

GRAVITY

Gravity- any two masses that exert an attractive force on each other.



Gravity depends on mass; distance between objects.

Weight- gravitational force exerted on an object; measured in units called Newtons.

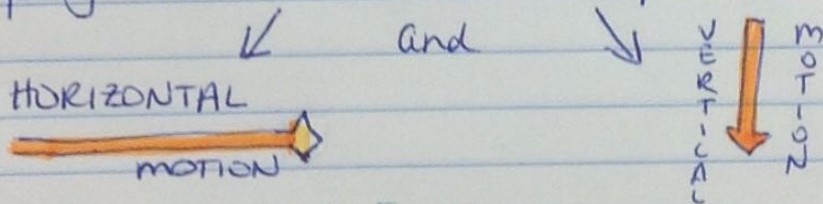
The greater the object's mass, the stronger the gravitational force on it.

PROJECTILE MOTION



Projectile- anything that is thrown or shot through air.

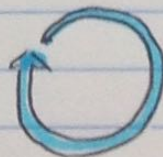
A projectile follows a curved path and has:



motion parallel to Earth's surface

motion perpendicular to Earth's surface

CENTRIPETAL FORCE



Centripetal acceleration- acceleration toward the center of a curved or circular path.

"centripetal" means toward the center.

Centripetal force- force acting toward the center of a curved or circular path.

Path of Projectiles

Directions: Using a football, each member of your group will perform one of the tasks below. You will then record what happened to the ball by drawing the scene from start to finish.

Cut and paste each scene into your Interactive Science Notebook. For each drawing you need to label the HORIZONTAL VELOCITY, VERTICAL VELOCITY and PATH OF BALL.

Throw as Far as Possible

Throw with Most Curve

Throw with Least curve

Kick the Ball