

Science Study Guide (doddphysicalcrct)

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

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

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1. 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

*This online assessment item contains material that has been released to the public by the Massachusetts Department of Education.*

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2. If enough heat is taken away from a container of water, what will happen to the water?

- A. It will begin to boil.
- B. It will become a solid.
- C. It will turn into a gas.
- D. It will increase in weight.

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3. When electricity moves through a metal wire, the wire is

- A. a conductor.
  - B. an insulator.
  - C. a generator.
  - D. a multiplier.
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4. Which is an example of a chemical change?

- A. paper being burned
  - B. metal being melted
  - C. a board being cut in half
  - D. water being boiled
- 

5. What happens when a piece of wood burns?

- A. A physical change takes place.
  - B. A chemical change takes place.
  - C. The wood loses its gravity.
  - D. The wood loses its inertia.
-

6. 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.
- 

7. Which material conducts electricity?

- A. piece of glass
  - B. cotton T-shirt
  - C. rubber ball
  - D. copper coin
- 

8.

*Use the table below to answer this question.*

<b>Mineral</b>	<b>Vinegar Drops Produce Bubbles</b>
limestone	yes
sandstone	probably not
granite	no
gneiss	no

Vinegar is an acid that bubbles when it interacts with calcite. Which mineral contains calcite?

- A. limestone
  - B. sandstone
  - C. granite
  - D. gneiss
- 

9. An example of a liquid turning into a gas is

- A. a chocolate bar melting.
  - B. an ice cream cone dripping.
  - C. a stick of butter getting warm.
  - D. steam escaping from a cup of hot chocolate.
- 

10. What happens when water boils?

- A. The solid water becomes a liquid.
  - B. The liquid water becomes a solid.
  - C. The liquid water becomes a gas.
  - D. Water vapor becomes liquid water.
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11. An example of a solid turning into a liquid is

- A. water vapor turning into water.
  - B. water turning into water vapor.
  - C. water freezing into ice.
  - D. ice melting into water.
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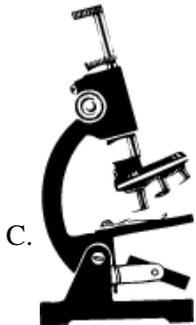
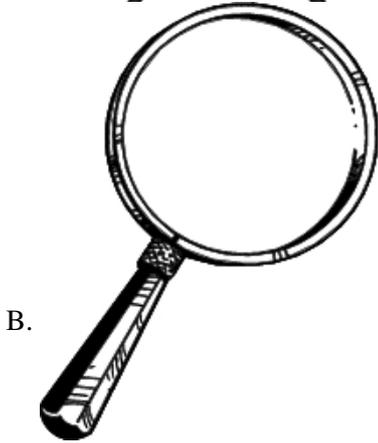
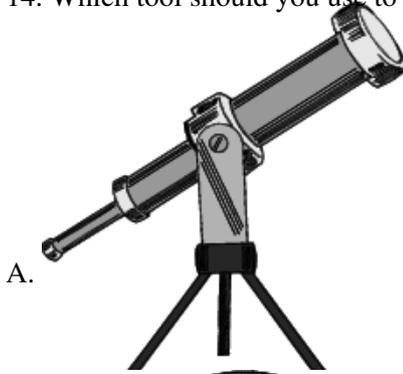
12. Which of the following is an example of MELTING?

- A. stirring some sugar in water until you cannot see the sugar
  - B. heating a pan of water until the water is all gone
  - C. heating a block of ice until the ice turns to water
  - D. cooling water in the freezer until the water becomes solid
- 

13. To have an electric current when using batteries, there MUST be a

- A. complete circuit.
  - B. switch.
  - C. lightbulb.
  - D. motor.
-

14. Which tool should you use to look at plant cells?



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15. Which of these is a conductor?

- A. a short length of string
  - B. a plastic drinking straw
  - C. a piece of aluminum foil
  - D. a piece of chalkboard chalk
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16. Toni's class grows sugar crystals. Her teacher asks each student to sketch the shape of the sugar crystals. What will help Toni see the shape of the crystals?

- A. a satellite
  - B. a telescope
  - C. a magnifying glass
  - D. a pair of binoculars
- 

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

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

18.

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.
- 

19.

To study diseases that might be contained in a patient's blood, which tool might a doctor use?

- A. telescope
  - B. microscope
  - C. electromagnet
  - D. intense light source
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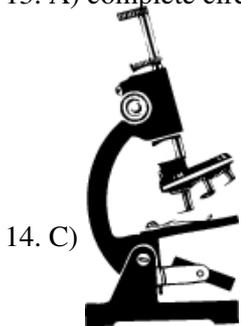
20.

If a repairman is working on a small watch, why might he need to use a magnifying glass?

- A. to see the tiny parts of the watch
- B. to increase the light on the watch
- C. to make the watch smaller
- D. to correct his vision

**Answer Key**

1. A) a circuit
2. B) It will become a solid.
3. A) a conductor.
4. A) paper being burned
5. B) A chemical change takes place.
6. A) a physical change.
7. D) copper coin
8. A) limestone
9. D) steam escaping from a cup of hot chocolate.
10. C) The liquid water becomes a gas.
11. D) ice melting into water.
12. C) heating a block of ice until the ice turns to water
13. A) complete circuit.



15. C) a piece of aluminum foil
16. C) a magnifying glass
17. D) atoms.
18. D) The weight is the same at the end as the beginning when all parts are added together.
19. B) microscope
20. A) to see the tiny parts of the watch