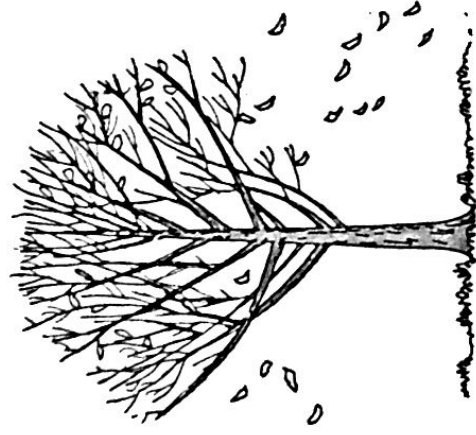


# Gravity

Name \_\_\_\_\_



The same force of gravity makes dead leaves fall to the ground and keeps the moon moving in a circle around Earth.

**Gravity** is a force that attracts, or pulls on, matter. On Earth, gravity attracts all matter to the ground. Leaves from a tree, raindrops, or a ball you throw in the air are all pulled to the ground by Earth's force of gravity.

Earth is not the only object that has gravity. All matter has gravity. The more mass matter has, the greater the force of its gravity. Earth has a great amount of mass. So the gravity of Earth itself is stronger than the gravity of anything on Earth. It is the pull of Earth's gravity that gives weight to all matter on Earth. How much you weigh is the amount of pull on the mass of your body.

The moon has gravity. Since the moon has less mass than Earth, it has less gravity. The moon's gravity is about one sixth as strong as Earth's. Why doesn't the motion of the moon make the moon fly off into space? The greater force of Earth's gravity pulls the moon. So instead of flying off into space or being pulled to Earth, the moon keeps moving in a circle around Earth.

All the other planets have gravity, too. So does the sun. Since the sun's gravity is the strongest, it pulls on all the planets. The planets keep moving in a circle around the sun.