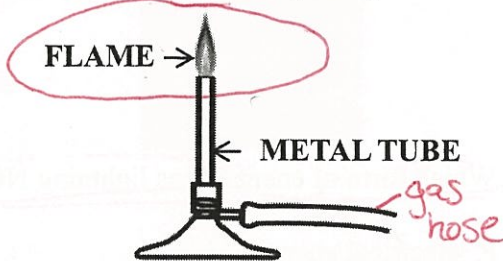


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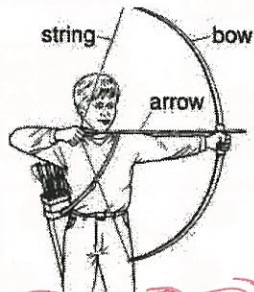
1. Robert Wilhelm Bunsen was a chemist and teacher who invented the laboratory Bunsen burner in 1855. The picture below shows the burner and some of its parts. (5.2.D)



A class uses the Bunsen burner while learning about solids and liquids. Which form of energy does the Bunsen burner produce that will be most helpful while learning about solids and liquids?

- A. electrical energy *NO plug or battery*
- B. mechanical energy *NO movement*
- C. thermal energy *Flame = fire*
- D. sound energy *NO vibrations*

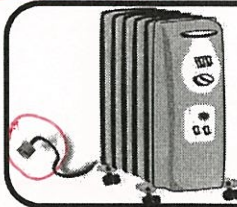
2. A student makes a bow and arrow using wood and string. When the student pulls the string back and releases the arrow, the arrow will travel several feet forward.




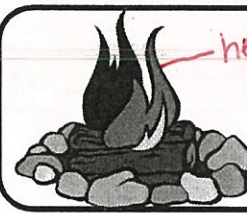
Which form of energy is used to pull the string back?


- F. mechanical energy *movement*
- G. heat energy *NO heat*
- H. electrical energy *NO plug or battery*
- J. light energy *NO light*

3. Which object does NOT change electrical energy into thermal energy?

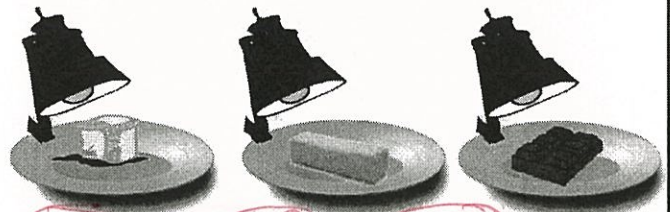
A.  *electrical → heat*  
SPACE HEATER

B.  *electrical → heat*  
COFFEE MACHINE

C.  *heat & light*  
CAMP FIRE

D.  *electric → heat*  
ELECTRIC STOVE

4. A class is learning about the melting points of ice, butter, and chocolate. The diagram below shows how the investigation was set up. (5.2.D)



What kinds of energy are being used to observe the melting point of the ice, butter, and chocolate?

- F. ~~mechanical~~, light, and thermal *NO movement*
- G. thermal and electrical *heat + electricity*
- H. light and ~~mechanical~~ *NO movement*
- J. thermal and ~~mechanical~~ *NO movement*



Name \_\_\_\_\_

Date \_\_\_\_\_

5. A girl uses a mallet to strike a ball in a game of croquet.



Which form of energy is used to strike the ball with the mallet?

- A. thermal energy *heat*
- B. light energy
- C. electrical energy *electricity (plug?)*
- D. mechanical energy *movement*

8. Lightning is a bright flash of light produced by a thunderstorm and is a powerful force of energy.



Which form of energy does lightning NOT have?

- F. electrical energy
- G. solar energy *NO SUN*
- H. thermal energy *heat*
- J. light energy

6. All of the following are examples of how light energy is used in everyday life EXCEPT—

Which is NOT example of light?

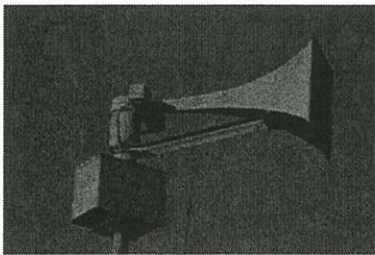
- F. A laser is used to read bar codes in a supermarket.
- G. A street light comes on when it gets dark.
- H. A plant is grown indoors using a special lamp.
- J. A microwave pops a bag of popcorn.

9. Thermal energy causes matter to change state.

Which diagram below shows a change in state by adding thermal energy? (5.2.D)

- A. *solid → solid same*
- B. *liquid → solid freezing*
- C. *solid → liquid melting*
- D. *gas → gas same*

7. Below is a photo of a siren that is used to warn people that tornadoes have been spotted near their area.



What must happen in order for people to hear the warning siren?

- A. Air molecules must vibrate.
- B. Light waves must absorb into the siren.
- C. The air must be heated.
- D. The air must be cooled.

10. Which answer choice best explains the term energy?

- F. sound from a radio *Type of energy*
- G. the ability to do work
- H. light from a fire *type of energy*
- J. heat from the sun *type of energy*