

Grade- 3 Science

Chapter 13



Lesson 1: What is energy?

1. What is Energy? What are two forms of energy that earth gets from the sun?

Ans: Energy is the ability to do work or to cause change. Earth gets heat and light energy from the sun.

2. Name six forms of energy.

Ans:

- I. Light energy
- II. Sound energy
- III. Heat energy
- IV. Chemical energy
- V. Electrical energy
- VI. Kinetic energy

3. Define potential energy and kinetic energy.

Ans: Potential energy- It is the stored energy of an object because of its position.

Kinetic energy- It is the energy of an object because of its motion.

4. Give three examples of potential and kinetic energy.

Ans: Potential energy- food, batteries, standing skier.

Kinetic energy- walking, moving car, rolling ball.

Grade- 3 Science

Lesson 2: How does energy change form?

1. What form of energy do living things change into mechanical energy and thermal energy?

Ans: Chemical energy.

2. Name two types of energy that travel in a wave.

Ans: Two types of energy that travel in wave are- light energy & the energy carried by water waves.

3. What happens to energy as it travels away from the source?

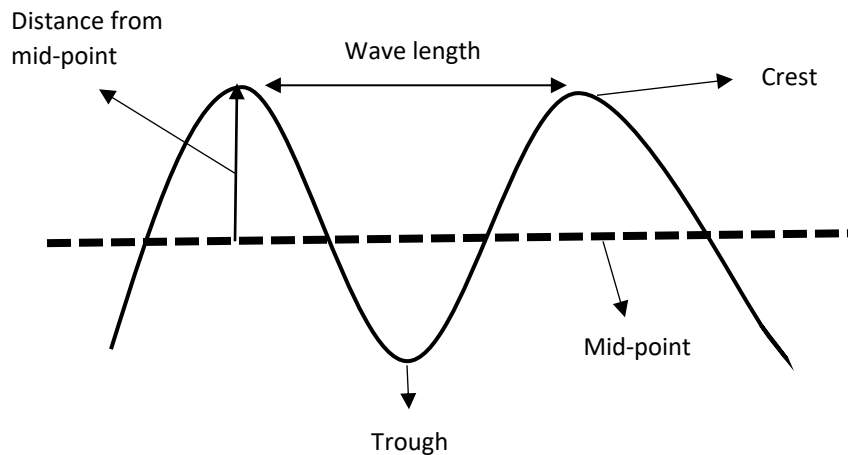
Ans: It becomes weaker. Some energy may transfer to another form of energy, the rest of the energy is released or given off as heat.

4. Which waves have more energy?

Ans: Shorter waves have more energy.

5. Draw and label a wave.

Ans:



Grade- 3 Science

Lesson 3: What is heat energy?

1. What is thermal energy?

Ans: The energy of moving particles in matter is called thermal energy.

2. What are four different kinds of heat sources?

Ans: Four different heat sources are the sun, electrical energy, chemical changes and friction.

3. At what temperature does water begin to freeze and boil?

Ans: Water begins to freeze at 0°C and boils at 100°C.

4. What causes matter to be in a solid, liquid or gas state?

Ans: The amount of heat matter causes it to be in a solid, liquid or gas state.

Lesson 4: What is light energy?

1. Name three sources of light energy?

Ans: The sun, chemical changes and electricity are sources of light energy.

2. How does a shadow form?

Ans: Shadows are formed when an object blocks the path of light.

3. How does light travel?

Ans: Light travels in straight lines in all directions.

4. How and why anglerfish give off light?

Ans: Chemical changes in the body of fish produce light to attract the food.

Grade- 3 Science

5. Why do dark object get warmer in sunlight?

Ans: Dark objects get warmer in sunlight because it absorbs the light and light energy turns into heat.

Lesson 5: What is Electrical energy?

1. Define the following.

Ans:

- I. Electric charge:** Tiny amount of energy in the particles of matter is called as electric charge.
- II. Electric current:** Electric current is the movement of electrical energy or electric charge from one place to another.
- III. Electric circuit:** An electric circuit is the path through which a controlled electric current flows.

2. Name two types of electric charge.

Ans: Positive charge and negative charge.

3. What causes lightning?

Ans: Lightning is caused by negative electric charges travelling within clouds or between clouds and the ground.