

Name _____

Date _____

Force and Motion Study Guide

Know the following terms: force, inertia, motion, kinetic energy, gravity, friction, potential energy, air resistance, streamlining, insulation, thermal energy, electrical energy, elastic energy, sound energy

1. List AND describe the steps of the scientific method in order.

2. Explain the purpose for the scientific method.

3. A force is a _____ or a _____.

4. Forces can make objects do any of three things. List them.

5. What is friction?

6. How can friction be useful?

7. How can friction be bad?

8. Explain inertia. What happens if a car suddenly stops?

9. Describe one method to increase friction and one method to decrease friction.

10. Force = _____ *

11. Explain the relationship in question 10.

12. Friction with the air is called _____.
13. _____ is how fast an object changes speed or direction.
14. How can air resistance be useful? How can it be a problem?

15. Explain the difference between balanced forces and unbalanced forces.

16. Describe how streamlined shapes reduce air resistance.

17. Explain the difference between potential and kinetic energy.

18. Explain how energy changes from one form to another (think of tennis ball example).

19. Explain how insulation is used to prevent the transfer of energy.

20. Explain how heat transfers.

21. Explain how elastic energy can be used to create motion.

22. What is mass?