



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



**Sub: Physical Science**

**Class: 8**

**Date: 23.06.20**

**Duration: 40 min**

**Worksheet Solutions 45**

**Full Marks: 15**

## **ENERGY & POWER**

**Choose the Correct options:**

- The Law of Conservation of Energy states:
  - Energy can be created or destroyed but not transformed
  - Energy cannot be created or destroyed, it can only transformed**
  - Energy can't be created, destroyed or transformed
- According to the Law of Conservation of energy, the amount of energy before and after a reaction must be the same. Which statement below is true?
  - The total amount of energy is conserved**
  - The total amount of energy is less after a reaction
  - The total amount of energy is more after a reaction
- Which energy transformation below matches?  
A book falling?
  - chemical to sound and heat
  - kinetic to sound and heat**
  - electrical to sound and heat
- Which energy transformation below matches?  
Water moving over a dam to move a generator?
  - kinetic to chemical
  - kinetic to electrical**
  - solar to electrical
- Which energy transformation below matches?  
Green plants?
  - chemical to mechanical
  - chemical to heat
  - solar to chemical**
- Which energy transformation below matches?  
Animals eating food?
  - electrical to potential
  - chemical to kinetic**
  - potential to chemical
- Which energy transformation below matches?  
Burning coal or carbon-based fuel at a power plant?
  - chemical to heat to electrical**
  - mechanical to chemical to sound
  - electrical to chemical to heat
- Which energy transformation below matches?  
An electrical circuit?
  - chemical to heat, sound, light, mechanical
  - solar to heat, sound, light, mechanical
  - electrical to heat, sound, light, mechanical**
- Which is an example of a single energy transformation?
  - A toaster converts electrical to thermal energy**

- (b) A match converts mechanical to thermal to electromagnetic  
(c) A biker converts chemical to mechanical to thermal
10. What is an example of multiple energy transformations?  
(a) Your body transforms chemical to thermal  
**(b) Your body transforms chemical to mechanical**  
(c) a flashlight converts chemical energy in batteries to electrical to electromagnetic energy in light
11. As an object falls its \_\_\_\_\_ energy decreases and its kinetic energy increases  
**(a) potential**  
(b) chemical  
(c) thermal
12. What kind of energy in the sun transforms into electromagnetic energy?  
**(a) nuclear**  
(b) thermal  
(c) electric
13. According to the Law of Conservation of Energy, when one form of energy is transformed into another, \_\_\_\_\_ energy is lost in the process  
**(a) no**  
(b) some  
(c) all
14. \_\_\_\_\_ CANNOT be created or destroyed  
**(a) energy**  
(b) transformation  
(c) motion
15. Whenever a moving object experiences friction, some of its kinetic energy is transformed into \_\_\_\_\_ energy.  
**(a) thermal**  
(b) electrical  
(c) mechanical