



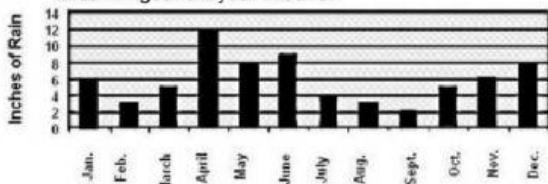
SOL: 4.4 Earth and Space Systems (Weather)

Scientists at Work: 50 minutes

Time: 11 Days

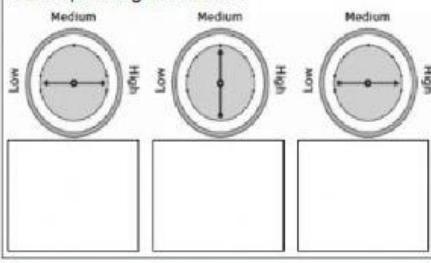
Evaluate 4.4a Weather measurements create a record that can be used to make weather predictions

1. What is the best prediction for how much rainfall this area will get next year in June?



A) 9 in. B) 3 in. C) 5 in. D) 15 in.

2. Match each weather condition with the corresponding barometer.



3. A barometer measures air pressure and tells whether the pressure is rising or falling. What weather can be expected when the air pressure is rising?

- a) sunny and dry conditions are coming
- b) stormy and wet conditions are coming
- c) a hurricane is coming
- d) a tornado may happen

4. What types of clouds are being described?

<ul style="list-style-type: none">• Light rain and drizzle• Smooth and gray• Cover the sky and block the sun	<ul style="list-style-type: none">• Fluffy and white• Flat bottoms• Fair weather
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Stratus Cumulus Cumulonimbus Cirrus

5. There was a major thunderstorm last night. What is the best estimate for how much it rained last night if each main line on the rain gauge represents 1 inch?

inches



Evaluate 4.4b: Common and extreme weather events affect ecosystems

1. Which of the following statements about storms are true?

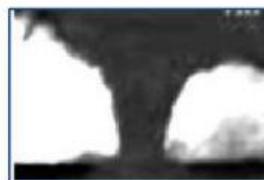
Tornadoes are violent twisting storms.
Hurricanes occur most often in the winter.
Thunderstorms occur most often in the warmer months.
A lot of damage from hurricanes is due to flooding.
Hurricanes form over warm flat lands.

2. This storm is the most powerful electrical storm. What storm is described?

- a) Thunderstorm
- b) Hurricane
- c) Tornado
- d) Flood

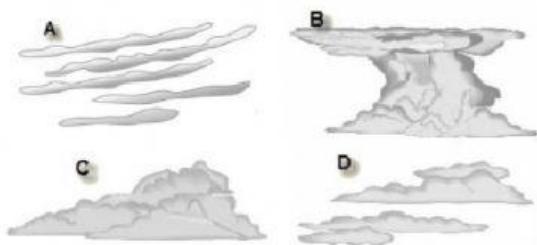
3. This storm is a strong rotating column of air.

Which kind of storm is it?



Thunderstorm	Tornado	Hurricane	Tsunami
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3. Different types of clouds are associated with different types of weather. Which of the following types of *clouds* would most likely be seen in the sky during a *thunderstorm*?



4. What characteristic do thunderstorms, hurricanes, and tornadoes have in common?

strong winds	stormy seas	large hail	heavy precipitation
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5. Match the terms appropriately.

Cause	Effect	Warm, humid conditions
	Hurricane	Warm tropical waters
	Thunderstorm	
	Tornado	Wind changing directions

Evaluate 4.4c: Long term seasonal weather trends determine the climate of a region

1. Which of the following correctly defines the term climate?

- a) current weather conditions in a particular area
- b) average weather conditions in a particular area
- c) weather events that are rare for a particular area
- d) weather conditions that are only affected by terrain

2. What is the main difference between weather and climate?

- a) Weather is short-term and climate is long-term.
- b) Weather and climate measure different things.
- c) Weather is seasonal and climate is not.
- d) Weather changes but climates do not.

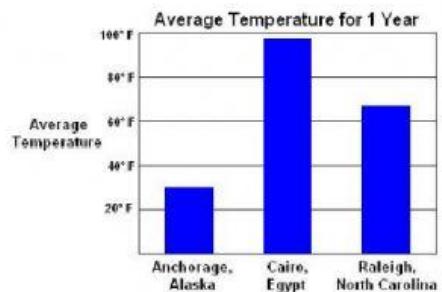
3. Lisa currently lives in Chicago. She wants to move to a city that has a similar climate. She gathers some data on four other cities to compare their climates.

City	Average Low Temperature in Midwinter	Average High Temperature in Midsummer
Chicago	16°F	85°F
Atlanta	33°F	89°F
Bangor	7°F	79°F
Denver	17°F	84°F
Yuma	48°F	107°F

Based on these data, where should Lisa move?

- a) Bangor
- b) Yuma
- c) Atlanta
- d) Denver

4. The chart shows average yearly temperatures for three cities.



The average yearly temperature ranges for different climates are shown below.

Tundra	-17° to 41°F
Taiga	14° to 59°F
Temperate forest	32° to 82°F
Tropical desert	61° to 120°F
Tropical savanna	80° to 90°F

What is the climate for Cairo?

- a) Tropical desert
- b) Taiga
- c) Temperate forest
- d) Tundra