

# RECYCLING LESSON PLANS

BROUGHT TO  
YOU BY

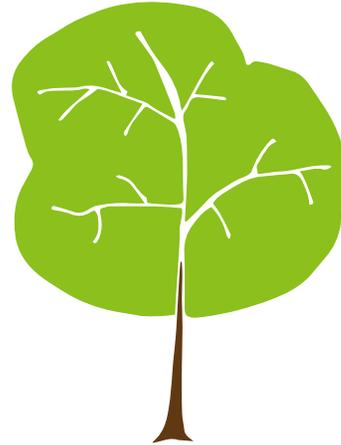


# 5E PRINTABLE LESSONS TO PROMOTE RECYCLING

Brought to you by WeAreTeachers and PepsiCo Recycling

Dear Educators,

*You're teaching a generation of kids who will have a huge impact on our environmental future. Lessons about recycling, sustainability, and eco-friendly practices are incredibly important. To help bring these important topics to your classroom, we pulled together five complete lesson plans in the popular 5E lesson format. These lessons focus on key subject*



*areas like science, technology, and language arts. Through the easy-to-implement 5E model, you'll be able to incorporate these into units you already have planned for the year.*

*For even more resources, we recommend checking out the free lessons, articles, ideas, and printables on PepsiCo Recycling's website, [PepsiCoRecycling.com](https://www.pepsico.com/recycling). You can also sign up to participate in their recycling program for schools, Recycle Rally.*

*Thanks for all you do as educators in teaching our future generation.*



## THE BASICS OF 5E

The 5E model is an easy, hands-on way to create lesson plans for your classroom. You can either choose to do the activity in a single lesson, or you can spread it out over several days or weeks.

There's no perfect or right way to do these lessons. In fact, adapting them to work for you and your classroom needs is definitely recommended. Based on your students' age, interests, or the unit you're trying to cover, always adjust to make them work for you.

Best of all, they're designed to be printed on a single 8½ x 11 sheet of paper, making it even easier to incorporate into your daily lesson plans.

**Engage:** Introduce the topic.

In the engage area, introduce your students to the topic in a clear, concise way. Make sure all your students have a strong understanding of the main concepts before moving forward.

**Explore:** Go to the lab.

Now it's time to really get hands on with the lessons. This section includes an interactive activity where students get to put their own personal touch on the project.

**Explain:** Take notes.

The notes section, where students write about what they learn, is a feature in all the projects. This will help students grasp important concepts they've been putting into practice in the lab section.

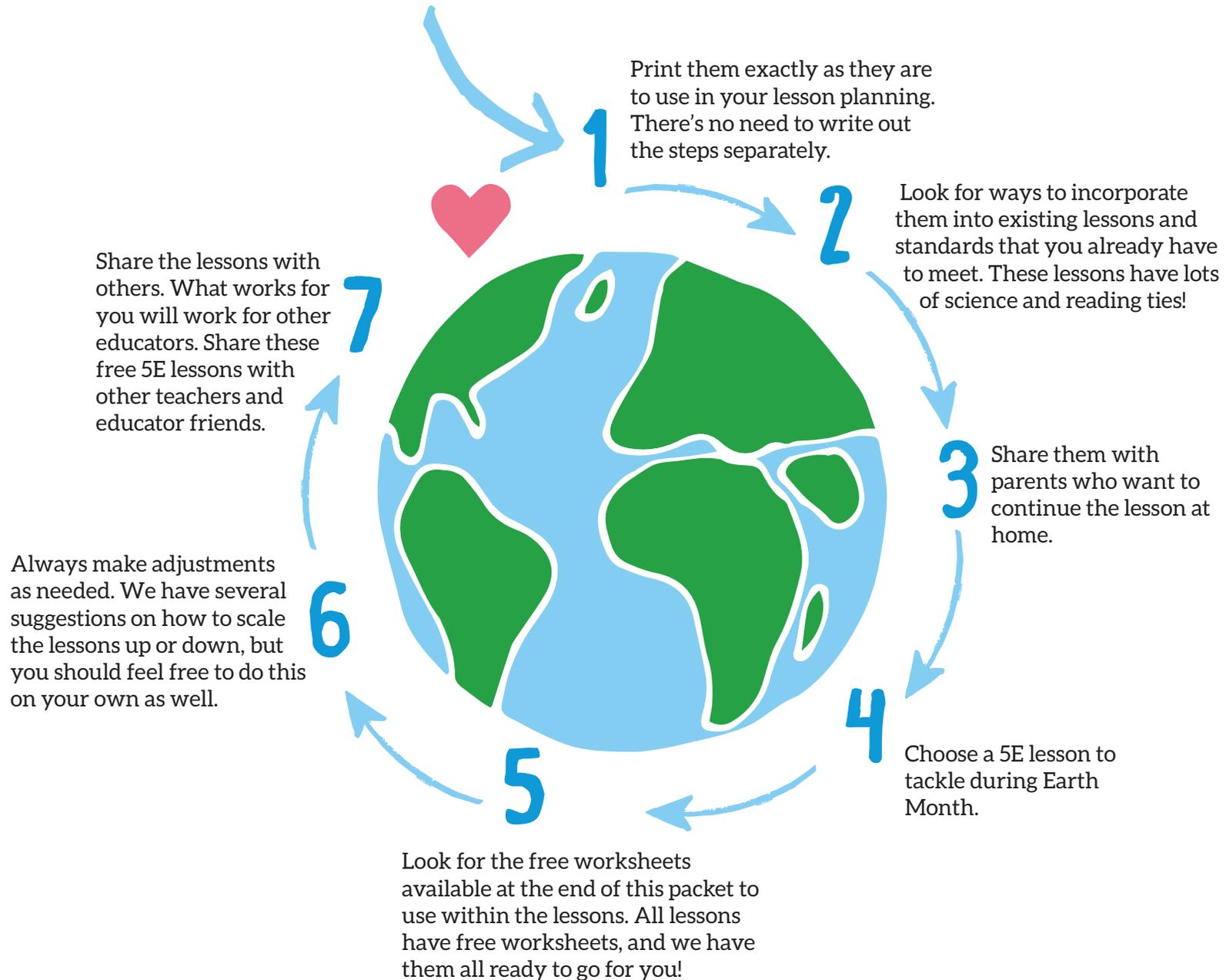
**Elaborate:** Review and extend.

This section checks for understanding, and then it encourages students (and you) to take it to the next level. What more can you do with this lesson? What questions have come up that you can tackle? This is a great place to grow.

**Evaluate:** Check for understanding.

Each lesson should have a follow-up to check for understanding. If much of your class didn't understand a key concept or takeaway, it might be time to go back to the lab or review and extend again.

# 7 TIPS FOR USING THE 5E LESSONS



## Lesson 3

# TRANSFORMING PLASTICS

### MATERIALS »

- Chart and graph paper
- Poster board
- Pens and pencils
- Markers
- “Recycling Rates” worksheet

## 1 ENGAGE: INTRODUCE THE TOPIC

**Teacher:** Introduce the “Recycling Rates” worksheet to your students. Have them complete it. Ask students why this information works well in a chart. Once students complete the worksheet and questions, review their answers. Then talk about charts in general. Start a class discussion with questions like:

- Why do we use charts or graphs?
- What kind of information works best in a chart or graph?

**Student:** Complete the worksheet by charting the additional items and answering the questions. Participate in a group conversation about your answers and charts.

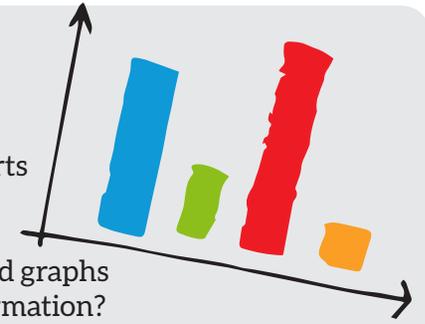
Students will study the process of transforming recycled plastic, and they'll learn how to create their own charts and graphs to present information.



Grades: 4–6

Core Concepts:  
Math, Language Arts

Key Question:  
How can charts and graphs help organize information?



## 2 EXPLORE: GO TO THE LAB

**Teacher:** Break students into small groups, giving each group a few different samples of charts and graphs of varying types and subjects. Then give the class (or individual groups) an assignment with information they need to turn into a chart or graph.

**Student:** Identify the types of graphs and charts used and the information they provide. Then use graph or chart paper to make your own with the information your teacher gave you. Present your group's original graph or chart to your classmates.

## 3 EXPLAIN: TAKE NOTES

**Teacher:** As students present their charts, explain the different charts and graphs. Go into detail about the benefits of the chosen chart.

**Student:** Write down the key takeaways from your classmates' charts. What kind of information do you like to see presented in this way?

## 4 ELABORATE: REVIEW AND EXTEND

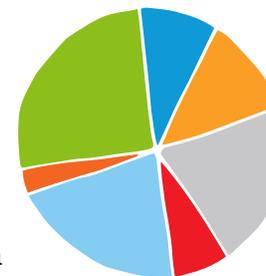
**Teacher:** Bring the discussion back to recycling. Talk to students about why it can be useful to talk about the subject of recycling through a graph or a chart.

**Student:** Discuss why this information works well in a bar graph. Could the same information be put into a pie chart or a line graph? Why or why not?

## 5 EVALUATE: CHECK FOR UNDERSTANDING

**Teacher:** Give students three graphs or charts they haven't seen before. If you can find graphs or charts about recycling, this will help keep the discussion focused. Ask them to identify the type of graph or chart and what information it provides.

**Student:** Identify other information you think would work well in a graph or chart. Can your teacher help you find that information online in graph or chart format?



Lesson 3 Worksheet

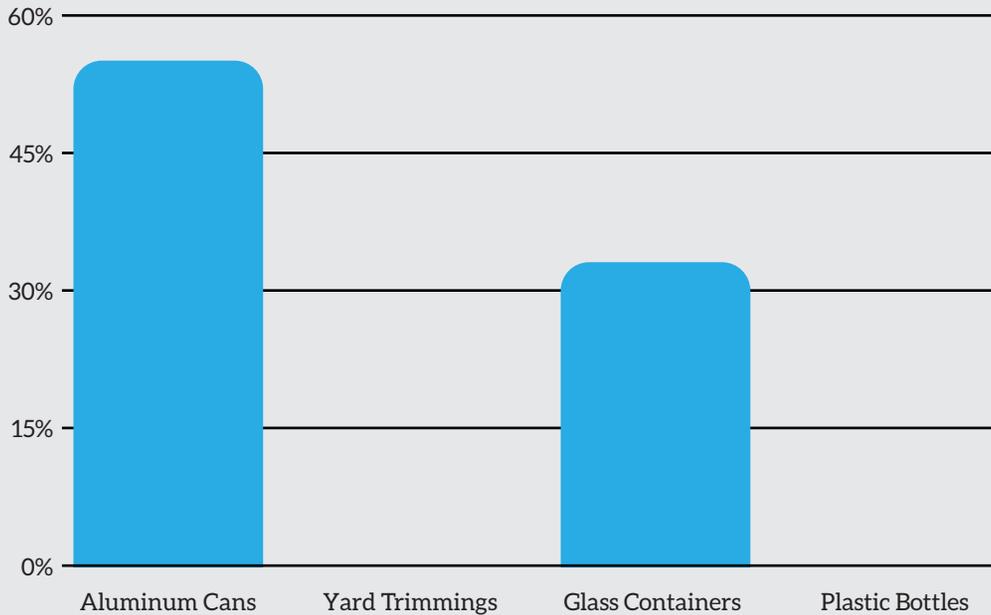
# RECYCLING RATES

Name: \_\_\_\_\_

Date: \_\_\_\_\_



The graph below shows 2014 U.S. recycling and composting rates for different household items. Use the graph to complete the worksheet.



1. Complete the graph by adding the following data:

Yard trimmings: 61%  
Plastic Bottles: 30%

2. Circle the best label for the x-axis:

- a. Recycling or Composting Rate
- b. Year
- c. Household Items and Products

3. If 30% of plastic bottles are recycled, what percentage of plastic bottles are *not* recycled?

4. Write one idea you have for improving recycling rates in your school or community.