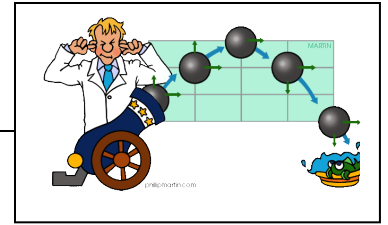


Week 20 – SCIENCE NOTE PAGE

Motion



Motion Compared to What?

- All motion is **relative**
- Scientists describe the motion of an object in relation to OR _____ **to**, some other object.

Different Kinds of Motion

- **Translational Motion:** when an object changes _____ from point A to point B
 - **Examples:**
 - Bike going downhill
 - Earth moving in a path around the sun (yearly orbit)
- **Rotational Motion:** _____ in place
 - **Examples:**
 - Bike wheels turning as bike moves
 - Earth spinning on its axis (night/day)
- **Vibrational Motion:** the rapid _____ movement of the kind found in particles that make up a substance.
 - **Examples:**
 - The rapid “bumping” **up-and-down motion** of the seat as the bike travels over rough ground.
 - Earth experiencing an earthquake where the ground **shakes** up and down.

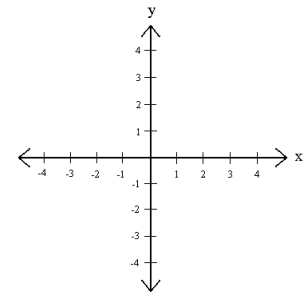
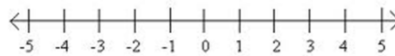


Describing Position

- **Coordinate System:** a set of reference points, lines, and/or directions by which the _____ of any point can be described (number line or x/y system)
- **Reference Point:** a point from which the position of other objects can be described

Examples:

- **Zero** on a number line
- **Origin** on x/y graph (0,0)



Displacement vs. Distance

- **Distance:** how far an object moves
 - **Example:** I walked **2 blocks** to my friend's house
- **Displacement:** the distance with direction that an object moves from a **reference point**.
 - **Example:** I walked 2 blocks _____ to my friend's house

