

6th Grade Science

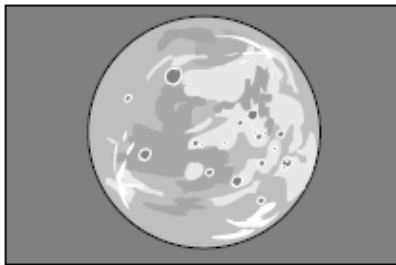
Sample Assessment Items S6E3d.Tides

The Moon has the greatest effect on Earth's _____.

- A. year
 - B. seasons
 - C. ocean tides*
 - D. daylight hours
-

During which of these phases of the moon will the tides be highest? Correct Answer: A

A



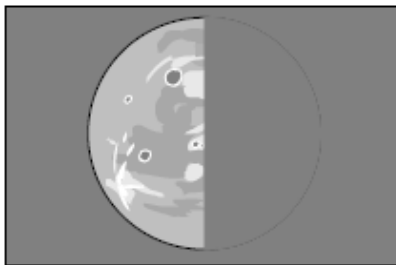
Full Moon

C



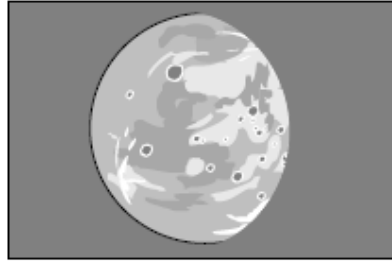
Crescent Moon

B



Quarter Moon

D



Gibbous Moon

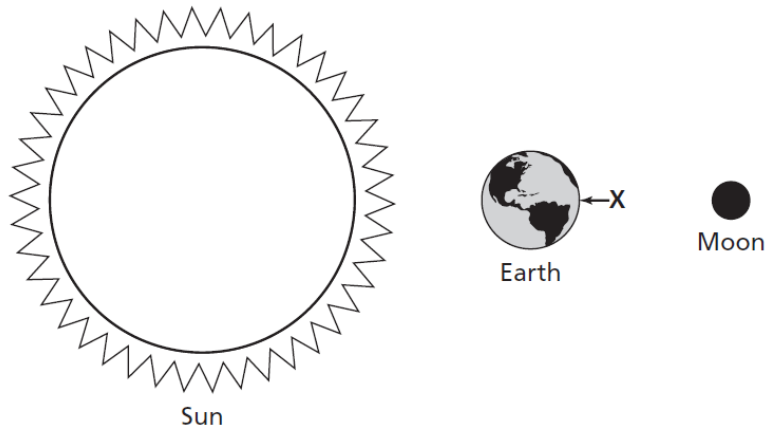
On most ocean shorelines, the water rises slowly and covers the land twice a day. Then it slowly falls back. What is this movement called?

- A. current
 - B. wave
 - C. tide*
 - D. drift
-

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A diagram of the sun, Earth, and the moon is shown below.



When the sun, Earth, and the moon are aligned in the positions shown in the diagram, what type of ocean tide occurs at location X?

- A. lowest high tides
 - B. highest high tides*
 - C. red tides near the coast
 - D. rip tides near the coast
-

The ocean's tides are caused by _____.

- A. strong winds
 - B. heat from the Sun
 - C. the Moon's gravity*
 - D. vibrations within Earth
-

High spring tides generally result from _____.

- A. heavy spring rains
 - B. thawing polar ice caps
 - C. mild earthquake activity
 - D. the alignment of Earth, the Moon, and the Sun*
-

What causes the tides in Earth's oceans?

- A. rotation of the Sun
 - B. solar energy from the Sun
 - C. Earth's revolution around the Sun
 - D. gravity due to the Sun and the Moon*
-

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Why are tides continually rising and lowering every day?

- A. because deep ocean currents are constantly changing
B. because the position of the Moon is constantly changing*
C. because rates of evaporation and precipitation are constantly changing
D. because the direction of the wind over the ocean is constantly changing

Why does the ocean cover different amounts of the beach at different times of the day?

- A. because the Moon's gravity pulls the ocean, causing it to rise and fall*
- B. because Earth wobbles as it rotates, causing the ocean to rise and fall
- C. because ocean currents change, adding sand to and removing sand from the beach
- D. because the sand is able to absorb more water as the temperature increases, lowering the ocean level

What is the main cause of ocean tides?

- A. energy from the sun
B. rotation of the earth
C. change in water temperature
D. gravitational pull of the moon*

Draw a diagram of the Earth, Sun, and Moon that would cause the highest tides.

Explain how gravity affects the Earth's tides.

Compare and Contrast a Spring Tide and a Neap Tide (include the positions of the Sun, Moon, and Earth).