

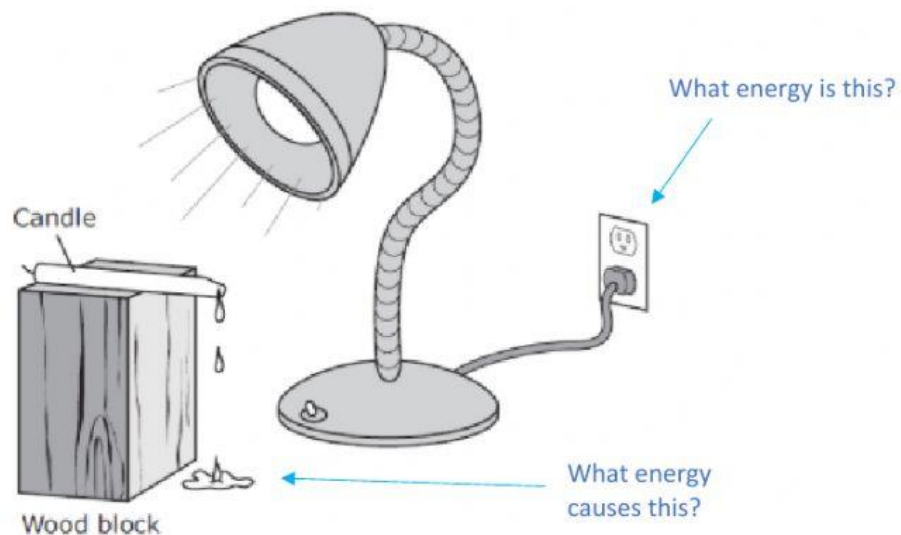
When a bat searches for prey at night, it makes sounds as it flies, and it uses the sounds' echoes to find its prey. When the bat flies and listens to echoes to locate prey, it is using —

- A** thermal energy and light energy
- B** sound energy and thermal energy
- C** mechanical energy and sound energy
- D** light energy and mechanical energy

Flying = moving
Listening = noise
What are these energies called?



A class is learning about states of matter. The teacher shows the students how to set up the investigation shown in the diagram.

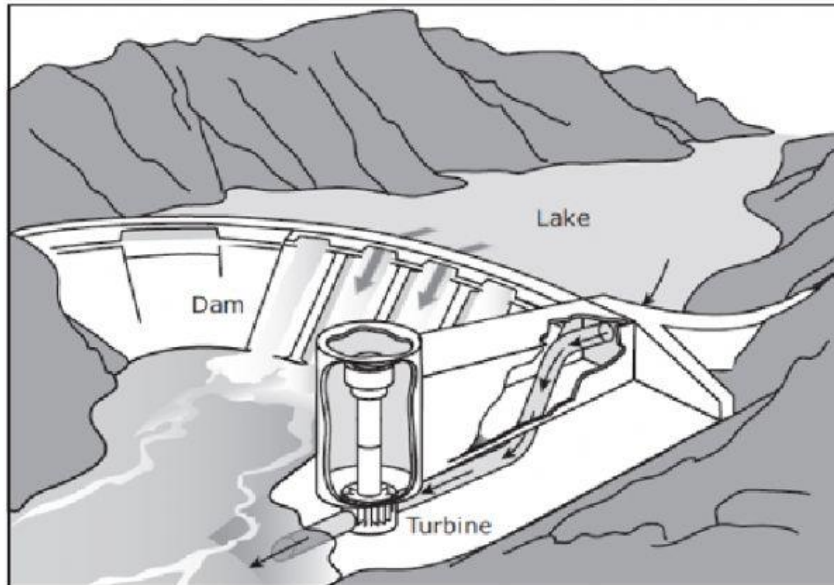


What kinds of energy are needed in this investigation to change the state of matter of the candle?

- A** Light, mechanical, and thermal
- B** Electrical and thermal
- C** Mechanical, light, and electrical
- D** Thermal and mechanical

____ energy melts the candle
____ energy turns on the lamp
Only two types of energy are NEEDED

Water flows through turbines in dams like the one shown below. The flowing water makes the turbines spin.



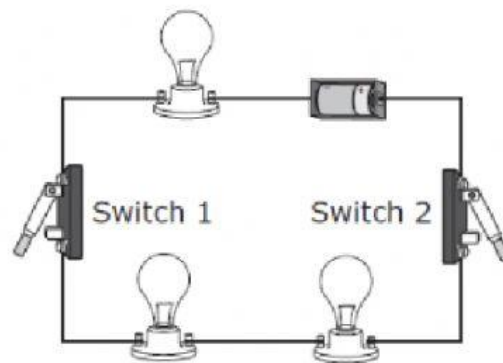
What type of energy is used to make the turbines spin in this type of dam?

- F** Light energy
- G** Thermal energy
- H** Sound energy
- J** Mechanical energy

The water is flowing through the dams
So, the water is MOVING

A student wants to make a change to the circuit shown below so that when Switch 1 is open and Switch 2 is closed, only one light will be on in the circuit.

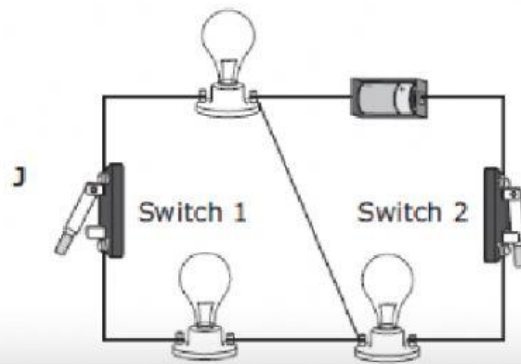
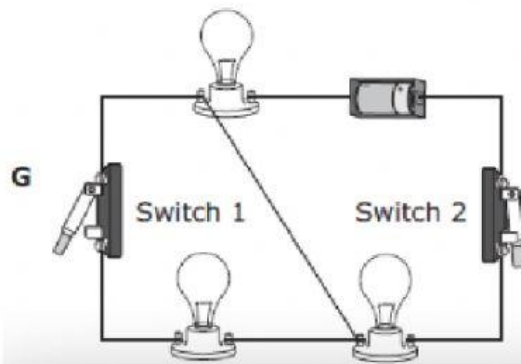
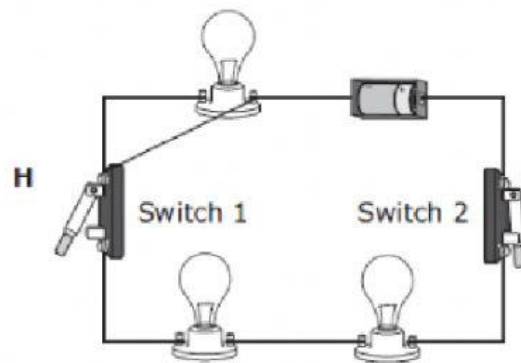
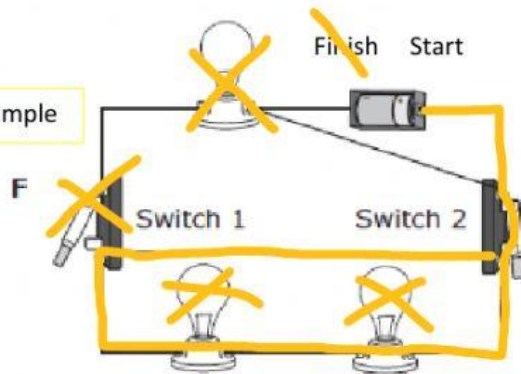
In a circuit you must draw a circle anything NOT INSIDE the circle will not work



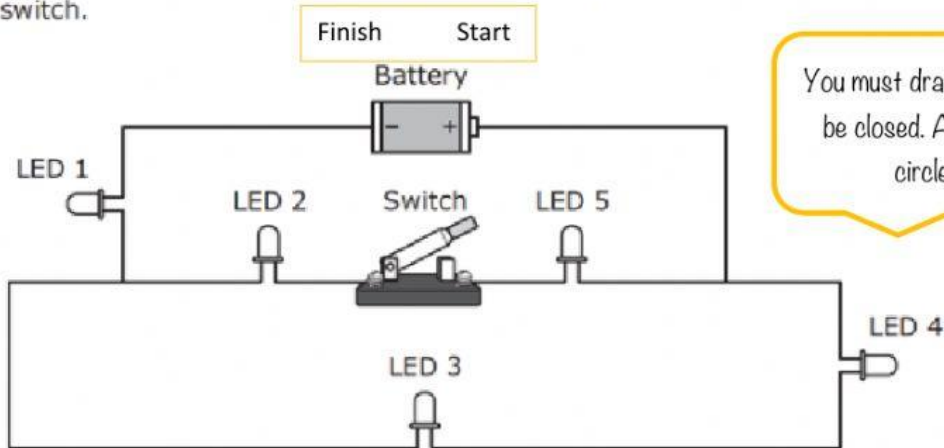
Switch 1 must be open
Switch 2 must be closed
ONLY 1 light can be on

Which diagram shows how the student should change the circuit?

example



This circuit has five light-emitting diode, or LED, lights. It also has one battery and one switch.



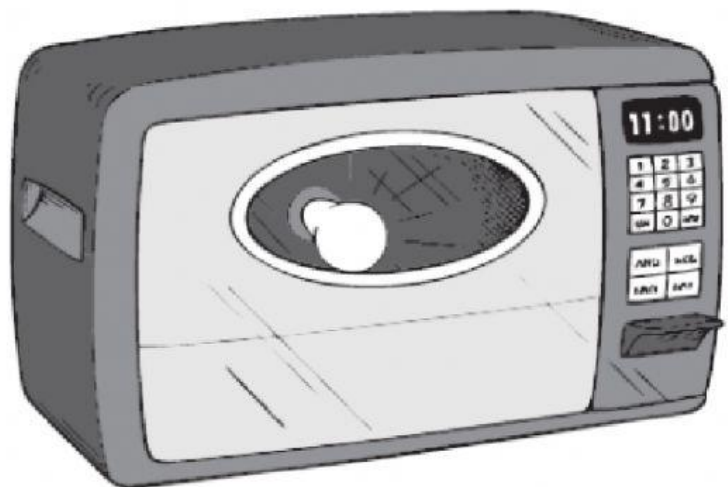
You must draw a circle and it must be closed. Anything **INSIDE** the circle will turn on!

Which LEDs produce light when the switch is in the position shown?

- A** LEDs 1, 3, and 4 only
- B** LEDs 1, 2, 3, and 4
- C** LEDs 3 and 4 only
- D** LEDs 1, 3, 4, and 5

The toy oven shown uses a lightbulb to bake small cakes.

The toy oven is using a lightbulb.
what energy turns it on?
The OVEN uses what energy to
cook things?



What types of energy does the toy oven use to bake the cakes?

- A** Electrical and thermal
- B** Mechanical and electrical
- C** Thermal and mechanical
- D** Light and sound