6th Grade Science
Sample Assessment Items S6E2c.

When the North Pole is tilted toward the Sun, the Southern Hemisphere experiences _____.

A. fall
B. winter*
C. spring
D. summer

Daylight in the Northern Hemisphere lasts longer in summer than in winter, and the change in the length of day happens in a predictable pattern. Which statement correctly explains this condition of Earth's environment?

A. Earth turns slower in summer than it does in winter.
B. Earth, with its tilted axis, moves around the Sun in a predictable way.*
C. The Sun moves closer to Earth in summer and farther away in winter.
D. There is a predictable change in the amount of heat and light given off by the Sun.

Which is a result of the tilt of Earth’s axis?

A. days
B. months
C. years
D. seasons*

Which change would result in the same season year-round, everywhere on Earth?

A. Earth moving at least twice as fast in its orbit as it does now
B. straightening the tilt of Earth’s axis to be 90° to the plane of Earth’s orbit*
C. enlarging the diameter of Earth’s orbit until it is much farther from the Sun
D. changing Earth’s orbit so it would always be the same distance from the Sun

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The average temperature in Atlanta in June is 25°C, but the average temperature in December is 7°C. Why is the average temperature in Atlanta higher in June than in December?

A. The Sun is hotter during June than it is during December.
B. Earth is closer to the Sun in June than it is during December.
C. Earth's axis is tilted so that Atlanta gets more direct sunlight in June than in December.*
D. The atmosphere in Atlanta absorbs more heat from sunlight in June than in December.

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Why does ocean water near the equator absorb more heat throughout the year than ocean water near the North Pole?

Describe what would happen if the tilt of the Earth's axis was 0°.

What causes unequal heating of the earth's surface?

How does the unequal heating of the earth's surface influence weather?
