**Recycling Race (15 min)**

**Time:** 15 min

**Summary:** Presented with a large array of waste plastics, the students will be asked to sort them.  They can decide how to sort (by type of plastic? Size? Purpose of the Object?). However, after the given time is over, they will be asked to explain their sorting categories and instructors can evaluate the ‘winners’ of the race. This could be based on difficulty of determining accurate categories, perceived usefulness of the category, whether it is based on scientific principles, etc.

ILOs:

1. Identify commonalities among waste plastics
2. Point out challenges in the sorting process

**Equipment list:**

Plastic products - milk jugs, plastic bags, beach ball, plastic tupperware, plastic takeout containers, squishy toys (polyurethane), slime, styrofoam/ packing peanuts, bubble, rubber materials

Students should be asked to bring plastic products from home !! Additionally, any packaging or plastic from other activities can be added.

Be sure to include some mixed plastic and other material products (like a chip bag, or coated milk carton)

**Intro:**

Previously, we talked about what polymers are and some of the really interesting properties they display that make them special. We want you to gather with the group of people next to you and take about 5-10 minutes to try to sort the items you have however you see fit. Maybe you sort them by how they feel, how you think they may be made, the uses for them, or anything else you think of!

**Procedure:**

Preparation: take note the type of plastics (plastic recycling number) we are bringing with

1. Provide students a set of polymer items in addition to what they bring in from home or elsewhere.
2. Provide intro and instructions from above
   1. Have students gather into small groups
   2. Sort the items they have brought and been provided however they see fit for 5-10 min
      1. Feel
      2. Sizes or shape
      3. Production method
      4. Uses of the product
3. Have the groups share what categories they sorted the items into and proceed in the evaluation of the ‘winners’

**Discussion questions/debrief:**

*Ask each group Q1 before proceeding to ask each group Q2*

* What categories did you sort your products into?
* Why did you choose the categories you did?
* Was it difficult to sort the items?

**Lab handout needed?**

No