

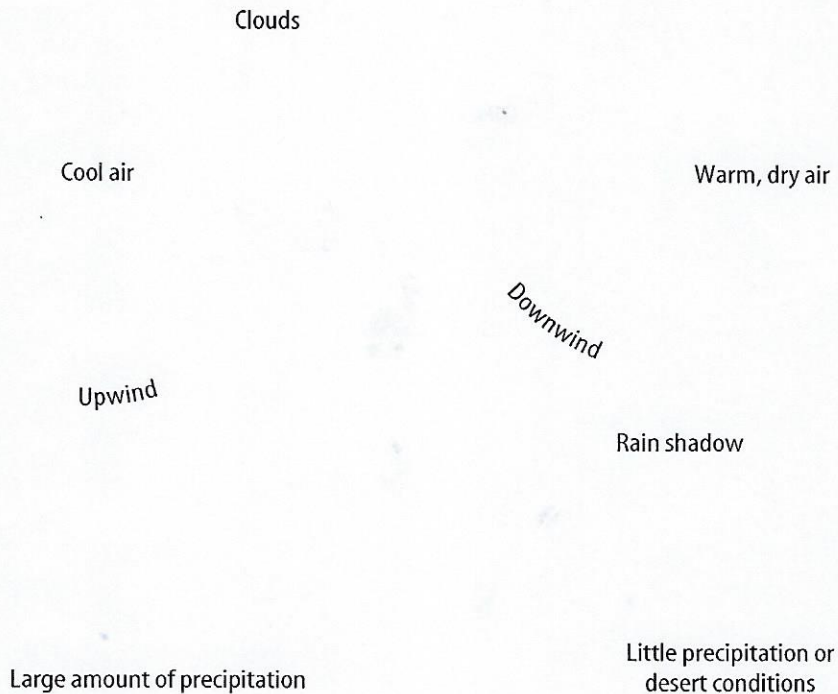
Activity**2****IRA/NCTE****Standard 1**

Directions: Read the passage below and examine the diagram. Then answer the questions.

A rain shadow is an area that receives little rainfall because it is on the downwind side of a mountain or mountain range. When winds encounter a mountain, air is forced to go up and over the mountain. As the air rises, it expands and cools. Cool air is unable to hold as much moisture as warm air, so the moisture often condenses, forming clouds. Precipitation then falls from the clouds on the upwind side of the mountain.

As air moves over the mountains and begins to descend on the downwind side, it becomes warmer. Clouds do not form easily in the warmer air. Because the warm, dry winds on the downwind side of the mountains produce very little precipitation, this area is called the rain shadow. In some parts of the world, rain shadow areas have become deserts because they receive so little rainfall. California's Death Valley is part of a rain shadow.

The following diagram illustrates how a rain shadow occurs.



Activity 2 (continued)**Multiple
Choice**

1. What causes clouds to form on the upwind side of mountain ranges?
 - a. The warm winds cause moisture to condense, forming clouds.
 - b. The mountains keep the air from circulating, forming clouds.
 - c. The strong winds push the air into the mountains, forming clouds.
 - d. The air rises and cools as it hits the mountain, forming clouds.
2. Land in a rain shadow area most likely would
 - a. be covered with thick forests.
 - b. be desert.
 - c. have many lakes.
 - d. be used for farming.
3. Why did the author write this passage?
 - a. to discuss how clouds form
 - b. to tell how deserts are formed
 - c. to give information about rain shadows
 - d. to explain how mountains affect weather
4. Which detail is NOT supported in the passage?
 - a. Some rain shadows are deserts.
 - b. Death Valley is in California.
 - c. Air cools and expands as it rises.
 - d. The downwind side receives more precipitation.

**Short
Answer**

5. What three questions could you ask someone to determine whether they live in a rain shadow?

6. Do you think a written explanation or a detailed drawing is most useful in explaining rain shadows? Explain.
