TEST NAME: **Mixed Science Review**
TEST ID: **4537999**
GRADE: **05 - Fifth Grade**
SUBJECT: **Life and Physical Sciences**
TEST CATEGORY: **School Assessment**

Student: _____

Class: _____

Date: _____

1. A cold front will move through Raleigh late Wednesday afternoon. Which type of weather conditions will Raleigh ***most likely*** experience during that time?

   A. cooler temperatures Tuesday, clear skies late Wednesday, and warm temperatures on Thursday

   B. warmer temperatures Tuesday, clear skies late Wednesday, and cooler temperatures on Thursday

   C. warmer temperatures Tuesday, stormy weather late Wednesday, and cooler temperatures on Thursday

   D. cooler temperatures Tuesday, stormy weather late Wednesday, and warmer temperatures on Thursday

2. On a hot summer day, cumulus clouds grow taller and darker. Which type of weather will ***most likely*** occur?

   A. clear skies

   B. a hurricane

   C. a thunderstorm

   D. several snowy days

3. This chart shows the current weather data for four cities.

City	Temperature	Clouds	Air Pressure	Precipitation
City W	83°	yes	high	?
City X	74°	no	high	?
City Y	67°	yes	low	?
City Z	52°	no	low	?

Which city is ***most likely*** to experience precipitation?

A. City W

B. City X

C. City Y

D. City Z

4. Which conditions are needed for a hurricane to form?

A. warm, dry air rising over warm areas on the land

B. warm, dry air rising over warm areas in the ocean

C. warm, moist air rising over warm areas on the land

D. warm, moist air rising over warm areas in the ocean

5. Which weather pattern has the ***most*** influence on the weather in North Carolina?

A. Polar Easterlies

B. Polar Westerlies

C. Prevailing Easterlies

D. Prevailing Westerlies

6. A rabbit depends on various plants in an ecosystem to survive. Which would ***most likely*** happen if a drought decreased the plant population?

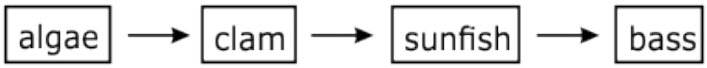
   A. The rabbit population would increase.

   B. The rabbit population would decrease.

   C. The rabbit population would remain the same.

   D. The rabbit population would increase, then decrease quickly.

7. The diagram below is an aquatic food chain.



   Which will ***most likely*** occur if there is overfishing and a loss of clams?

   A. The amount of algae would increase and the number of bass would increase.

   B. The amount of algae would decrease and the number of bass would increase.

   C. The amount of algae would increase and the number of bass would decrease.

   D. The amount of algae would decrease and the number of bass would decrease.

8. This diagram shows a simple ocean food chain.

   algae → fish → seal

   Which will ***most likely*** occur if the fish population decreases?

   A. The algae and seal populations will increase.

   B. The algae and seal populations will decrease.

   C. The algae population will increase, and the seal population will increase.

   D. The algae population will increase, and the seal population will decrease.

9. Why are animals like deer, raccoons, bears, and coyotes sometimes seen in neighborhoods?

A. because it is easier to find food

B. because they can escape predators

C. because their habitats are increasing

D. because their habitats are decreasing

10. The diagram below is a simple grassland food chain.

grass → mouse → snake

If a predator of the snake were introduced to the ecosystem, which would ***most likely*** happen?

A. The grass population would increase.

B. The snake population would increase.

C. The mouse population would increase.

D. The mouse population would decrease.

11. How does the sun warm a person's face?

A. through evaporation

B. through conduction

C. through convection

D. through radiation

12. Which causes surface water in a lake to heat up during the hot summer?

A. conduction

B. convection

C. evaporation

D. radiation

13. Which ***best*** describes heat transfer due to convection?

A. It occurs with direct contact.

B. It occurs only during the day.

C. It occurs with movement of a fluid.

D. It occurs only when something is burning.

14. Which ***best*** describes an example of heat transfer through radiation?

A. getting warm in front of a portable heater

B. burning your finger on a curling iron

C. ironing a dress shirt and tie

D. cooking soup on the stove

15. Why is copper often used to line the bottom of cookware?

A. Copper cools quickly.

B. Copper is inexpensive.

C. Copper is a good insulator.

D. Copper is a good conductor.

16. Which is an example of a learned behavior?

A. a dog scratching an itch

B. a fish breathing through gills

C. a kitten having whiskers on its face

D. a cheetah successfully hunting prey

17. William and Owen are brothers who have blond hair, green eyes and freckles. They both are skilled basketball players and play the guitar. Which two characteristics are ***most likely*** learned?

A. eye color and hair color

B. freckles and ability to play the guitar

C. eye color and ability to play basketball

D. ability to play the guitar and ability to play basketball

18. Daniel's cat had five kittens. Three are brown and two are a brown and black mix. Which can be concluded about the kittens' parents?

A. Both the mother and father are black.

B. Both the mother and father are brown.

C. The kittens got their color from both their parents.

D. The kittens got their color from their environment.

19. Which are inherited characteristics?

A. dimples, freckles, curly hair

B. height, freckles, liking vegetables

C. eye color, music preference, handedness

D. playing a musical instrument, eye shape, hair color

20. Which is an inherited characteristic?

A. speaking

B. hair style

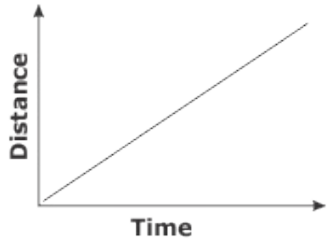
C. nose shape

D. playing baseball

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

A.

B.



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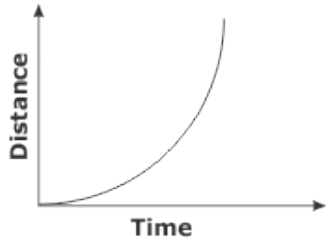

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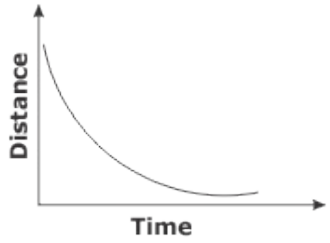
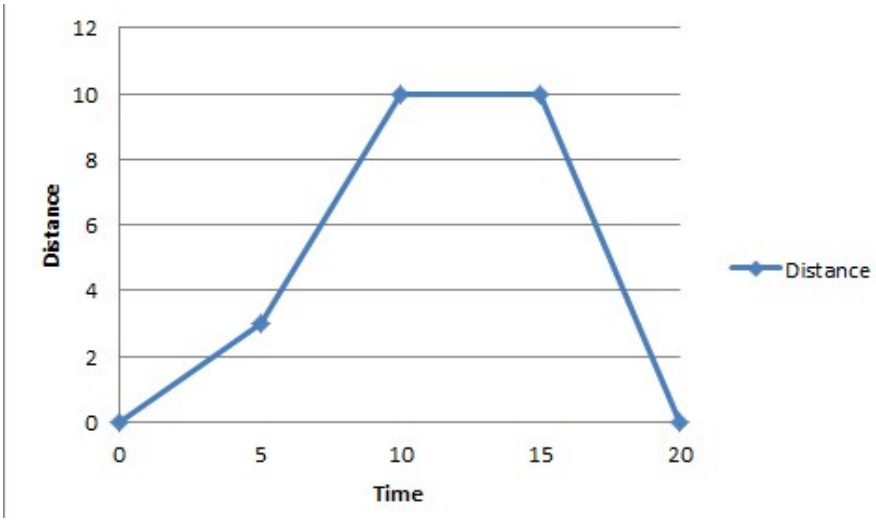


22. Below is a distance time graph that shows the motion of a student on a walk. Which statement best describes the students' motion?



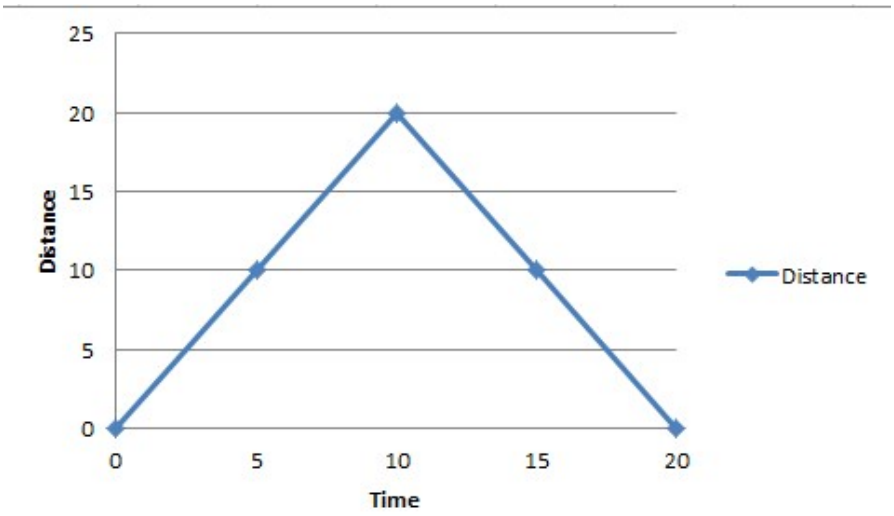
A. The student walks slowly at first, then increases their speed, stops, and very quickly returns to the starting point.

B. The student walks up a hill at the beginning, and then has a flat surface, and then walks down a hill at the end.

C. The student is going faster and faster in the last two minutes.

D. The student starts out moving very fast, slows down in the middle of the walk, and then speeds up again at the end.

23. A student went on a walk, and kept track of their time and distance. The data is displayed in the graph. Which best describes the student's walk?



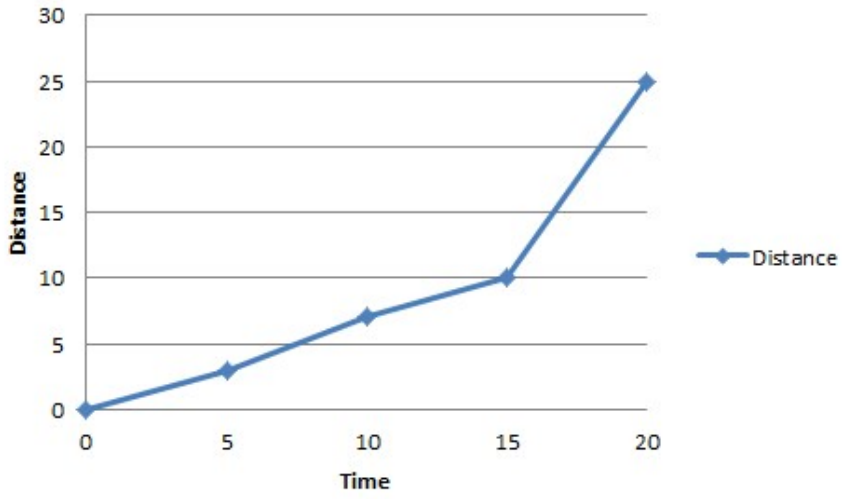
A. The student went up a hill, and then down a hill.

B. The student walked very quickly at the beginning of the walk, but then slowed down at the end.

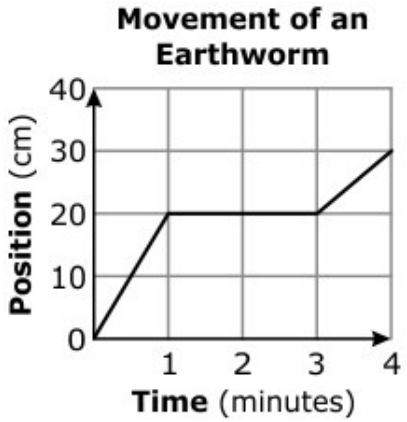
C. The student walked slowly at the beginning of the walk, and faster at the end.

D. The student walked at a steady pace, and then returned to the starting point.

24. A student goes on a bike ride, and graphs their motion. Explain the motion of the student's bike ride.



25. This graph shows the movement of an earthworm.



Gavin and Maddy observed an earthworm crawling on the sidewalk for four minutes. When did the earthworm move the greatest distance?

A. between 0 and 1 minutes

B. between 1 and 2 minutes

C. between 2 and 3 minutes

D. between 3 and 4 minutes

26. Maya adds 6 grams of sugar to a bottle containing 14 grams of warm water. What is the total weight of the sugar and water?

A. 6 grams

B. 8 grams

C. 14 grams

D. 20 grams

27. A balloon with a mass of 5 grams is blown up and popped. If all the pieces are weighed what would be their total mass?

A. 2.5 grams

B. 5 grams

C. 7.5 grams

D. 10 grams

28. Elsa is making a grilled ham-and-cheese sandwich. She uses a 20-gram slice of cheese, 40 grams of sliced ham, and two 15-gram slices of bread. After she heats the sandwich on a griddle, the cheese is melted. What will be the mass of her sandwich?

A. 55 grams

B. 60 grams

C. 75 grams

D. 90 grams

29. A 100 kg rock is broken into five smaller rocks for a garden. What is the total mass of all five smaller rocks?

A. 20 kg

B. 50 kg

C. 100 kg

D. 500 kg

30. Johnny tore a sheet of paper into pieces. How does the mass of all the pieces compare to the mass of the sheet before it was torn?

A. The total mass of the pieces would be greater than the mass of the whole sheet.

B. The total mass of the pieces would be less than the mass of the the whole sheet.

C. The total mass of the pieces would be more than twice the mass of the whole sheet.

D. The total mass of the pieces would be the same as the the mass of the whole sheet.

31. How can a *Paramecium* carry out all of life's functions?

A. by having specialized cells

B. by being larger that most organisms

C. by being smaller that most organisms

D. by performing all processes in one cell

32. Which is the order of cellular organization from ***least*** to ***most*** complex in multicellular organisms?

A. cell, tissue, organ, organ system, organism

B. tissue, cell, organ, organ system, organism

C. cell, organ, tissue, organ system, organism

D. organism, organ, organ system, tissue, cell

33. What is the difference between single-celled organisms' and multicellular organisms' ability to survive?

A. Multicellular organisms depend on other organisms for survival, while single-celled organisms do not.

B. Single-celled organisms depend on other organisms for survival, while multicellular organisms do not.

C. Single-celled organisms contain many specialized cells necessary for survival, while multicellular organisms do not.

D. Multicellular organisms contain many specialized cells necessary for survival, while single-celled organisms can survive alone.

34. Which ***best*** explains why a human needs many cells to survive?

A. Each individual cell is too small to function alone.

B. Each cell joins with other cells to form one massive cell.

C. Each cell works with other cells to perform all necessary life functions.

D. Each cell absorbs a different gas from the environment necessary for human survival.

35. Which accurately explains how an organism is capable of survival?

A. An amoeba can perform all of life's processes even though it is single-celled.

B. A grasshopper can live off only one food source even though it is single-celled.

C. A fish can exist if it lives in a group with many organisms even though it is single-celled.

D. An earthworm can survive by using its long, straight digestive system even though it is single-celled.