**Newton’s First Law of Motion (Free –Body Diagrams)**

**Using the link on Google classroom read the section on Graphs of Motion and fill in the blanks on the following worksheet.**

<http://physics.info/newton-first/>

1. What is a Free Body Diagram? Who uses these diagrams?
2. Newton's first law of motion (also known as the law of inertia) states that…
	1.
	2.

* 1.

1. In general, inertia is resistance to change.
In mechanics, inertia is resistance to change in velocity (resistance to acceleration)
	1.
	2.
2. In general, a force is an interaction that causes a change.
In mechanics, a force is an interaction that causes a change in velocity (an interaction that causes acceleration)
	1.
	2.
3. Draw a free body diagram for the following.

A book lying on a level table. A wrecking ball hanging vertically from a cable.

A helicopter hovering in place. A child pushing a wagon on level ground.