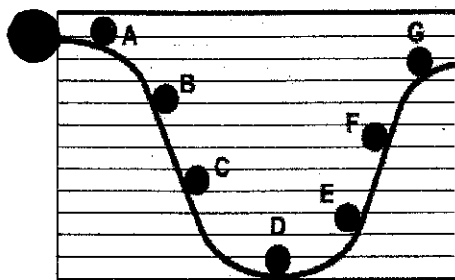


Study Guide for Energy, Motion, and Gravity
Use the diagrams below to answer the questions.

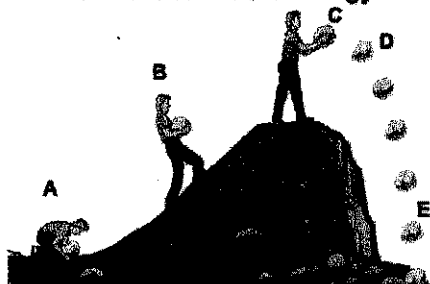
Name Key



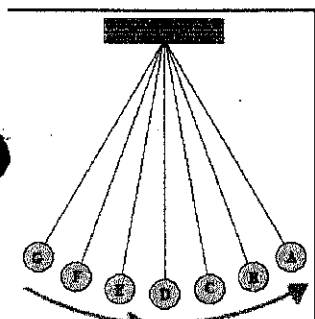
- Which letter shows the ball with the most potential energy? A
- Which letter shows the ball with the least kinetic energy? A
- Which letter shows the ball with a little less potential energy than F? C
- Which letter shows the ball with a little more potential energy than D? E
- Which letter shows the ball with a little less kinetic energy than G? A
- Which letter shows the ball with a little more kinetic energy than B? E

Use the diagrams below to answer the questions:

Potential and Kinetic Energy



- Which letter shows the most potential energy? C
- Which letter shows the most kinetic energy? E
- Which letter shows a little more kinetic energy than C? D



- Which 2 letters have a little more potential energy than B? G + A
- Which 2 letters have a little more kinetic energy than F? E + C
- Which letter has the most kinetic energy? D

Circle the correct answer: (Use your notes as a resource)

- Energy is the ability to do work / not do work.
- Energy has the ability to make things move / eat.
- Heat / Cold is always created when energy changes forms.
- A primary / secondary source of energy is found in nature.
- A primary / secondary source of energy is made from a primary source with the help of man-made tools.

List the correct type of energy: Use your energy booklet in Canvas as a resource.

- Kinetic energy (The energy of moving things)
- Thermal energy (The vibration of particles. The more they vibrate, the more heat energy they have.)
- Chemical energy (Holds the atoms of molecules together. It can be released by chemical reactions like burning)
- Nuclear energy (Found in nucleus of atoms. It powers the sun)
- Sound energy (Vibration of air molecules that move the tiny bones of ear)
- Radiant energy (Carried by light)
- Electromagnetic energy (ex. Microwaves, gamma rays, visible light, x-rays)
- Electrical energy (movement of electrons through matter. An example is electricity.)

True or False

- T A dead tree still has potential energy.
- F A hamburger does not have potential energy.
- F Lightning is a secondary source of energy.
- F Energy has mass and takes up space.
- T Energy can be changed from one form to another.
- F New energy can be created and old energy can be destroyed.

32. F A dead body has no potential energy.
 33. F Only moving things have energy.
 34. T Nuclear energy powers the sun.
 35. F Everything has the same amount of energy.
 36. T A car racing up a hill has kinetic energy.
 37. _____ A lit match has potential energy.

Circuits (True or False).

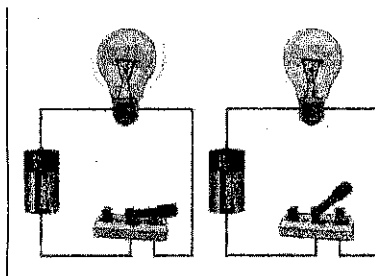
38. T Batteries have potential energy stored in them.
 39. T Batteries have chemical energy stored in them.
 40. T A battery can convert stored chemical energy into electrical energy.
 41. F Electricity travels in a turbine.
 42. F Conductors do not allow electrons to flow.
 43. T Insulators do not allow electrons to flow.

Answer the following from your notes on circuits:

44. List four parts of a circuit.

Wire, load, switch, energy source.

Label the diagrams below as closed or open circuits.



45. closed open

46. Electricity always flows in a circuit from the _____ pole of a battery to its _____ pole.

47. The flow of electricity creates an electric current.

Name the Electrical Component that matches each symbol below.

Symbol	Electrical Component
	2 batteries
	Motor
	Open Circuit
	Closed Circuit
	Light
	Wire.