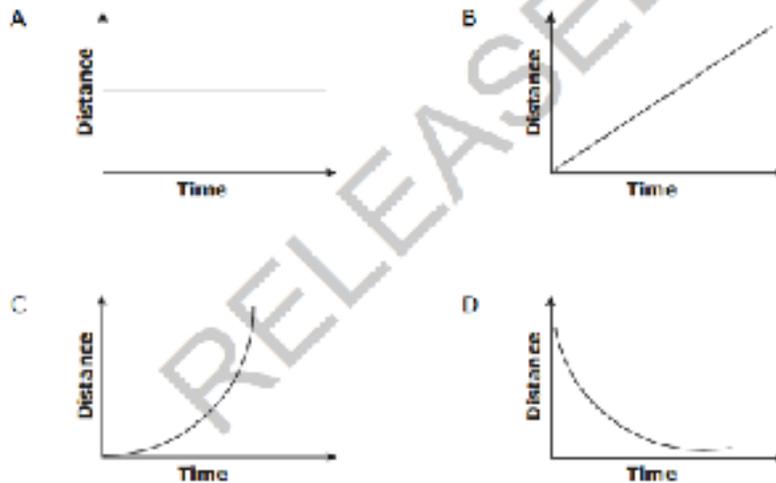


Name _____ Number _____

Science Study Guide

1. Four solid balls, each with a different mass, are moving at the same speed. Which ball would require the most force to stop its motion
- A. A ball with a mass of 5 kg
 - B. B ball with a mass of 10 kg
 - C. C ball with a mass of 15 kg
 - D. D ball with a mass of 20 kg

2. Which graph represents an object that is decreasing in speed?



3. A girl walked for 30 minutes. She noticed that she traveled farther in the first 15 minutes of her walk than in the second 15 minutes. What can she conclude about her walk?

- A She walked over many hills.
 - B Her average speed was faster during the first half of her walk.
 - C She walked in two different directions.
 - D She was walking at a constant speed.
4. In which way are evaporation and condensation similar?
- A Both cause decreases in air temperature.
 - B Both cause increases in air temperature.
 - C Both are caused by the warming of the atmosphere.
 - D Both are caused by changes in heat energy.
5. Which is an example of a different substance being formed?
- A glass breaking
 - B metal melting
 - C water freezing

D wood burning

6. Which is most responsible for the uneven heating of the air in the atmosphere?
- A radiation
 - B convection
 - C conduction
 - D condensation
7. A pot is heated on a stove. Which process causes the metal handle of the pot to also become hot?
- A combustion
 - B convection
 - C radiation
 - D conduction
8. Which best describes why winds at the beach change direction between day and night?
- A because the temperatures over land and over water change
 - B because warm air over land sinks and stays in place over land
 - C because cool air rises and is replaced by warm air from the ocean
 - D because cool air sinks and stays in place over land
9. Which will most likely result from a low-pressure weather system?
- A warm temperatures
 - B cloudy conditions
 - C clear conditions
 - D cool temperatures
10. Which is the best explanation for how air masses move across the United States?
- A The prevailing westerlies move air masses from west to east across the United States but may be deflected by the jet stream.
 - B The trade winds move air masses from west to east across the United States.
 - C The jet stream moves air masses from the Pacific Ocean across the United States.
11. Which has the greatest effect on wind speed?
- A precipitation
 - B cloud cover
 - C wind direction
 - D air pressure
12. Which is an example of a single-celled organism?
- A amoeba
 - B insect
 - C fish
 - D worm
13. Why do multicellular organisms need transport systems?
- A Most have cells that are not able to exchange gases with the outside environment.
 - B Most have cells that are unable to grow and survive in their environment.

- C Most have cells that need food from sources outside their environment.
- D Most have cells that require more energy to survive than single-celled organisms.

14. Which organism is a producer?

- A frog
- B mushroom
- C grass
- D lizard

15. Which is most responsible for recycling dead plants and animals in an ecosystem?

- A water
- B bacteria
- C fish
- D insects

16. How would the woodpecker population in a forest area most likely be affected if a housing development is built in that area?

- A They would produce more offspring.
- B They would change the color of their feathers.
- C They would experience a decrease in available food.
- D They would experience a decrease in competition.

17. Which best describes the speed of a ball as it is thrown straight up into the air and comes back down?

- A The ball goes up at a constant speed, stops, then comes down at a constant speed.
- B The ball goes up at a constant speed, stops, and increases speed as it comes down.
- C The ball goes slower and slower as it goes up, stops, and then goes faster and faster as it comes down.
- D The ball goes slower and slower as it goes up, stops, and then comes down at a constant speed.

18. What can cause a moving object to increase its speed in a forward direction?

- A a force pushing on the object from the opposite direction
- B a force that continually acts on the object in the direction the object is moving
- C an increase in the mass of the object
- D a decrease in the mass of the object

19. After a rain, a puddle of water remains on a sidewalk. After a day of sunshine, the puddle is gone. Which process is most responsible for the disappearance of the puddle?

- A precipitation
- B transpiration
- C evaporation
- D condensation

20. A student notices that an inflated balloon gets larger when it is warmed by a lamp. Which best describes the mass of the balloon as a result of this change?

- A The mass of the balloon increases because the size of the balloon has increased.

B The mass of the balloon increases because the temperature of the balloon has increased.

C The mass of the balloon stays the same because the gas inside the balloon still has the same mass after it warms up.

D The mass of the balloon stays the same because warming decreases the mass enough to cancel out the effect of increasing the size.