

Name _____

Date _____

1. Pictured below is a toaster oven baking pizza.

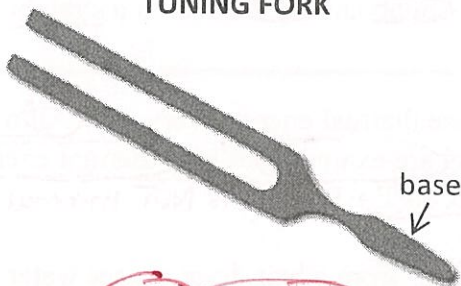


Which form of energy is being used to bake the pizza?

- A. mechanical energy *moving parts*
- B. solar energy *sun*
- C. thermal energy *heat*
- D. sound energy *vibrations*

2. In 1711 an inventor named John Shore created a metal two-pronged device called a tuning fork. When tapped on the knee and resting the base on a wooden table, a humming sound is created. Singers listen to the pitch of the sound produced and then adjust their voices accordingly. (5.3.D)

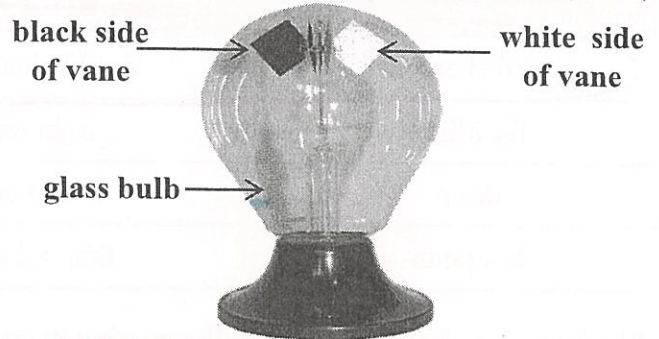
TUNING FORK



A humming sound is made when the tuning fork strikes an object because of --

- F. ~~electrical~~ charges *electricity*
- G. vibrations *sound*
- H. a ~~magnetic~~ field *magnets*
- D. ~~heat~~ waves *thermal*

3. A radiometer consists of four vanes that balance on a needle point. One side of each vane is white, and the other side of the vane is black. When placed in the sun, the vanes rotate in the direction faced by the white side. (5.2.D)



What happens when the radiometer is placed in the sun and begins to spin?

- sun → movement*
- A. heat and light energy changes into mechanical energy
 - B. light energy changes into electrical energy *light → electric*
 - C. heat energy changes into light energy *heat → light*
 - D. light energy changes into sound energy *light → vibrati*

4. Which forms of energy does a camp fire produce?

- make*
- F. ~~light~~ energy and ~~electrical~~ energy
 - G. ~~light~~ energy and ~~mechanical~~ energy
 - H. ~~thermal~~ energy and ~~mechanical~~ energy
 - J. ~~thermal~~ energy and ~~light~~ energy

5. Pictured below is a warning sign.



Which form of energy are people most likely being warned about?

- A. mechanical energy *movement*
- B. electrical energy *electricity*
- C. sound energy *vibrations*
- D. thermal energy *heat*

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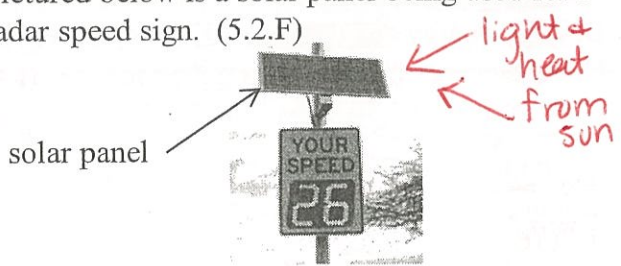
6. Students are asked to explore four different objects and identify the form of energy the object uses. Afterwards, the students are asked to name another object which uses the same form of energy as the object being explored. The results are shown in the table below. (5.2.G)

OBJECT	FORM OF ENERGY	OBJECT WHICH USES THE SAME FORM OF ENERGY
pencil sharpener	mechanical energy *	? *
flashlight	light energy	light bulb
drum	sound energy	radio
hot plate	thermal energy	stove

Which answer choice could fit in the missing blank on the chart?

- F. lamp *light or heat*
- G. fireworks *sound ; heat , or light*
- H. bicycle *mechanical*
- J. oven *heat*

7. Pictured below is a solar panel being used for a radar speed sign. (5.2.F)



How does this solar panel most likely work in the radar speed sign?

- A. It *changes* converts light energy into electrical energy. *light → electricity*
- B. It converts heat energy into light energy. *heat → light*
- C. It converts light energy into heat energy. *light → heat*
- D. It converts mechanical energy into electrical energy. *movement → electricity*

8. Which of the following is an example of mechanical energy?

- Movement*
- F. *cooking* food in a microwave *heat*
- G. the *spinning* of a wind turbine *movement*
- H. using a *battery* in a remote control *electricity*
- J. the *sound* of wind chimes on a windy day *sound/vibrations*

9. How are sound energy and light energy the same?

- A. Both *sound* and *light* can be *absorbed*.
- B. Both *sound* and *light* are found deep *within* the earth's surface. *= dark + quiet : cave?*
- C. Both *sound* and *light* are created through *vibrations*. *= sound not light*
- D. Both *sound* and *light* travel in a *straight line*. *= light not sound*

10. People use thermal energy every day. (All) of the following are examples of how thermal energy is used EXCEPT - Which is NOT thermal energy?

- F. *Warm* air from a hair dryer causes water to evaporate from wet hair. *heat*
- G. Popcorn seeds are placed in a *popcorn maker* *heats* until they pop out of their hard shells.
- H. Pancake batter is placed in a skillet on a *stove* to make pancakes. *heat*
- J. An electric guitar is connected to an amplifier to make the guitar *louder* *sound*