The earth’s gravity pulls any object on or near the earth toward it without touching it. Every object exerts gravitational force on every other object. The force depends on how much mass the objects have and on how far apart they are. The force is hard to detect unless at least one of the objects has a lot of mass.

The sun’s gravitational pull holds the earth and other planets in their orbits, just as the planets’ gravitational pull keeps their moons in orbit around them. Everything on or anywhere near the earth is pulled toward the earth’s center by gravitational force.

The rotation of the earth on its axis every 24 hours produces the night-and-day cycle. This turning of the planet makes it seem as though the sun, moon, and stars are orbiting around the earth once a day. The earth is one of several planets that orbit the sun, and the moon orbits around the earth.

The earth’s gravity pulls any object on or near the earth toward it without touching it. Shapes such as circles, squares, and triangles can be used to describe many things that can be seen.

An unbalanced force acting on an object changes its speed or direction of motion, or both. Changes in speed or direction of motion are caused by forces.

The patterns of stars in the sky stay the same, although they appear to move across the sky nightly, and different stars can be seen in different seasons.

Like all planets and stars, the earth is approximately spherical in shape. Observations of the sky show that the sun, moon, and stars all appear to move slowly across the sky.

The way to change how something is moving is to give it a push or a pull.