The Greenhouse Effect

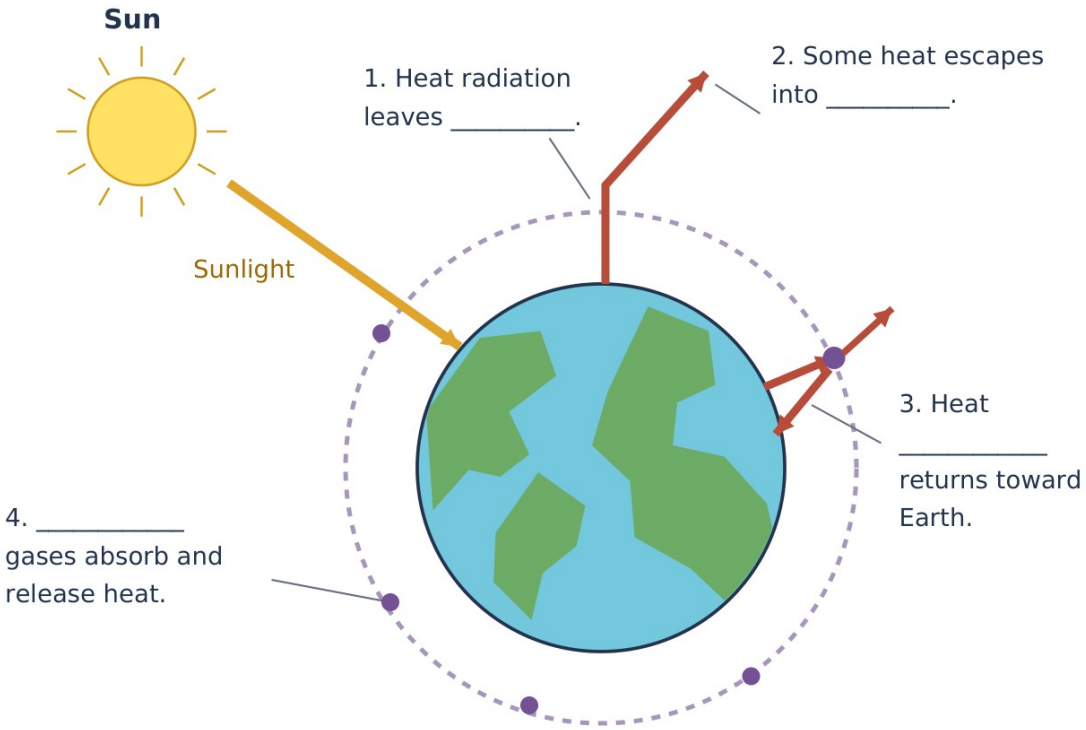
Name: _____ Date: _____

Sunlight warms Earth. Earth releases heat radiation. Greenhouse gases absorb some of this energy and release it in all directions, including back toward Earth's surface. This keeps Earth warmer.

1 Complete the diagram

Write each word in one blank.

Word bank: Greenhouse • Radiation • Space • Earth



Atmosphere shown with a dashed outline.

Greenhouse gases include carbon dioxide, methane, water vapor, and nitrous oxide. They are mixed through the atmosphere. This diagram is not to scale.

2 Think about warming

How do greenhouse gases help keep Earth warm?

What may happen to Earth's temperature when people add more greenhouse gases to the atmosphere?

Graph the Greenhouse Data

Name: _____ Date: _____

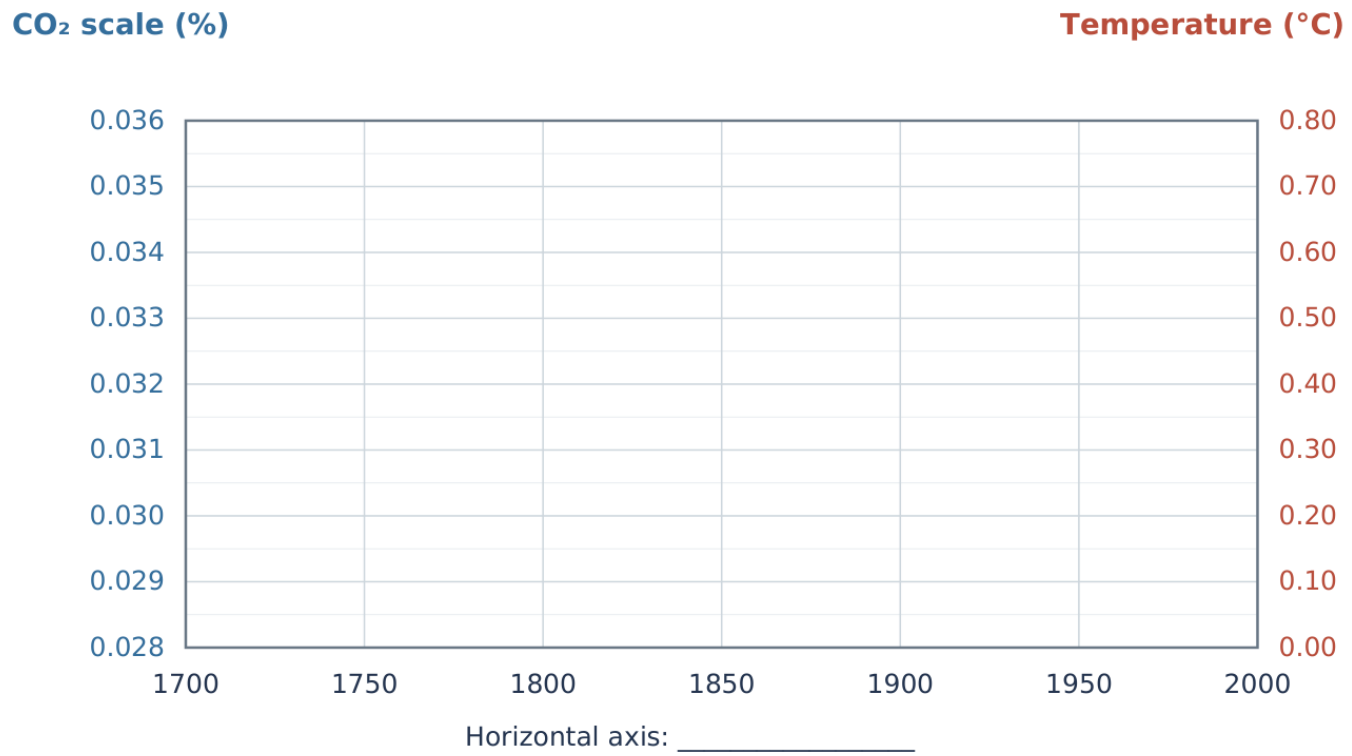
Use the practice data from the supplied worksheet. These values cover 1700–2000.

Year	CO_2 in atmosphere (%)	Temperature rise (°C)
1700	0.028	0.00
1750	0.028	0.00
1800	0.028	0.00
1850	0.029	0.05
1900	0.030	0.15
1950	0.032	0.25
2000	0.036	0.60

3 Make a two-line graph

1. Add a title and label the horizontal axis **Year**.
2. Plot **CO_2 in blue** using the **left scale**. Connect the points.
3. Plot **temperature in red** using the **right scale**. Connect the points.
4. Complete the key. Use the smaller grid lines for 0.05, 0.15, and 0.25 °C.

Graph title: _____



Key: Blue line = _____ Red line = _____

What trend do you notice in both lines?