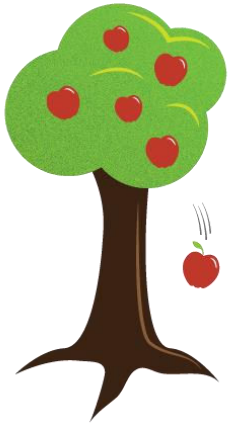


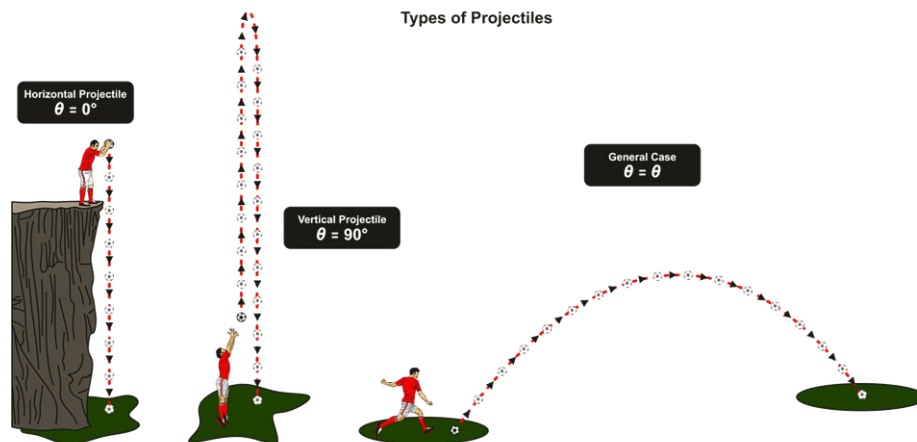
# Force & Motion

## Section 5: Gravity



Gravity is a force that every object in the universe exerts on every other object. This force causes things to fall toward the ground. The gravitational force will depend on the mass and distance between objects. **Weight** measures the gravitational force exerted on an object, measured in units called Newtons. The greater the object's mass, the stronger the gravitational force will be on it.

If you throw or kick a ball, it travels in a path called a trajectory. The distance and height it travels will depend on its speed and the angle from which it is launched. A **projectile** is anything that is thrown or shot through the air. It follows a curved path and can have horizontal motion or vertical motion.



The **centripetal force** is the force acting toward the center of a curved or circular path. "Centripetal" means towards the center. **Centripetal acceleration** is an acceleration toward the center of a curved or circular path.

### Review:

1. What two things does gravitational force depend on?
2. Define projectile.
3. Explain centripetal force.