

## Lesson 2 Climate Cycles

**Predict** three facts that will be discussed in Lesson 2 after reading the headings. Record your facts in your Science Journal.

### Main Idea

#### Long-Term Cycles

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### Details

**Distinguish** four ways scientists learn about past climates.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_


**Compare** an ice age with an interglacial.

Ice age: \_\_\_\_\_

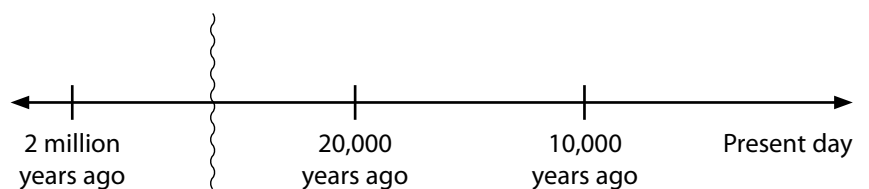
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Interglacial: \_\_\_\_\_

\_\_\_\_\_

 **Model** the time spanned by Earth's most recent ice age and interglacial on the time line. Use these labels:

- Ice age begins
- Maximum ice coverage
- Holocene interglacial begins



**Identify** four causes of Earth's long-term climate cycles.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

## Lesson 2 | Climate Cycles (continued)

### Main Idea

#### Short-Term Cycles

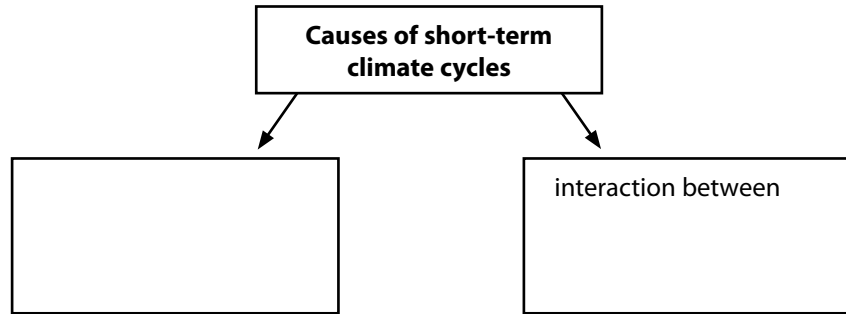
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### Details

**Summarize** two causes of short-term climate cycles.



**Diagram** the position of Earth and its axis in relation to the Sun during summer and winter in the northern hemisphere.



 **Explain**, in your own words, how the tilt of Earth's axis causes seasons.

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## Lesson 2 | Climate Cycles (continued)

### Main Idea

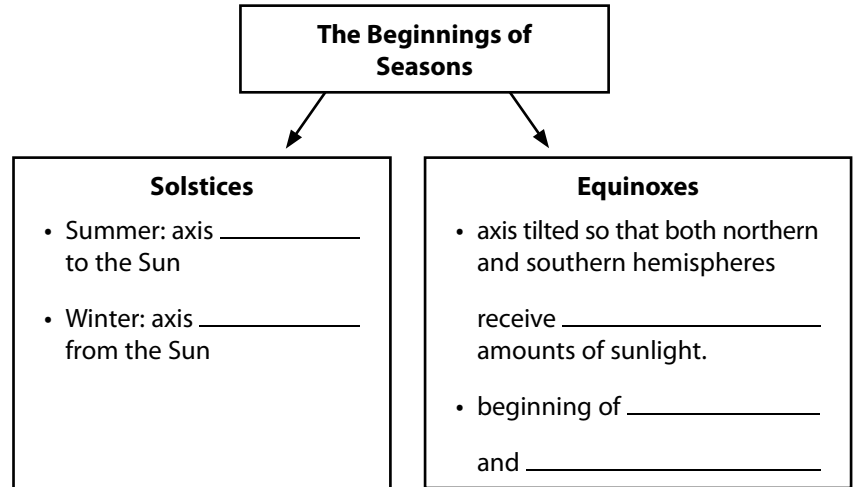
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### Details

**Review** how Earth's equinoxes and solstices mark the beginning of each of the 4 seasons in this organizer.



**Sequence** the statements to describe the phenomenon of El Niño/Southern Oscillation.

- \_\_\_\_\_ Warm water surges back to South America, preventing cold water from upwelling.
- \_\_\_\_\_ Trade winds that blow from east to west weaken.
- \_\_\_\_\_ The normal pattern of high and low pressure across the Pacific is reversed.

**Compare** ENSO and NAO weather patterns.

| <b>ENSO: El Niño/Southern Oscillation</b> | <b>NAO: North Atlantic Oscillation</b> |
|---|--|
| Description:                              | Description:                           |
| Weather Pattern:                          | Weather Pattern:                       |

## Lesson 2 | Climate Cycles (continued)

### Main Idea

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### Droughts, Heat Waves, and Cold Waves

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### Details

 **Explain** how monsoons change with the seasons.

Summer: \_\_\_\_\_

\_\_\_\_\_

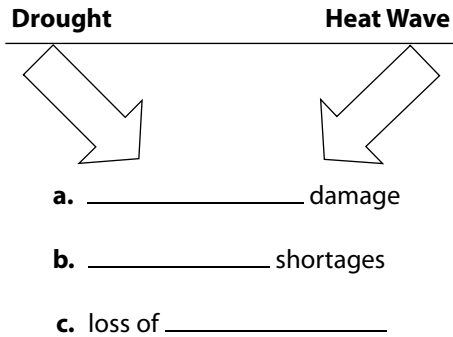
Winter: \_\_\_\_\_

\_\_\_\_\_

**Define** drought.

Drought: \_\_\_\_\_


**Model** the results of a drought and a heat wave occurring at the same time.



**Describe** the cause of cold waves.

\_\_\_\_\_

\_\_\_\_\_

 **Analyze It** Review what can happen during a drought and heat wave. What might be the effect of a cold wave?

\_\_\_\_\_

\_\_\_\_\_