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**Section 1**

**Vocabulary**

**Position:** The location of an object

**Reference point**: A location to which another location is compared

**Motion:** An object's change in position relative to a reference point

**Speed:** The distance traveled divided by the time interval during which the motion occurred

**Vector:** A quantity that has both size and direction.

**Velocity:** speed of an object in a specific direction.

**What does GFF stand for?**

G- Given. Write what the equation is already giving you. (Ex: distance and time.)

F- Find. What do you have to find out? (Ex: speed)

F- Formula. What is the formula to figure out your answer? (Ex: d/t=s)

**Section 2 Vocabulary**

**Acceleration:** The rate when velocity changes. If it accelerates it does so in speed, direction, or both. **(acceleration = final velocity-starting velocity)**

 **time**

**Centripetal Acceleration:** the acceleration directed toward the center of a circular path**.**

**Negative Acceleration:** when an object slows down, it goes from a high velocity to a low velocity.

**Scalar vs Vector:**

Scalar doesn't relate to direction (related to speed).

Vector relates to direction, acceleration, and velocity.



**Section 3**

**Vocabulary**

**Force:** A push or pull

**Net force:** The combination of all forces action on one

**Inertia:** The tendency of all objects to resist change in motion

**Newton's Laws**

1. (Inertia) An object at rest will stay at rest and an object in motion will stay in motion, in the same direction and speed unless acted on by an unbalanced force.
2. The acceleration of an object depends on the mass of the object and the amount of force applied. F=ma.(f=force, m=mass, a= acceleration). Maintain the same speed, force and velocity unless it experiences an unbalanced force.
3. Whenever one object exerts a force on a second object, the second object exerts an equal and opposite force on the first.