

It's All Connected: Global Circulation

PART A: Tracing Pathways

Stop and Think: Wind

1: What are the regions from which wind blows *into* your region? Write down real geographic names (for example, write the name of a mountain chain, not just "mountains").

2: What might the wind be bringing *into* your region? Think about the places the wind is coming from, what happens there, what lives there. Think about dust, insects, tiny seeds, smoke, air masses of cooler or warmer temperatures, and moisture. Be specific in your responses.

3: When wind blows *out of* your region, what region does it blow into? Again, write down real geographic names.

4: What might the wind be carrying *out of* your region? Is it the same as what it brought in? Be as specific as you can about what is being carried, and where it goes.

Stop and Think: Water

5: What are the regions from which water flows into your region? Write down geographic names.

6: What might the water be bringing into your region? Be as specific as you can.

7: When water flows out of your region, what region does it flow into? Again, write down geographic names.

8: What might the water be carrying out of your region? Be specific.

PART B: Message in a Bottle

1: Imagine dropping a message in a bottle into the ocean at a given location and observing where the object would end up as a result of surface currents. Based on the pathways you traced in Part A, where do you think your bottle would end up?

2: How well does your prediction of where your message in a bottle would end up agree with the computer model? Explain.

3: What events and activities in other parts of the globe could affect your region? Describe events and activities that are caused by people (such as making dams) and those caused by nature (such as volcanic eruptions).

4: What events and activities in your region could affect other parts of the globe?

5: Compare and contrast the paths of these drifters with those of drifters dropped into the ocean near your study region.

6: Why do you think there are international laws for dumping waste/trash/chemicals in the ocean, rather than just local laws? Do these laws only need to extend to nearby neighboring countries? Explain.