

There are several ways to introduce this unit, and they may be used interchangeably depending on classroom circumstances.

(1) Beach / River or Park Cleanup.

Supplies Needed:

- Signed permission slips
- Bus (if necessary - contact your school transportation office as early as possible)
- Canvas bags for student use
- Gloves (optional, as needed)
- Several tarps to sort plastic waste on
- Access to recycling facilities.

After having permission slips signed and turned in, supply students with canvas bags to collect plastic trash from your designated area. Students should comb the beach in pairs or small groups. It is not advised to allow students to go off on their own, and physical cleanup boundaries should be set before cleanup begins.

Explain to students that they will be collecting all types of plastic waste in a given timeframe (about half of your allotted time ). Stress that no plastic fragment is too small. **DO NOT ALLOW STUDENTS TO HANDLE BIRD OR ANIMAL CARCASSES** (they should report them to an adult. I would, however take pictures of any dead wildlife entangled in plastic rope, fishing line, etc, to report them to the proper authorities).

While students are cleaning the beach, an adult should set up the sorting area.

On tarps, label areas for plastic bottles, styrofoam, rope / fishing line, toys, and miscellaneous. Teacher may also wish to collect some samples of sand from the water, from 2-3 inches below the beach surface, and from sand on the top of the beach surface. These will later be analyzed for micro-plastic particles.

When student clean up time is complete, they will bring their plastic waste to the tarps and with adult supervision sort it into the appropriate piles. Take pictures of the plastic when sorting is complete.

Fold plastic waste into the tarps for disposal at recycling facility. (Check with your school recycling company to see if they will pick up your beach plastic. )

Discussion of what they found and where it came from is encouraged. A Day One Beach Survey is attached. (If possible, go back to the same beach after 2 months and repeat the process Compare Beach surveys from each outing.

(2) If leaving the school for a beach / river/ park clean up is not feasible, ask students to bring in samples of plastic they use on a daily basis. Bring in camera footage or photos of debris found in your area. Compare the images to the plastic used by students.

(3) In the classroom, brainstorm ideas on what sustainable options could be chosen in place of the single use or disposable plastics. Publish ideas in a school or classroom newsletter, local

newspapers, or other local media choices. .Save copies for use in Plastic Free Fair culminating event.

Names:

Date:

### **A Day At The Beach Survey**

Where did you and your partners find the most debris, in the open space, rocky areas, harbors, etc?

What types of plastics did you find? What type was most abundant, and which types were less abundant?

(a) Most:

(b) Less:

(c)

(d)

Did you find microplastics in your worksite? Where did you find the most? The least?

Did you find recyclable plastics such as single use water, soda, or juice bottles?

Did you find fishing debris?

Did you find large pieces of plastic, such as beach toys?

Did you find styrofoam? Was it decayed or in larger pieces?

**In the Classroom:**

- (1) Were you surprised by the amount of plastic you found? Did you think you would find more or less than you did?
  
- (2) Does your state or city have a recycling deposit on single use bottles? How does (or would) this affect the amount of plastic found in the waterways?
  
- (3) All inland waters are part of watersheds that lead to one of the oceans. Trace (describe) the route your beach or worksite takes to the ocean.
  
- (4) Brainstorm ideas in which we could decrease our dependence on plastics, and create sustainable packaging.