

Chapter 15: Objects in Motion

Name: _____

1. What is frame of reference?	1. allows you to determine how an object is moving.
2. What is friction?	2. force that slows or stops motion.
3. What kind of force is gravity?	3. force that pulls one object toward another object.
4. What is kinetic energy?	4. energy in motion
5. What is work?	5. the ability to move something
6. What is speed?	6. the rate in which an object changes direction
7. A teacher walks by a student's desk. The student's desk was in front of the teacher and now is behind the teacher. What term describes the change in the teacher's position compared to the desk?	7. relative motion
8. A train goes around a corner at the same speed it was traveling on a straight track. What is this an example of?	8. acceleration

9.To find the velocity of a moving car, what information do I need?	9. I need the acceleration which is speed and direction.
10. What kind of ball would require the least amount of force to move it 3 m?	10. table tennis ball
11. Which student moved her box a greater distance if they had the box had the same mass and they moved them for 6 seconds?	11. the student who pushed the box with more force
12.How does a guitar string move when plucked?	12.it will be an object that moves back and forth
13. If two dogs are pulling on a toy and it is not moving toward either dog, what is happening?	13. The dogs are pulling with the same amount of force
14. What happens if balanced forces are applied to a moving object?	14. The object keeps moving at the same speed and direction.
15. What is a surface that would slow a ball down quite a bit?	15. a grassy field

16. What unit is force measure in?

16. Newton

17. A student is holding a football and is ready to release it, but has not done so yet. What kind of energy does the football have?

17. potential energy

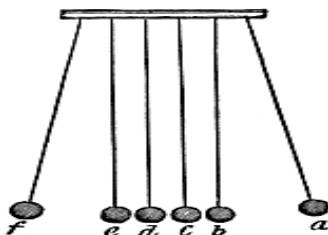
18. Describe a contact force and a noncontact force that affect the motion of a baseball after a pitcher has thrown the ball.

18. The ball is pulled toward Earth by gravity, a noncontact force. The ball is pushed away from the bat when the bat strikes the ball. The bat striking the ball is a contact force.

19. How do distance and mass affect the force of gravity between objects?

19. The force of gravity is stronger between objects that are closer together. As the objects move farther apart, there is less force between more massive objects. As the masses of the objects are reduced, there is less force of gravity between the objects.

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af=potential energy=
stored energy

edcb=kinetic energy=
energy of motion