

TIMSS 2019 - Restricted Use Items – Earth Science

Benchmark 3

Reasoning

Scientists have evidence of changes in Earth's climate over the last 650,000 years.

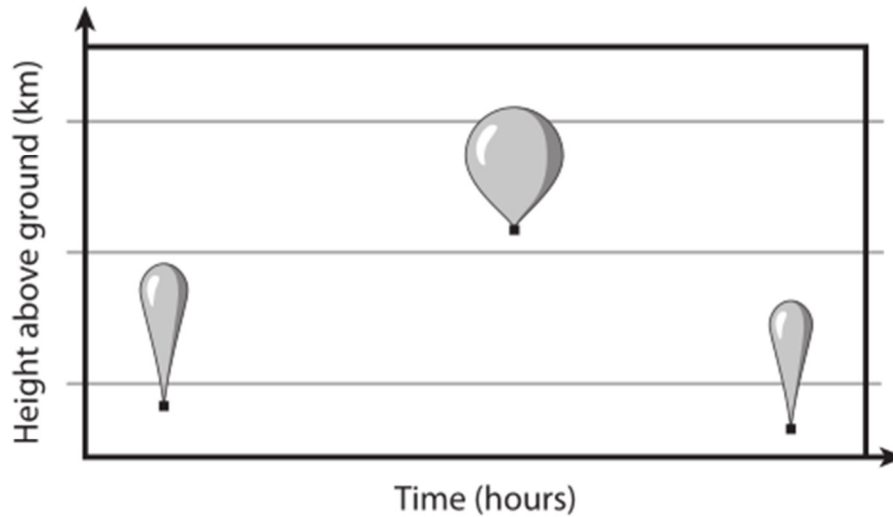
Which of the following statements would be evidence that the Earth is becoming warmer?

- Ⓐ a decrease in the size of Earth's polar ice caps
- Ⓑ a decrease in the average depth of Earth's oceans
- Ⓒ an increase in the number of volcanoes erupting
- Ⓓ an increase in the number of sunspots.

Benchmark 4

Knowing

The diagram shows the height above the ground of a helium-filled weather balloon during a period of several hours.



What causes the balloon to become bigger as its height above the ground increases?

- (A) Gravity decreases.
- (B) Atmospheric pressure decreases.
- (C) The balloon is heated by the Sun.
- (D) The balloon absorbs air.

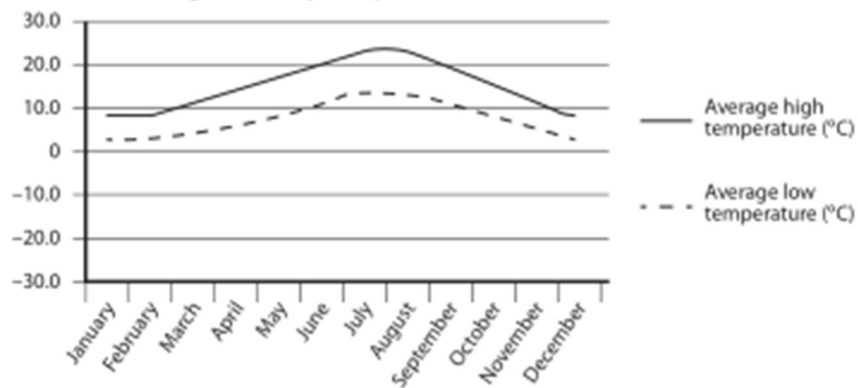
Applying

Look at the map below. The cities of London and Astana are marked.



The two graphs show the average monthly temperatures (°C) for London and Astana.

Average Monthly Temperatures for London (°C)



Average Monthly Temperatures for Astana (°C)

