$
$\qquad$

Object \#2: $\qquad$
Ways to reuse this object: $\qquad$
$\qquad$
$\qquad$

Object \#3: $\qquad$
Ways to reuse this object: $\qquad$
$\qquad$
$\qquad$

Object \#4:
Ways to reuse this object: $\qquad$
$\qquad$
$\qquad$

Object \#5:
Ways to reuse this object: $\qquad$
$\qquad$
$\qquad$

