

## Mission Explore Pre and Post Test Grade 4

1. What is the name of the ocean surface current that runs along the east coast and most affects the weather of Massachusetts?
2. The jet stream is a large “river” of air that moves across the globe. Use the map to answer the questions below:

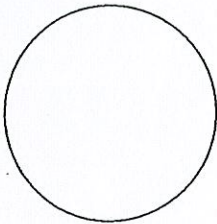
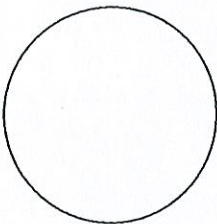
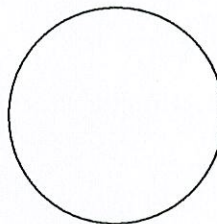
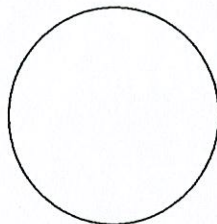
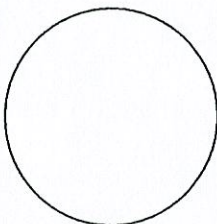
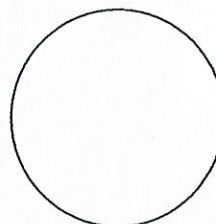


- a. What direction does the jet stream travel?
  - b. Between what two types of weather conditions does the jet stream travel?
3. How is weather different from climate?
  4. A puddle is left on the ground after a rain storm. The sun comes out and the puddle gets smaller and smaller as the day goes on. This process is the part of the water cycle called:

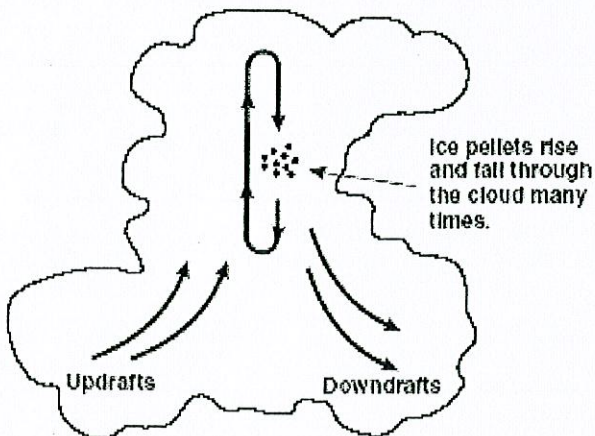
5. In the water cycle, rain, snow, or sleet falling to the ground is a form of:
  
6. There are four characteristics that make up the weather in a particular time and place. Please name them:
  
7. What instrument is used to measure changes in air pressure?
  
8. What instrument is used to measure wind speed?
  
9. Two things must be present in the atmosphere for a cloud to form. Please name them:

## Mission Explore Pre and Post Test Grade 5

1. How long does it take the Earth to make a complete rotation on its axis?
2. How long does it take the Earth to revolve (orbit) around the sun?
3. If you were to go outside on a sunny day, what time of day would your shadow be the shortest?
4. How does the moon change over the course of the month? The first circle represents the full moon. Color in each circle, leaving blank the portion of the moon still visible 5, 15, 20, 25 and 30 days after the full moon.

Day 1: Full	5 Days Later	15 Days Later	20 Days Later	25 Days Later	30 Days Later
					

5. The diagram below shows precipitation forming in a large cloud.



The ice pellets grow larger each time they rise and fall through the cloud. What type of precipitation is this process producing?

6. What climate is most likely to have higher humidity, Massachusetts (temperate and near the ocean) or Arizona (desert in the center of the country)?
  
7. Clouds are formed from tiny drops of water that are light enough to float in the air. As these drops bump into each other, they form larger drops. What happens when these drops become too heavy to float in the air?
  
  
  
  
  
  
  
  
  
  
8. Rank from largest to smallest: Moon, Sun, Earth Jupiter
  
  
  
  
  
  
  
  
  
  
9. The diagram below shows our Solar System (not to scale). The Sun is the large half circle. The rest of the circles represent the eight planets in the Solar System. Please circle the Earth: