INTRODUCTION:

In this lesson, students will group plastic pieces by Resin Identification Number (RIN) and physical characteristics.

CONCEPTS:

- 1. Students will understand the recycling codes used on plastics to identify the material from which an item is made to facilitate easier recycling.
- 2. Students will know the definition of *plastic*.
- 3. Students will understand that plastics are ubiquitous and their importance to society and their personal life.

MATERIALS: Journals, boxes, recycling codes, found plastics

PREPARATION:

Ask students to collect examples of plastic items from at least 5 of the 7 plastic recycling codes. Allow them at least a week to collect. They need to be aware of the code embossed on most plastic containers. NOTE: Students will readily be able to find resin identification numbers (RIN) 1, 2, 4, 5, and 6. You may want to focus on numbers 3 and 7 or challenge students to find plastics with those RINs. Accept plastics without RINs, as well. Stress that these containers need to be clean and dry and will not be returned. Initial collection should be in one or two large containers. Prepare seven boxes with one recycling symbol and number on the front for sorting in Part 2.

PROCEDURE:

- 1. Students collect examples of plastic items from at least 5 of the 7 plastic recycling codes.
- 2. As students collect the plastic items, have them complete the student chart from this lesson. Allow them to research the answers on the internet.
- 3. Over an 8-hour period, write down everything you touch that is made of plastic. At the end of that period of time review your list.
 - a. Cross out three things you could live without
 - b. Circle three items that you could NOT give up
- 4. Read The History of Plastics and write a paragraph describing what you learned.
- 5. After completion of #1,
 - a. Consider in writing what you already know about plastics and your opinion about plastics.
 - b. Consider how your life would be different without the 3 items you 'gave up' in '1a'.
 - c. Could you replace a plastic item from '1b' with another material? What might the environmental impact of that change be? Does it cost more to make from this different material. Is it as strong? Is it as appealing with the new material? Consider similar questions when answering this question.

Student Chart – Plastics Scavenger Hunt – Part 1

Generally speaking, plastics using resin numbers 1 and 2 can be placed in your curbside bin, however different municipalities have varying rules about the other resin numbers. Contact your local recycling/waste management authority for guidelines before marking the "yes" or "no" options next to the other resin codes.

Resin Number	Abbreviation and full name	Place in recycle bin?	Common applications	Other recycling options?
1		Yes/No		
2		Yes/No		
3		Yes/No		
4		Yes/No		
5		Yes/No		
6		Yes/No		
7		Yes/No		