

**Checkout Questions****Lab 21. Forecasting Extreme Weather: When and Under What Atmospheric Conditions Are Tornadoes Likely to Develop in the Oklahoma City Area?**

1. What atmospheric conditions are typically present before tornado formation?

2. The table below shows data for four moments in Oklahoma City with different atmospheric conditions.

<b>Moment</b>	<b>Date</b>	<b>Time</b>	<b>Atmospheric conditions</b>
A	January 15	5:00–7:00 p.m.	Approaching warm front
B	May 3	5:00–7:00 p.m.	Approaching cold front
C	January 15	7:00–9:00 a.m.	Approaching cold front
D	May 3	7:00–9:00 a.m.	Stationary front

a. Rank the moments in the order of likelihood that a severe tornado will occur during this time, with 1 being most likely that a severe tornado will occur, and 4 being least likely that a severe tornado will occur.

b. How do you know?

# LAB 21

3. A list of every date a tornado has struck the Oklahoma City area is an example of evidence.
- I agree with this statement.
  - I disagree with this statement.

Explain your answer, using an example from your investigation about forecasting extreme weather.

4. Scientists do not always use lab experiments to further a scientific understanding of a natural phenomenon.
- I agree with this statement.
  - I disagree with this statement.

Explain your answer, using an example from your investigation about forecasting extreme weather.

## Forecasting Extreme Weather

*When and Under What Atmospheric Conditions Are Tornadoes Likely to Develop in the Oklahoma City Area?*

5. Scientists often need to look for patterns that occur in the data they collect and analyze. Explain why identifying patterns is important, using an example from your investigation about forecasting extreme weather.
6. Natural phenomena have causes, and uncovering causal relationships is a major activity of science. Explain why it is important to uncover causal relationships, using an example from your investigation about forecasting extreme weather.