

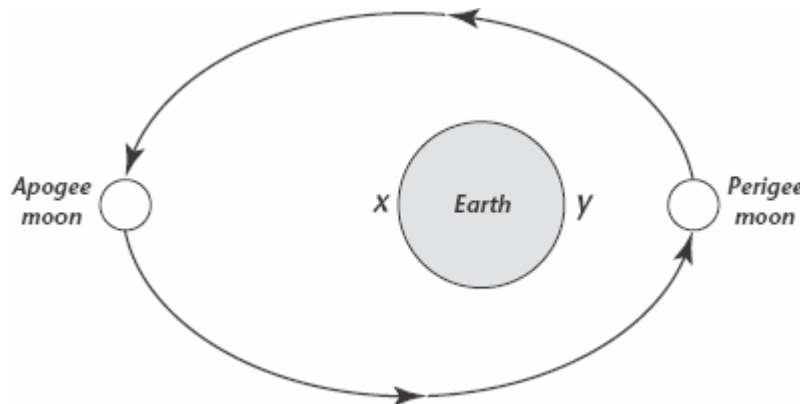
Enrich

Tides

The diagram below shows the moon's path around Earth is not a perfect circle. Read the passage and study the diagram. Then answer the questions that follow on a separate sheet of paper.

What Affects the Heights of Tides?

Just how high a high tide is at a given place and time depends on many factors. One factor that influences the height of tides is the shape of the moon's orbit. Its path around Earth is not a perfect circle. Rather, the moon's path has a more oval shape, closer to Earth at some points and farther at others. Because of this, the distance between Earth and the moon ranges from 375,000 kilometers to 408,000 kilometers. This difference is greater than the distance from New York City to Los Angeles. When the moon is closest to Earth, tides are usually high because the moon's pull is stronger when it is closer to Earth. These tides are called **perigee tides**. When the moon is farthest away from Earth, tides are usually low. These are **apogee tides**.



1. Would the daily tides at points x and y be higher during a perigee moon or an apogee moon? Explain.
2. Compare and contrast perigee tides and spring tides.
3. Like the moon's orbit, Earth's orbit is not a perfect circle, but an oval. How do you think this might affect Earth's tides?

