**GUIDED NOTES: NEWTON’S FIRST LAW OF MOTION**

**Name: Date:**

1. Isaac Newton’s Laws explain the properties of how objects \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. According to Newton’s First Law, an object at rest remains at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and an object in motion continues in motion with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_in a straight\_\_\_\_\_\_\_\_\_\_\_\_\_ unless the object experiences a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Newton’s first law of motion explains the behavior of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_on an object which results in the objects interaction with other objects.
5. The net force on an object is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ acting on an object.
6. A box is pulled to the right with a force of 90N and to the left with a force of 120N. What is the net force and in what direction?

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1. Newton’s first law of motion is also known as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the natural tendency of objects to resist any \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in their state of motion or rest.
3. The tendency of an object to resist change in its state of motion is dependent on the objects \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. The more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_an object has, the more

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_it has.

1. When a train suddenly starts, why do passengers fall backwards?

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1. How long will a ball rolling down a hill, continue to roll down

 the hill?

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1. In a collision between two vehicles, why do the passengers hit

 the windscreen?

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1. Give one example of the Law of Inertia in the working of a roller coaster?

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1. If you kick a stone as hard as you can, will it continue to move,

 or will it stop? Why? Explain your answer.

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1. Now imagine you are in outer space. And you kick a stone into

 space. Will the stone continue to move, or will it stop? Why?

 Explain your answer.

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