Marine Debris

Supplies

- Timer/stopwatch
- Vanilla pudding boxes
- Blue food dye
- Bowls, napkins
- Gummy bears
- Gummy worms
- Sprinkles
- 4 large clear plastic containers
- Spoons
- Small whiteboard
- Expo markers

Preparation

To prepare for the program, complete the following items in advance:

1. Fill all clear plastic containers with pudding and add 2–3 drops of blue food dye to turn the pudding into an "ocean color".
2. Cut or tear gummy worms into quarters and put 20–24 quarters into each pudding ocean.
3. Put the same number of gummy bears into each pudding ocean.
4. Add sprinkles to two of the containers and mix all the contents.

Procedure

1. Introduce marine debris – Begin the activity by discussing with the group what is considered marine debris and some of the effects it has on our oceans and beaches. Next, discuss what the sources of marine debris are.
2. Discuss what happens to plastic marine debris once it's in the water. This will lead into the activity.
3. Direct the participants to the plastic bin without sprinkles. Tell participants that they are sea turtles trying to eat jellies. The jellies are squishy and can be clear or colorful for this activity.
4. Explain that they are going to be given 20 seconds to collect as much food as they can from their pudding ocean. Instruct them to pull food out one by one, using the spoon, and place each piece in the bowls as they go.
5. Start the 20 second feeding period and tell participants when to stop. Keep track of the items they collected on the whiteboard.
6. Instruct participants to now look at what they collected more closely and take note of how many gummy bears they collected as well as how many gummy worm pieces. They look very

similar when mixed in the pudding ocean. After counting, return all pieces to the pudding ocean.

7. Now tell participants that the gummy worm pieces are actually plastic pieces and that the gummy bears are their main diet. In the second feeding period, participants should only aim to collect gummy bears – their actual food.
8. Ask the group: Did you collect more plastic than your actual food? How might this same situation affect marine animals like sea birds that often ingest large amounts of plastic pieces?
9. Run the next 20 second feeding period.
10. Have participants count the number of food pieces they collected. Did they accidentally collect "plastic" pieces again? Make note of everything collected and return all pieces once more to the pudding ocean.
11. Ask the group: Now that you knew to avoid the plastic pieces, did you have a harder time searching for food? Did you collect fewer pieces overall than the first round because you spent more time avoiding plastic?
12. Finally, direct the participants to the bin with sprinkles. Explain that the sprinkles represent microplastic pieces.
13. Repeat the last round (where participants are aiming to collect only their gummy bear food) but now they must also try to avoid microplastic pieces that will stick to everything.
14. Run the final 20 second feeding period.
15. Have participants count the number of each item they collected: food, plastics and microplastics.
16. Ask the group: Did you accidentally collect microplastic pieces? Were you frustrated by how many microplastic pieces that were and how they stuck to all your food pieces?