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

**Motion test review**

**Key words:**

1. Distance
2. Displacement
3. Time
4. Speed
5. Velocity
6. Acceleration
7. Balanced forces
8. Unbalanced forces
9. Friction
10. Net force
11. Gravity
12. Weight
13. Mass
14. m
15. m/s
16. m/s2
17. kg
18. N
19. Inertia
20. Action/reaction forces
21. Distance v time graph
22. Velocity v time graph

**Key Questions**

1. If you blow up a balloon and let go of it without tying it what will happen?
2. How is this (#1) Newton’s 3rd law of motion?
3. Even if you are sliding across some very smooth ice, you gradually slow down and stop. Why?
4. Why don’t fish need to have bones as strong as people or other animals that live on the land?
5. Why don’t all things fall at the same speed if you drop them?
6. How do you determine how much inertia an object has?
7. Give 3 examples of Newton’s first law
8. What does it mean if an object has negative acceleration?
9. On a velocity v time graph, what does the slope of the line indicate? (remember: if you look at the rise over the run, what equation does that remind you of)
10. An orange is traveling at an initial velocity of 5 m/s west. It accelerates at a rate of 1m/s2 for 18 seconds. What is the orange’s final velocity?
11. If an object accelerates from 20m/s to 50 m/s in 3 seconds, what is its average acceleration?
12. On a distance v time graph, what does the slope of the line represent? (same hint as #7 but not same answer)
13. What is the velocity of a pickle that takes 0.9 seconds to travel a distance of 72 meters?
14. If a car is parked on a hill, what type of forces must be present?
15. What does it mean when an object has positive acceleration?
16. What is friction?
17. What is air resistance?
18. What does it mean if an object stops accelerating?
19. Draw a speed v time graph of an object slowing down.
20. What is required to calculate velocity?
21. What are the units for acceleration?
22. What is the unit for force?
23. What is the unit for velocity?
24. The force of gravity between two objects depends on these things:
25. What happens to gravitational force as distance increases?
26. Give 3 examples of balanced forces acting on an object.
27. Give 3 examples of unbalanced forces.
28. What does it mean if the net force on an object is zero?
29. What is net force?
30. What is acceleration?