

Name: _____

Period: _____

Date: _____

Unit 2, Lesson 3 Forces Digital Lesson

I. What are Forces?

A. When this person's foot hits the soccer ball, the ball will move forward. Why?

1. Because _____ moves from his foot to the _____, causing it to move.

2. A _____ is a _____ or _____ that causes a change in _____.

2. A _____ can _____ energy to an object and cause it to _____.

II. Types of Forces:

A. _____ is a force between _____ because of their _____.

1. Earth's _____ keeps us and others objects from _____ into space.

2. Gravity can work across great _____.

3. Gravity keeps the moon in _____ around the Earth!

4. It also keeps all the _____ orbiting the _____.

B. _____ Force (def. under picture) is a force between objects that are _____ each other.

1. You have pushed something to _____ it. That is applying a _____ force.

2. What keeps objects from moving forever?

a. Contact forces called _____ and _____ do.

C. _____ Force (def. under picture) is a _____ exerted between _____ poles.

1. Each magnet has a _____ pole and a _____ pole.

2. Opposite poles _____.

3. Like poles _____ each other _____.

D. _____ Force (def. under picture) pushes against any object that _____ on another _____.

1. Example in picture: _____

III. Newton's Laws

A. Newton's 1st Law (under picture): The law of _____ is Newton's first law.

1. Objects, like a stopped train, will stay at _____ unless another _____ makes them _____.

2. Objects that moving, like the other train, will _____ to do so until a _____ force makes them change _____ or _____.

B. Newton's 2nd Law (under picture) Force = _____ x acceleration.

C. Newton's 3rd Law (under picture) Every force has an _____ and _____ force.

IV. Balance and Unbalanced Forces

A. (Under pic) Balanced forces: _____ force equals _____; no change in _____.

For the motion of an object to _____, the forces acting on it must be _____; that is the _____ force on the object must _____ equal zero.

In Summary:

-Forces are a _____ or _____ acting on an object.

_____ forces cause _____ in motion.

-Forces act through _____ with an object or at a _____.

_____ forces to determine the _____ of motion.

-Equal and _____ forces acting on an object have a _____ of zero.