



In the Flow: Plastic Pollution in the Pacific Ocean

A. Use the arrow keys on your computer keyboard to explore Earth.



1) How much of Earth's surface is covered in water? (Circle one)

none some most all



- B. Place the cursor in the middle of the Earth.
- C. Use the arrow key to make the Earth spin and close your eyes.
- D. Stop pressing the arrow key; open your eyes.



Record if the cursor is over land or water by putting an X in the box. Repeat 10 times.

Trial	Water	Land
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

Total Water = _____ x 10 = _____ %

Total Land = _____ x 10 = _____ %

2) How do the results of your experiment compare with the actual % of the Earth's surface that is covered in water? (Circle one)

Lower Same Higher

3) From your observations do you think most of this water is salt water or fresh water?

When the ocean is warmed by the sun, liquid water evaporates and becomes water vapor. When the water vapor is cooled some of it turns back into liquid water as clouds or rain. If the air is cold enough, the water will freeze into a solid and fall as snow, sleet, or hail.



F. Using the arrow keys and zoom, search for one location where there is evidence that precipitation has fallen as rain, and another where there is snow.




4) Where did you find evidence that it had rained? Where did you find snow? Describe.

5) What do you think caused the temperature difference between the two locations?

6) For each location, where does the water go after it has fallen or melted?



G. In Google Earth, go to the Search Panel under the "Fly to" tab.

H. Type your school's name or address and hit search 

I. Click "Add Placemark"  on the tool bar.

J. **Name** your placemark with the name of your school.



7) **How many miles do you think your school is from the ocean? (circle one)**

0-10

10-20

20-50

50-100

>100



K. Use the Navigation Controls to "zoom out" until you can see the ocean.

L. Use the Ruler tool  to **measure the distance** from your school to the ocean.



8) **What is the actual distance from your school to the Ocean?**




M. Using the navigation controls, follow the path that you think a raindrop would take from your school to the ocean.



9) **Do you think the raindrop would find pollution on its path from your school to the ocean? Describe.**



N. Find the North Pacific Ocean. The small blue sailboats  show the voyage of a research vessel carrying scientists studying plastic trash in the Pacific Ocean.

O. Follow the voyage by clicking on the sailboats to see what the scientists found along the way.



10) **What are three different examples of plastic trash that the scientists found in the Pacific Ocean?**

1.

2.

3.

Most plastic trash in the ocean comes from litter that gets swept from land into the water when it rains.

11) **What could you do to make sure that you don't pollute the ocean with plastic litter? Name three things.**

1.

2.

3.