Lesson 2 Newton's First Law

Predict *three facts that will be discussed in Lesson 2 after reading the headings. Record your predictions in your Science Journal.*

Main Idea

Identifying Forces

I found this on page _____.

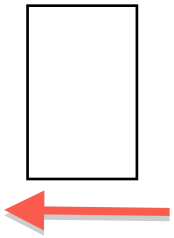
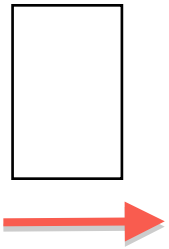
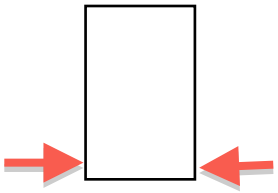
I found this on page _____.

I found this on page _____.

I found this on page _____.

Details

Draw *the described forces. Use labeled arrows to indicate the forces on a box, and show the* net forces *in the column to the right.*

Description	Drawing	Net force
1. A force of 200 N to the left and another force of 50 N to the left		250 N Left
2. A force of 100 N to the right and a force of 80 N to the left		20 N Right
3. A force of 180 N to the right and a force of 180 N to the left		Zero N

Identify *the forces in the table above as* balanced forces *or* unbalanced forces.

1. unbalanced
2. unbalanced
3. balanced

Main Idea

Details

Newton's First Law of Motion

I found this on page _____.

Summarize Newton's first law of motion.

If the net force on an object is zero,

- an object at rest will stay at rest.
- an object in motion will stay in motion.
- _____.

I found this on page _____.

Contrast *the motion of objects acted on by* balanced *and* unbalanced forces.

object's motion + balanced forces = unchanged velocity

object's motion + unbalanced forces = changed velocity

I found this on page _____.

Explain *the effect of* inertia *on objects at rest and objects in motion.*

to resist change (LAZY)

Why do objects stop moving?

I found this on page _____.

Summarize *how friction and* inertia *act on an object sliding on a flat surface.*

Interia...continues motion

Friction...slows motion

Synthesize It Look at the objects around you that are at rest. Explain why they are subjected to net forces of zero as opposed to no forces at all.

Forces stop motion....GRAVITY....FRICTION