

Georgia
CRCT
online



6th Science Test B

Sixth Grade Science
Test

Practice Test

Name: _____

Date: _____

Instructions:

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1. Which is **not** an example of potential energy?

- A. rolling a ball
 - B. your uneaten lunch
 - C. gasoline in a car
 - D. water behind a dam
-

2. Which formula is used to calculate density?

D density

m mass

v volume

- A. $D = m/v$
 - B. $D = v/m$
 - C. $D = v+m$
 - D. $D = v-m$
-

3. Suppose you had four spoons the same size and shape made out of glass, plastic, steel, and wood. Which spoon handle would get hot the quickest when the spoons are placed in a pan of hot water?

- A. the glass spoon
 - B. the plastic spoon
 - C. the steel spoon
 - D. the wooden spoon
-

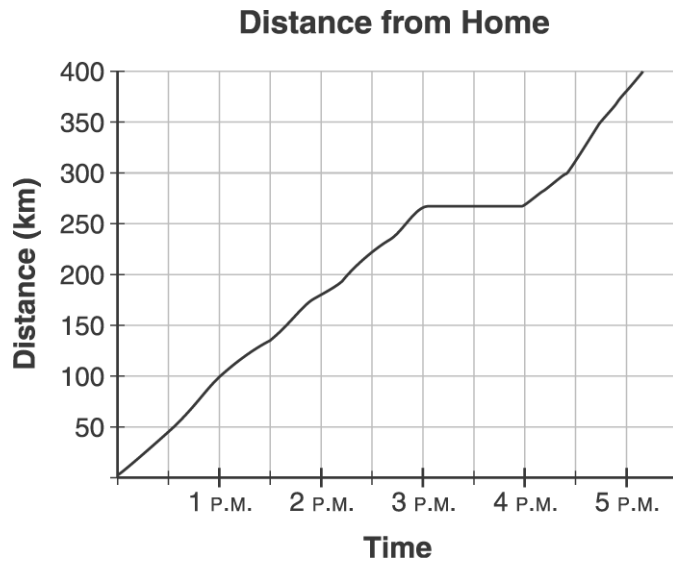
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4. The Smiths are driving to Florida. The graph below shows the change in distance from their home as they drive.



Which describes what **most likely** happened between 3:00 p.m. and 4:00 p.m.?

- A. They were driving on a smooth, flat road.
 - B. They were driving at a very steady speed.
 - C. They went through a town with many traffic lights.
 - D. They stopped to get some supplies.
-
5. If you saw an ice cube sink after it was placed in what you thought was a glass of water, which question should you probably ask?
- A. What kind of liquid is in the glass?
 - B. Will the ice melt slower or quicker?
 - C. How fast did the ice cube sink?
 - D. How soon would the ice cube start to float?
-

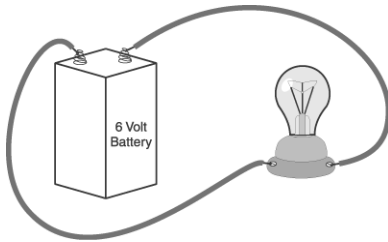
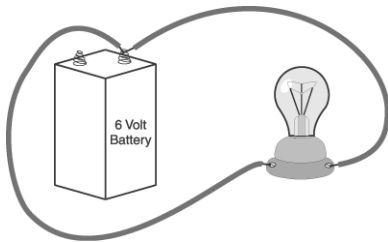
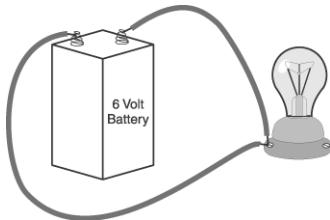
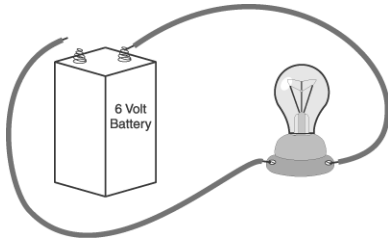
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6. A student wants to build a simple circuit that will light a bulb from a battery. Which diagram shows a completed circuit in which the bulb will light?



7. Sulfuric acid, used in car batteries, has a chemical formula of

- A. HCl.
 - B. H₂CO₃
 - C. H₂SO₄
 - D. CH₃COOH
-

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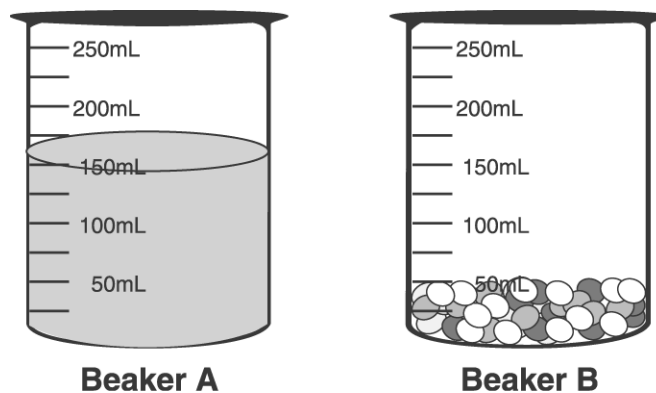
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8. The width of a book would likely be about

- A. 1 meter.
 - B. 1 kilometer.
 - C. 1 millimeter.
 - D. 1 centimeter.
-

Use the picture below to answer question 9.



9. Beaker A contains water. Beaker B contains copper pellets. When the copper pellets from Beaker B are poured into Beaker A, what will be the water level in Beaker A?

- A. below the 150 mL mark
 - B. at the 150 mL mark
 - C. above the 150 mL mark, but below the 200 mL mark
 - D. at the 200 mL mark
-

10. The mass of individual atoms **mainly** comes from

- A. electrons and ions.
 - B. electrons and neutrons.
 - C. neutrons and protons.
 - D. neutrons and ions.
-

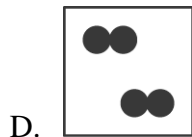
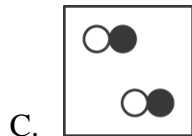
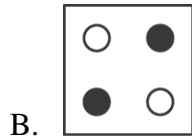
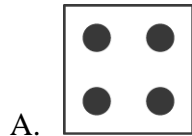
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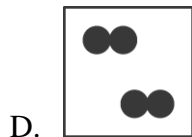
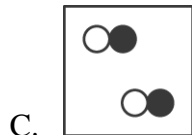
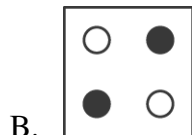
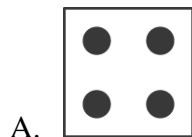
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11. If different kinds of atoms are represented by different colored dots, which picture below represents a mixture?



12. If different kinds of atoms are represented by different colored dots, which picture represents a sample of a compound?



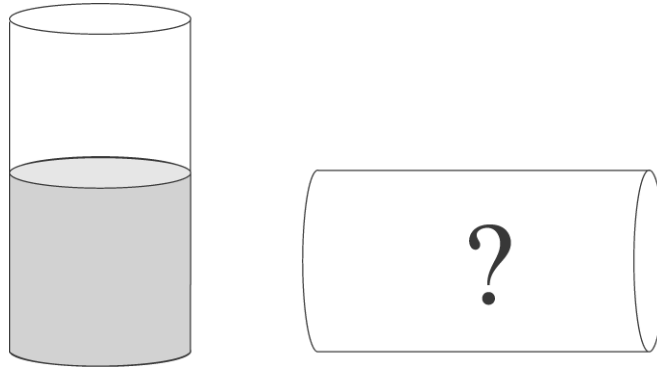
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Use the pictures below to answer question 13.



13. A sealed container standing on its end is half full of colored water. How full will the container be when it is resting on its side?

- A. It will be more than half full.
 - B. Its fullness depends on its shape.
 - C. It will be less than half full.
 - D. It will be half full.
-

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Use the pH scale and table below to answer question 14

Acid			Neutral			Base							
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Substance	pH
NH ₃	6
NH ₄ OH	11
NaOH	13
H ₃ PO ₄	5

14. Listed above are the pH values of some common substances. Basing your answer on the substances' pH value, which substance could be the **most** harmful to humans?
- A. NH₃
 - B. NH₄OH
 - C. NaOH
 - D. H₃PO₄
-

15. The tendency for a body at rest to remain at rest is known as
- A. inertia.
 - B. torque.
 - C. momentum.
 - D. mass.
-

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16. Exactly 10.0 meters of copper wire were taken from a warehouse at 29°C and placed in a refrigerator with a temperature of -7°C . Which unit would be **most** appropriate to measure the change in the length of the wire?

- A. cubic centimeter
 - B. square centimeter
 - C. feet
 - D. millimeter
-

17. Berenice climbs a flight of stairs in 10 seconds. On a different day, she climbs the same flight of stairs in 6 seconds. Which of the following is different in these two examples?

- A. the work she does
 - B. the amount of her mass
 - C. the change in her energy
 - D. her power output
-

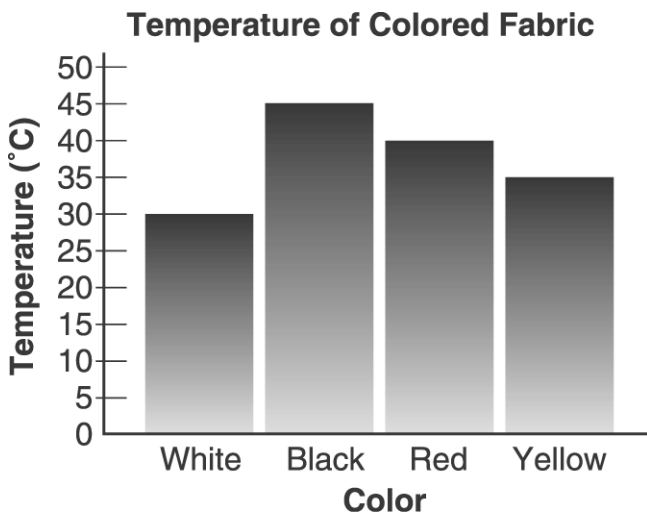
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Use the graph below to answer question 18.



18. Thermometers are placed under different colors of the same fabric and placed in direct sunlight for one hour. According to the graph, which color of fabric absorbed the most energy?

- A. white
 - B. black
 - C. red
 - D. yellow
-

19. Which of the following is an element?

- A. air
 - B. salt
 - C. water
 - D. oxygen
-

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20. Dana is investigating the effects of temperature and particle size on rate of solution. Which table would be **most** useful to record the data Dana collects?

A.

Particle Size	Time to Dissolve

B.

Particle Size	Temperature	Time to Dissolve

C.

Temperature	Particle Size	Time to Dissolve

D.

Time to Dissolve	Particle Size

Time to Dissolve	Temperature

21. Which type of mirror is the side view mirror on a car?

- A. concave
- B. convex
- C. smooth
- D. flat

22. Which of these is **not** a form of energy?

- A. electrical
 - B. light
 - C. heat
 - D. friction
-

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23. Infrared radiation technology is used in

- A. night vision devices.
 - B. air conditioners.
 - C. fluorescent lightbulbs.
 - D. metal detectors.
-

24. A person wants curtains that let in some light but prevent people outside from seeing into the house. The **best** choice of material would be one that is

- A. opaque.
 - B. reflecting.
 - C. transparent.
 - D. translucent.
-

25. When electrical energy is “used” by an electric light, what happens to the energy?

- A. It is given off as other forms of energy.
 - B. It changes to matter.
 - C. It becomes work.
 - D. It becomes a greater amount of energy.
-

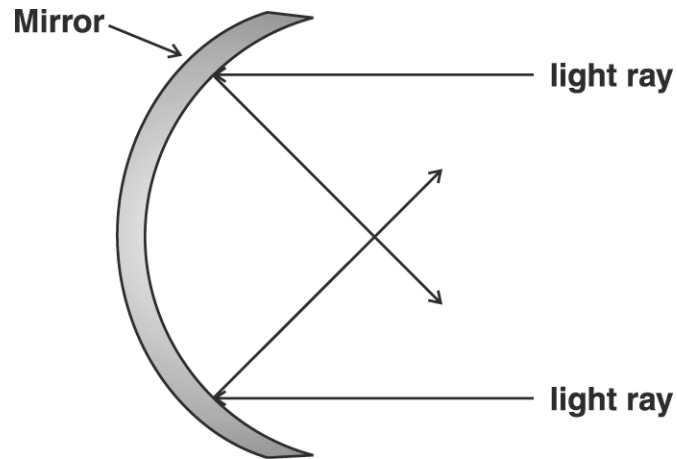
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Use the diagram below to answer question 26.



26. The type of mirror in the diagram would **best** be used to make

- A. a solar collector for cooking.
 - B. a wide-angle mirror on a car or truck.
 - C. a bathroom mirror.
 - D. a signal to a rescue plane.
-

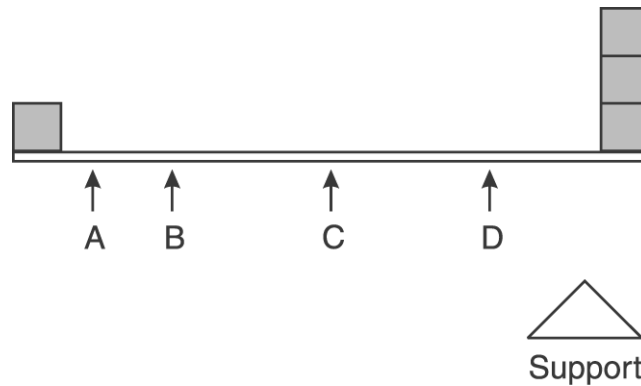
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Use the diagram below to answer question 27.



27. The board is holding some heavy blocks. All of the blocks are the same size and weight. If you wanted to make the board balance, at which point should you put the support?

- A. point A
 - B. point B
 - C. point C
 - D. point D
-

28. When would the kinetic energy in a ball become potential energy?

- A. when the ball is thrown
 - B. when the ball is dropped
 - C. when the ball rolls down a hill
 - D. when the ball is rolled up a hill and stops at the top
-

29. Which is a valuable and practical safety rule to follow when using electrical appliances?

- A. Avoid standing close to electrical appliances when they are in use.
 - B. Always wear rubber gloves when using electrical appliances.
 - C. Never use electrical appliances where water could get into the appliances.
 - D. Be sure to shut off all power before unplugging appliances.
-

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30. Students in four groups conducted an experiment to determine how the design of a paper bridge affects its load capacity (the average weight that a bridge can support without collapsing). By placing quarters on four differently constructed bridges, the groups tested the load capacity of each bridge. The results of the four groups are shown in the table below.

Load Capacity (number of quarters)				
Trial	Group 1 (unfolded)	Group 2 (4 sections)	Group 3 (8 sections)	Group 4 (16 sections)
1	4	8	20	40
2	6	7	23	38
3	5	7	22	37

If Group 3 had conducted a fourth trial using a bridge with 8 sections, how many quarters would the bridge most likely have supported?

- A. 14
 - B. 17
 - C. 21
 - D. 28
-