STEM ACTIVITY OF THE WEEK

HUDSON RIVER PK

Plastic Rapid Survey Answer Key

Part 1: Learning Your Plastics

1. Write down 5 specific examples of **single-use** plastics (hint: think of things used on-the-go).

<u>Possible answers:</u> plastic utensils, straws, plastic cling wrap, take-out food containers, shampoo bottles, beverage bottles, flexible plastic cups and plates, chip bags, blister packs for medicines, pill bottles, dish soap and detergent bottles, packaging for electronics and other home goods, plastic shopping bags, etc.

2. Write down 5 specific examples of **multi-use** plastics (hint: these are commonly found in our technology and materials that make our clothing)

<u>Possible answers:</u> game consoles, keyboard keys, remote controls, laptop charger, sweat-wicking polyblend clothing (like athletic shorts), fabric found in sneakers, kitchen tools like plastic spatulas and measuring cups, food storage containers, rigid plastic cups and plates, athletic equipment like soccer balls, yoga mats, jump rope handles, bike helmets, etc.

Part 2: Survey Your Plastics
<u>Example:</u>

Plastic Rapid Survey Data Chart	
Survey Room: Kitchen	
Single-Use Plastics	**Multi-Use Plastics**
Total: 17	**Total:** 9
Total Plastic Items Counted (add your totals from above): (17+9) = 26	

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Part 3: Analyze Your Results

1. What percent of your Total Plastic Items Counted were **single-use** plastics? Please show your work.

   17 ÷ 26 x 100 = 65.38%

2. What percent of your Total Plastic Items Counted were **multi-use** plastics? Please show your work.

   9 ÷ 26 x 100 = 34.62%

3. List 3 **single-use** plastic items found during your survey that could be replaced with alternative materials (wood, metal, ceramic, cotton, wool, etc.).

Example: Three single use plastics I found in my kitchen that could be replaced with alternative materials are my carton of eggs, plastic cling wrap and Keurig pods. In the future, I can buy eggs sold in cardboard, I can use beeswax-coated cotton food wrappers and I can switch to pour-over coffee which uses a ceramic funnel and reusable metal mesh coffee filter.

4. List 3 **multi-use** plastic items found during your survey that could be replaced with alternative materials.

Example: Three multi-use plastics I found in my kitchen that could be replaced with alternative materials are my reusable water bottle, chopsticks and food storage containers. In the future, I can use a reusable water bottle made from aluminium, I can buy metal or wooden chopsticks and I can switch to glass, ceramic or aluminum food storage containers.

5. ****Challenge Question**** Consider what you know about plastics and CSOs. Even when we do our best to recycle, plastic products can wind up in the Hudson River (hint: refer to the **background** section of this lesson).
   a. What plastic products do you use that you could opt for non-plastic versions of in the future?

Example: One item I did not mention in my previous answers are my silicone oven mitts. I could instead use oven mitts made of cotton.

   b. When it rains in New York City, there is usually a CSO event. What can you do at home to limit the amount of water added to the sewer system during these times and why?

Example: During rain events, I can avoid running the dishwasher and laundry machine because they use a considerable amount of water to clean what is inside. By waiting until after the rain has stopped, I am preventing that water from contributing to New York City's overwhelmed combined sewer system.

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      c.   What are 2 things you can do in your daily life to help solve this problem of plastics in the Hudson River?

<u>Example:</u> One thing I can do to help prevent plastic from entering the Hudson River is refuse unnecessary plastic items in the first place, like plastic produce bags at the grocery store. Another thing I can do is help inform my friends and family about CSO events and how we can minimize their impact by using less water at home when it rains.