**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Speed, Velocity, Acceleration & Newton’s Laws Review**

1. **Speed** involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. **Velocity** involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. **Acceleration** involves a change in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and/or

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4. What is the triangle for speed?

5. What is the formula for calculating **Speed**?

6. What is the formula for calculating **Distance**?

7. What is the formula for calculating **Time**?

8. What is Sir Isaac Newton known for?

9. In terms of Newton’s 1st law (inertia), why is wearing your seatbelt a good idea?



10. What is the triangle for force?

11. What is the formula for calculating **Force**?

12. What is the formula for calculating **Acceleration**?

13. What is the formula for calculating **Mass**?

14. A ball with a **mass of 5 kg** and is **accelerating at 2 m/s2** while being thrown. About how much **force** was used to throw the ball? **Show your work** (formula, plug the numbers into the formula, and solve).

15. If you increase the mass and keep the same acceleration, how will the **force** change?

16. If you decrease the mass, but maintain (keep) the same amount of force as before you decreased the mass, what happens to the **acceleration**?

17. Draw a picture of a rocket launching with arrows that label the action and reaction forces showing how it relates to **Newton’s 3rd law**.

**OTHER THINGS:**

Know how to read a distance-time graph vs a speed-time graph.