**Dynamics and Free Body Diagrams**

**Dynamics:**

**Force:**

**Types of Forces**

**Balanced vs. Unbalanced Forces**

If forces on an object are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the object will experience no change in motion.

If forces on an object are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the object will experience a change in motion.

**Units of Force**

The unit of force is the

**Free Body Diagrams**

A Free Body Diagram (FBD) is a simple sketch of a single object that shows the forces acting on the object.



Ex. A person holds a book in the air. Draw the FBD of the book.

**Common Forces with Labels**

Ex. A box is sliding across the floor. Draw a FBD.

Ex. The box is being pushed up a ramp. FBD