Weather Weather Everywhere

By Janine G. Wilson

No matter where you live in the world, you are affected by the weather. Weather is the condition of the atmosphere at a particular time and place. It is what is happening right now. Snap your fingers! That is how quickly weather can change. You a of nowl weat wher e beac f weat scien

air or ually has a Sun is the only star in our solar system, and it fuels the water cycle continuously. For us to have precipitation, water must first reach the atmosphere as it is heated by the Sun, changing from a liquid to a gas or vapor. This is evaporation. The fast-moving gas particles slow down in the cool upper atmosphere and move closer together, condensing into tiny water droplets. Condensation takes place when gas changes into a liquid. When there are millions of water droplets and dust particles, clouds

form. As the clouds become full of water droplets, precipitation begins to fall as rain, snow, sleet, or hail.

Precipitation usually falls as ice crystals from clouds in the upper atmosphere. When the ice crystals melt as they fall through layers of warm air, it rains. Ice crystals falling through freezing temperatures from air to ground will stay frozen and fall as snow

grou al
storn
melt, ze
over ice,
gravi
hom

er
vapo s

clouds are high altitude clouds made of ice crystals. These wispy, thin, feathery clouds occur during fair weather but can signal a change in weather. Fair weather clouds, puffy clouds with fat bases, are cumulus clouds; grayish thin clouds that spread across the sky as flat sheets are stratus clouds. Stratus clouds bring about a light rain, or drizzle. Cumulus clouds form at low altitudes, but stratus clouds form even lower. At ground level, stratus clouds form fog.

Weather

Air pressure determines the type of weather in an area. Cooler air is denser because the gas particles are moving more slowly and closer together. Cooler air is heavier than warmer air and sinks, causing high air pressure on the Earth. Sinking air cannot form clouds, and therefore, high pressure causes fair weather. Low pressure is just the opposite. Because warmer air is lighter and rises, a low-pressure area forms on E

dete

bring f an

area. ea.

Winc

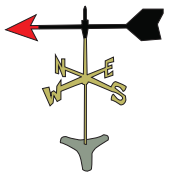
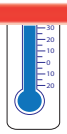
temp e

weat

understanding weather shapes our lives. Weather helps us make plans and decide what to wear. Weather is everywhere!

Weather

1) Below are instruments that help meteorologists predict the weather. Complete the table by filling in the weather factors.

Weather Instrument	What the Instrument Measures	Weather Factor
Wind vane 	the direction that wind is blowing from	
Thermometer 	the air	

2) Libby and Janine were cloud-gazing. It was a nice sunny day with thin clouds that looked like feathers across the sky. What type of clouds were Libby and Janine observing?

a) stratus b) cumulonimbus c) cumulus d) cirrus

3) Which statement is correct?

a) Sleet usually falls through layers of freezing air from the clouds to the ground.

b) Sleet falls as layered chunks of ice, signaling a change in weather.

c) Sleet also falls as rain, but the raindrops refreeze before hitting the ground.

d) Sleet is seen during the warm summer months.

4) D .

_____

_____

_____

_____

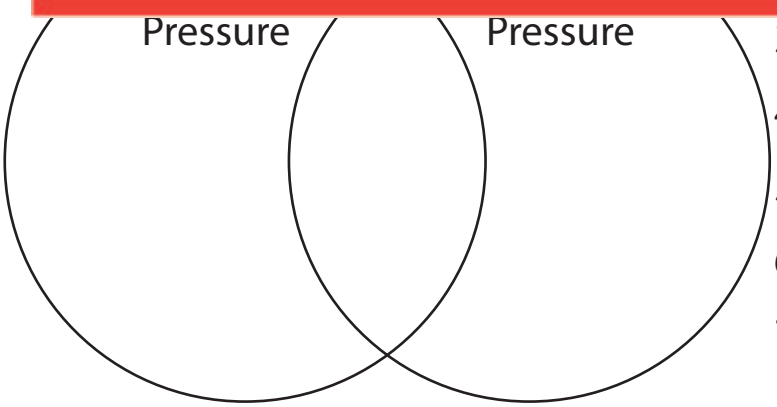
_____

5) C wing

s nts.

sure.

ng



3) It causes stormy weather.

4) It is linked with fair weather.

5) It is associated with high humidity.

6) It is measured with a barometer.

7) It comes with warmer temperatures.

8) It comes with cooler temperatures.

9) It is associated with sinking air.