

Climate, Weather, and Agriculture

This worksheet checks your understanding of how climate differs from weather, how both are measured, and how they shape farming practices in Alberta ([Outcome](#), [Knowledge](#), [Skills](#)). You will also look at how climate affects the plants, animals, and people who depend on it ([Knowledge](#), [Knowledge](#)).

Exercises

1. Climate or weather?

Write "climate" or "weather" on each line.

- a) It rained for two hours this afternoon. _____
- b) Northern Alberta has cold winters and short summers, year after year. _____
- c) The wind is blowing from the west right now. _____
- d) Southern Alberta is generally dry, based on 30 years of records. _____

([Knowledge](#), [Skills](#))

2. Match the tool to what it measures.

Tool	Letter	What it measures
1. Thermometer	___	A) Wind speed
2. Rain gauge	___	B) Humidity
3. Anemometer	___	C) Temperature
4. Hygrometer	___	D) Amount of precipitation

([Knowledge](#))

3. Multiple choice: climate zones.

Which climate zone is best described as very cold for most of the year, with little plant growth?

- A) Tropical
- B) Dry
- C) Polar
- D) Temperate

Circle your answer. ([Knowledge](#))

4. Short answer.

Name two factors that affect the climate of a region.

- 1. _____
- 2. _____

([Knowledge](#))

5. Fill in the blanks: predicting weather.

Meteorologists (weather scientists) use several methods to predict the weather. Two of these are _____ and _____. First Nations, Métis, and Inuit communities also use traditional knowledge built from generations of observing the land and sky. ([Knowledge](#))

6. True or false.

Circle True or False for each statement.

- a) Climate can affect when animals migrate. True / False
- b) Weather has no effect on what clothing people wear. True / False
- c) Farmers plan their crops based partly on climate. True / False
- d) A drought is an example of a weather event that can affect farming. True / False

([Knowledge](#), [Skills](#), [Knowledge](#))

7. Conservation agriculture.

Describe one conservation agriculture practice and explain why it helps farmers respond to climate or weather events.

Practice: _____

Why it helps: _____

([Knowledge](#), [Skills](#))

8. Short answer: patterns and cycles.

Explain how observing animal behaviour, such as a bird's yearly flight south, can help people recognize a pattern connected to the seasons. Use one full sentence.

([Knowledge](#), [Understanding](#))

Answer key

- 1. a) weather, b) climate, c) weather, d) climate
- 2. 1-C, 2-D, 3-A, 4-B
- 3. C) Polar
- 4. Any two of: geographical location, landforms, altitude, proximity to bodies of water
- 5. Any two of: computer modelling, historical data, satellite imaging, First Nations/Métis/Inuit traditional knowledge
- 6. a) True, b) False, c) True, d) True
- 7. Any one practice from: minimizing soil disturbance, maintaining soil cover, using water efficiently, sustainable harvesting (crop rotation, companion planting, limiting hunting or trapping, considering future harvests), with a reasonable explanation of how it helps
- 8. Answer should explain that repeated observations, such as birds migrating south each fall, show a seasonal pattern connected to changing weather or climate conditions