



CHALLENGE

1 million plastic bottles are bought around the world every minute, and this number is set to increase to half a trillion a year by 2021. On average, less than half are turned in for recycling. Follow the lead of the San Francisco Giants by setting up a recycling plan for your home.

ACTION

- 1. Make a list of all the items in your home that could be **recycled**. Include food scraps, newspaper/magazines/paper, cardboard, and anything else you throw away. Remember to check food packaging for **recycling** symbols.
- 2. Calculate how many items you could **recycle** and save from being dumped in a landfill in a week, a month, and a year. Use your list and addition and multiplication to calculate.
- 3. Create a sign to remind your family to **recycle**. Include at least two facts and two images on your sign.

Bonus Project:

Engineer an upcycled, reusable bag that you and your family can use for shopping. Consider a variety of materials (e.g., t-shirt, twine, duct tape) and a variety of methods (e.g., sewing, tying, taping). Get creative with it!

NGSS for Grades 6-8

MS-ESS3-3 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment. MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

Common Core for Grades 6-8

WHST.6-8.1 Write arguments focused on discipline content.

6.SP.B.5 Recognize and represent proportional relationships between quantities.

EXPLORE RESOURCES

<u>Danielle Nkojo</u> provides a behind-the-scenes look at what happens to waste in Washington D.C. <u>Beth Gingold</u> describes her job as the manager of the recycling program for D.C. public schools. <u>Julienne Bautista</u> shares how she began her career in storm-water management. <u>Recycling and trash cans</u> on a city corner.

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