

Year 8 Science: Energy Test

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Name: _____

Multiple Choice Questions

Q1. Which of the following list contains only types of energy in action?

- A) Light, sound, nuclear and heat energy
- B) Kinetic, light, chemical and electrical energy
- C) Kinetic, light, sound, heat and electrical energy.
- D) Sound, heat, electrical and elastic potential energy

Q2. Look at the image below. The people in the carts on top of the hill are said to have:

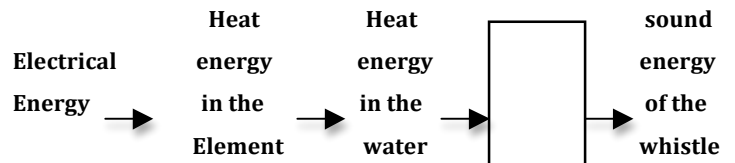


- A) little kinetic energy and a lot of potential energy
- B) a lot of kinetic energy and little potential energy
- C) little kinetic energy and little potential energy.
- D) A lot of kinetic energy and a lot of potential energy

Q3. Sound energy is a form of what other kind of energy?

- A) Kinetic energy
- B) Chemical energy
- C) Heat energy
- D) Light energy

Q4. The following energy chain describes energy transformation and transfer involved in a whistle blowing on a kettle.



The missing link is:

- A) Kinetic energy of steam
- B) Heat energy of water
- C) Kinetic energy of water
- D) Heat energy of the kettle

Q5. Which of the following statements is false?

- A) Energy makes things happens
- B) All objects have energy
- C) All energy is stored energy
- D) Energy never disappears

Q6. Which of the following lists contains only types of stored energy?

- A) Chemical, nuclear, elastic potential and heat energy
- B) Chemical, nuclear, elastic potential and gravitational potential energy.
- C) Kinetic, electrical, chemical and nuclear energy
- D) Elastic potential, sound, light and chemical energy.

Q7. If you investigated the gravitational potential energy of a marble being dropped into a tube, what factor is likely to be the independent variable?

- A) The marbles mass
- B) The transfer of energy from one form to another.
- C) The energy wasted through sound energy
- D) How fast the marble falls after it is dropped.

Q8. A soccer player kicking a ball is an example of energy transfer because:

- A) The ball is transferred to a different place using energy
- B) One type of energy is transferred to another type of energy.
- C) The ball's stored energy has been transferred into action.
- D) The kinetic energy in the player's foot has been transferred to the ball.

Q9. Which of the following is not considered to be potential energy?

- A) Gravitational potential energy
- B) Chemical energy
- C) Heat energy
- D) Elastic potential energy

Q10. The law of conservation of energy states that:

- A) It is important to conserve energy
- B) Energy cannot be made, destroyed or lost
- C) Energy be made, destroyed or lost.
- D) No energy is lost in transformations and transfers

True or False Questions

Q11. A spring that is stretched has less potential energy than when it is not stretched.	T / F
Q12. Energy transformation involve the same type of energy transferred to another object	T / F
Q13. Some energy is wasted during a conversion and is not useful	T / F

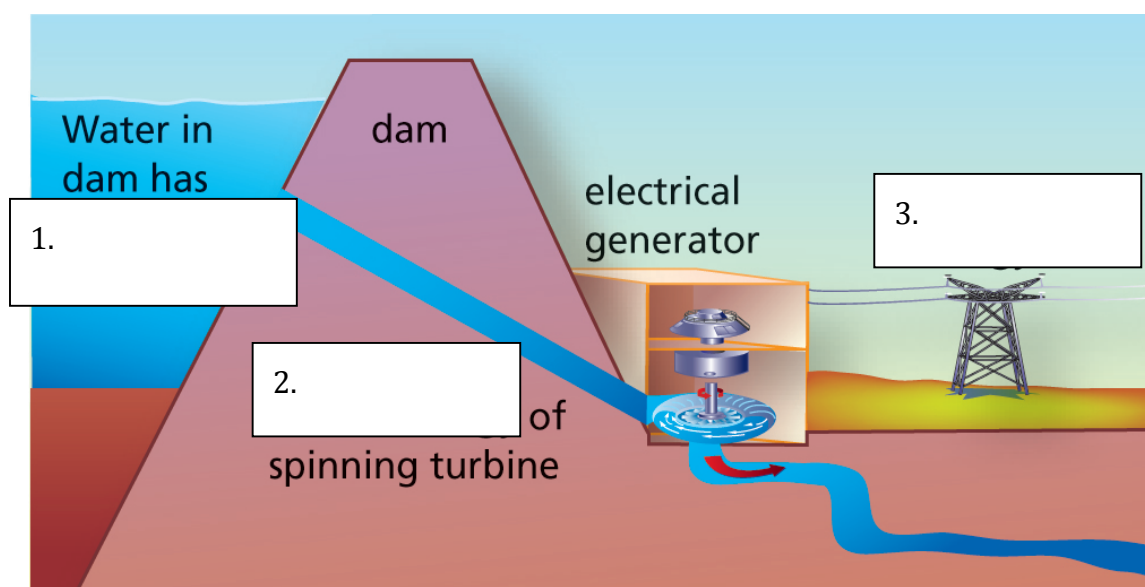
/13 marks

Short Answer Questions

Q1. Explain in one (1) to two (2) sentences what energy is? (1 mark)

Q2. (a) Look at the image below. Fill in the three blank boxes choosing from the word bank below to identify the type of energy stored and used.

Gravitational Potential Energy	Kinetic Energy	Chemical Energy
Elastic Potential Energy	Electrical Energy	Light Energy



(b) Describe the energy transformations occurring in the above diagram.

(5 marks)

Q3. When we drive a car we are transforming chemical energy (in the fuel) into kinetic energy. However this is not the only energy transfer that occurs. Name two forms of wasted energy that are produced. (1mark)

1. _____

2. _____

