Year 8 Science Name:_____ Form: _____

Energy and Heat Revision

1. What is Energy?

   _____

2. What is another name for stored energy? _____.

3. There are 3 main types of stored energy:
   (1) _____ eg. a stretched rubber band, windup toy.

   (2) _____ eg. candle (wax) is burning to give out light and heat

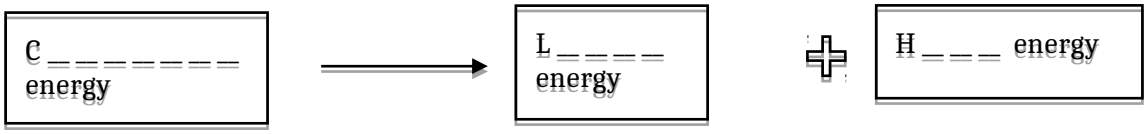
   (3) Gravitational Potential energy eg. _____

4. How do we measure energy? _____

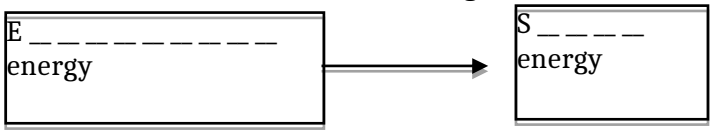
5. What is the meaning of "Changing Energy"?

   _____

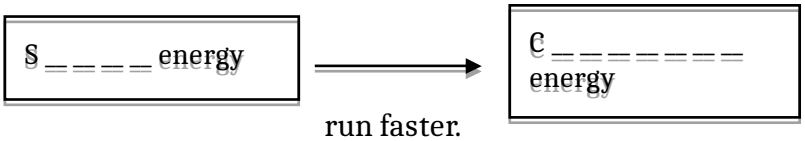
6. State the changing energy:
   a) flashlight's batteries



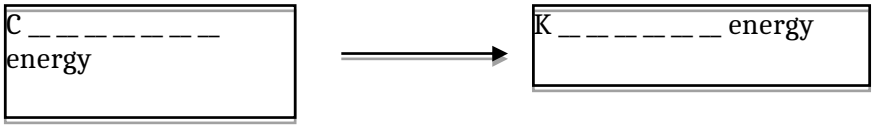
   b) talking on the phone



   c) green plants undergo photosynthesis



   d) Eating high energy food and drink, so that you can run faster.



e) Write down all the energy changes in playing a DVD disc connected to a TV.

7. Which of the 3 heat transfer methods occur in liquids and gases? _____

8. How does conduction take place? (using the key words: particles, colder end, vibrating faster, solid only, hotter end)

_____

_____

9. Explain how water is boiled in an electrical kettle.

_____

_____

_____

10. Pan handles are usually made of plastic or wood. Explain.

_____

11. The sun provides us HEAT and LIGHT energy. Name the method of heat transfer from the Sun to the Earth.

_____

12. What makes the above heat transfer method different from convection and conduction?

_____

13. Why do people wear light or white clothes in the summer?

_____

14. These terms are related to Radiation of Heat: good reflector of heat, good radiator (emitter) of heat, poor radiator, good absorber of heat, poor absorber.
Find the correct term for the following:
a) Darker surface like the bitumen _____
b) Silvery tea pot containing hot water _____ (so that hot water can be kept warmer for a longer time).
c) Hot black object is a _____.
d) Black and dark coloured cars are _____.
e) The silvery shaded is used in the hot day because it is a _____.

15. Why do animals with thick fur can live well in colder region?

_____

_____

16. What is the use of thermometer? How does a thermometer work?

_____

_____