

Plastics in the Environment

Eco 360 Jr
Worksheet
Grade Level: 3-8



Objectives

Learners will explore how plastic waste ends up in the environment by looking for the sources of the problem. Learners will explore the main types of plastic waste that ends up in the environment.

Learning Outcomes

By completing this activity, learners will:

- Describe how plastic waste ends up in the environment
- Identify the biggest sources of plastic waste in their environment
- Identify the main types of plastic waste in their environment

Time Required: 2 – 2.5 hours

Activities

- go for a walk and see if you can find plastic discarded in your environment
- brainstorm sources of plastic waste
- learner-led inquiry

Materials

- KWL chart
- GreenLearning's spiral inquiry model handout and worksheet
- internet-enabled device

- paper and pencil
- printed map of your school/neighbourhood (teacher to print from Google Maps)
- Gloves/bags to pick up the waste you find (optional)

Prepare and Go For a Walk (20 min)

Tell your class that you will be going on a walk to look for plastic waste around your school/neighbourhood. Have them brainstorm good places to look for plastic waste.

- In pairs or small groups, use Google Maps to map out a 20-minute walking route around your school/neighbourhood that you and your class will take to look for plastic waste. You can print out this map or draw your own. (15 min)
Hint: Storm drains are a great place to look. For more information check out GreenLearning's Flood:Ed Flooding Mapping Activity:
 - <https://programs.greenlearning.ca/course/flooding-mapping-tour>
- Now that you've mapped out the area print your map out and go for your walk and see what kinds of plastic waste you find – this might be straws, cups, plastic bags, toys, etc. Pick it up if it's safe to do so! Wear gloves!
- As you walk, mark on the map with an "X" and then tally on the back of the map what you found and where; this information can be used for discussion back in the classroom

Inquiry

- Back in the classroom, follow the spiral inquiry model handout to come up with answers to these Big Questions.

Big questions: **What kinds of plastic waste do we find in our environment? Where does plastic waste in our environment come from? What happens to it? How can we prevent it?**

- Complete the inquiry by first filling out the KWL chart as a class. (15 min)
- Also, as a class, follow the steps of the spiral inquiry model: (60-90 min)
 - Spark
 - Explore and Research
 - Hypothesize and Plan

- Analyze and Check
 - Communicate and Act
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- Following the last step of the spiral inquiry, have the learners create an action plan: what is my personal action plan to prevent plastic waste from ending up in our environment? This could be in the form of a pledge or creating a PSA. Allow learners to be creative in their action plans.

Extension Activity

The mapping activity can be extended into a math (tallying, graphs, geometry) lesson.