

Name: \_\_\_\_\_

Date: \_\_\_\_\_

---

1. Some birds fly south for the winter. Birds know when and where to fly because of —

- A. camouflage
- B. mimicry
- C. instinct
- D. hibernation

*Permission has been granted for reproduction by the Virginia Department of Education  
© Virginia Department of Education*

---

2. All vertebrate animals have

- A. scales.
  - B. warm blood.
  - C. backbones.
  - D. hair.
- 

3.

Predict the results of this experiment.

Weigh a classmate. Record. Have them remove their shoes and socks. Weigh items and record. They should remove any other items that they can (outer shirt, watch, jewelry, jacket). Weigh items and record. Weigh the classmate again and add all the item weights together.

Compare the results of the first weigh in to the last. What conclusion do you reach?

- A. The last weight is less.
  - B. The numbers add up to more than the original weigh in.
  - C. The individual parts weigh less on the classmate than they do by themselves.
  - D. The weight is the same at the end as the beginning when all parts are added together.
- 

4.

Some bacteria can be beneficial because they produce

- A. cheese.
  - B. fruit.
  - C. water.
  - D. energy.
- 

5. Stone Mountain in Georgia is a granite dome that formed deep underground. Over time, uplift and erosion exposed the granite. What natural activity is MOST responsible for breaking down the mountain today?

- A. faulting
  - B. weathering
  - C. stream erosion
  - D. lightning
-

6. Which process is a physical change?

- A. Rusting iron
- B. Burning coal
- C. Tarnishing silver
- D. Melting ice

*Permission has been granted for reproduction by the Virginia Department of Education  
© Virginia Department of Education*

---

7.

Gary walks in the house and turns on the light. What could he do that would make this circuit open?

- A. remove the light bulb
  - B. leave the light operational
  - C. replace the bulb with a dimmer bulb
  - D. extend the wire from the switch to the light
- 

8. Muddy areas are usually found at the mouths of large rivers. These areas are caused by

- A. decayed vegetable matter.
  - B. underwater volcanoes.
  - C. soil erosion upstream.
  - D. mountain building.
- 

9. Which common human disease is caused by an organism in the Kingdom Fungi?

- A. tuberculosis
  - B. athlete's foot
  - C. walking pneumonia
  - D. influenza
- 

10. A biologist discovers a new multicellular organism. The biologist is not sure if it is a plant or an animal. She decides to look at the cells under a microscope. Which structure would **best** indicate that the organism is a plant?

- A. chloroplast
  - B. Golgi body
  - C. ribosome
  - D. lysosome
- 

11. Plastic, wood, and iron are ALL made of

- A. energy.
  - B. plant or animal cells.
  - C. carbon molecules.
  - D. atoms.
-

12.

What type of change will occur when an ice cube melts and becomes a liquid?

- A. property change
  - B. chemical change
  - C. physical change
  - D. chemical reaction
- 

13. What is the purpose of the plastic coating usually found on electric wires?

- A. to strengthen the wires
  - B. to prevent electric shocks
  - C. to make better connections
  - D. to keep the wires from getting hot
- 

14.

What type of change occurs when new compounds form?

- A. chemical
  - B. physical
  - C. liquids will change
  - D. no changes will occur
- 

15. **How is a fish different from a jellyfish?**

- A. A fish has a backbone.
- B. A fish is in the animal kingdom.
- C. A fish can reproduce.
- D. A fish lives in water.

*Permission has been granted for reproduction by the Virginia Department of Education  
© Virginia Department of Education*

---

16. The mass of a solid object stays the same until

- A. it is put into orbit in space.
  - B. it changes volume by expanding or contracting.
  - C. matter is added to or taken away from the object.
  - D. the object is taken to another planet where the force of gravity is different.
- 

17.

Which of the following is a benefit of microorganisms?

- A. They do not multiply.
  - B. They are used to make medicine.
  - C. They feed on living things.
  - D. They remove minerals from the soil.
-

18. "Rivers" of water in oceans and other bodies of water are called

- A. currents.
  - B. tides.
  - C. surf.
  - D. sandbars.
- 

19. Kim puts an ice cube in a beaker and it melts. This is a good example of

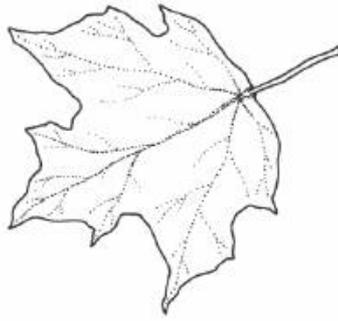
- A. a physical change.
  - B. a chemical change.
  - C. an experiment.
  - D. an analysis.
- 

20.

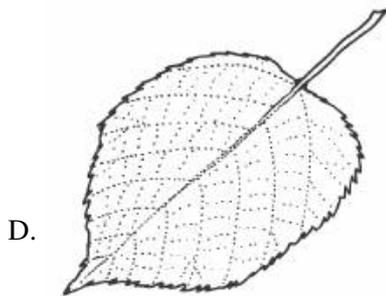
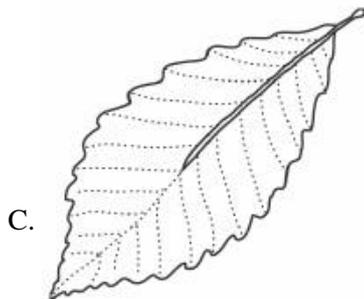
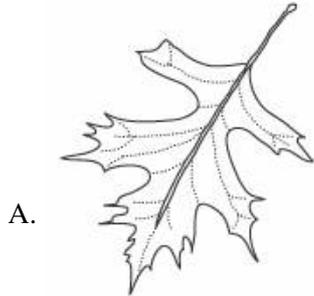
Which is best used to observe cells and their structure?

- A. binoculars
  - B. microscopes
  - C. telescopes
  - D. the naked eye
-

21. The picture below shows a leaf from a sugar maple tree.



Which of the following tree leaves is **most likely** from a tree that is closely related to the sugar maple?



22.

Which of these is the correct definition for a gene?

- A. a single cell organism
  - B. a string of Mitochondrial DNA
  - C. non-hereditary traits such as learned behaviors
  - D. a hereditary unit consisting of a sequence of DNA
- 

23. Which does NOT cause erosion?

- A. water
  - B. sunlight
  - C. wind
  - D. ice
- 

24.

When we forget to wash our hands, or don't wash them properly, we are doing which of the following?

- A. spreading beneficial microbes to other people, or giving them to ourselves by touching our eyes, mouths, noses or cuts on our bodies
  - B. spreading harmful microbes to other people, or giving them to ourselves by touching our eyes, mouths, noses or cuts on our bodies
  - C. not washing our hands will not spread disease or germs to other people
  - D. spreading both beneficial and harmful microbes to other people
- 

25. Marta has a radio in her room. It requires electricity in order to play. Which of the following is necessary in order for electricity to move from the source to the radio?

- A. a circuit
- B. a magnet
- C. a light bulb
- D. an insulator

**Answer Key**

1. C) instinct
2. C) backbones.
3. D) The weight is the same at the end as the beginning when all parts are added together.
4. A) cheese.
5. B) weathering
6. D) Melting ice
  
7. A) remove the light bulb
8. C) soil erosion upstream.
9. B) athlete's foot
10. A) chloroplast
11. D) atoms.
12. C) physical change
13. B) to prevent electric shocks
14. A) chemical
15. A) A fish has a backbone.
  
16. C) matter is added to or taken away from the object.
17. B) They are used to make medicine.
18. A) currents.
19. A) a physical change.
20. B) microscopes



21. B)

22. D) a hereditary unit consisting of a sequence of DNA

23. B) sunlight

24. B) spreading harmful microbes to other people, or giving them to ourselves by touching our eyes, mouths, noses or cuts on our bodies

25. A) a circuit