**1. Match each type of energy with its definition.**

Mechanical energy *●*

Light energy *●*

Nuclear energy *●*

Heat energy *●*

Chemical energy *●*

Electrical energy *●*

*●* It is the energy that is emitted by lightning and bodies like the Sun.

*●* It is the energy that is emitted by bodies like the Sun, fire or the lava of a volcano.

*●* It is the energy that is stored in substances like the food we eat and fuels like oil and coal.

*●* It is the energy that is associated with the presence and motion of electrical charges.

*●* It is the energy that is associated with the motion and position of an object.

*●* It is the energy in the nucleus of an atom.

**2. Write True (T) or False (F).**

*●* Energy has mass.

*●* Energy occupies no space.

*●* Electrical energy is transformed into heat energy in a fan.

*●* Energy can transfer from one body to another.

*●* Electrical energy can be transported through cables.

**3. Explain the difference between renewable and non-renewable energy.**

**4. Classify the energy sources in the table below.**

biomass, petrol, geothermal energy, uranium, hydroelectric energy, coal, tidal energy, gas

|  |  |
| --- | --- |
| **Renewable** | **Non-Renewable** |
|  |  |

**5. Complete the text about the negative consequences of energy production. Use the words in the box.**

warming, spills, erosion, quarries, carbon dioxide, waste, mines

The burning of fossil fuels releases into the atmosphere and causes global . Oil from tankers and industrial contaminate the sea and kill aquatic organisms. Taking rocks from and minerals from contaminates the land and causes soil

.

**6. Name four things we can do to create a sustainable future for our planet.**

**7. Write the names of the effects of changes in temperature on matter.**

*●* A change in volume that takes place when air cools down.

*●* A change in state that takes place when air cools down.

*●* A change in volume that takes place when air is heated.

*●* A change in state that takes place when a solid is heated.

**8. Write True (T) or False (F).**

*●* Heat always travels from the warmer body to the colder one.

*●* Thermal insulators allow heat to travel quickly.

*●* Thermal conductors do not let heat pass through them easily.

**9. Match this words with the definition.**

Translucent material *●*

Reflection *●*

Transparent material *●*

Refraction *●*

Opaque material *●*

*●* The change of direction that occurs when light hits an object.

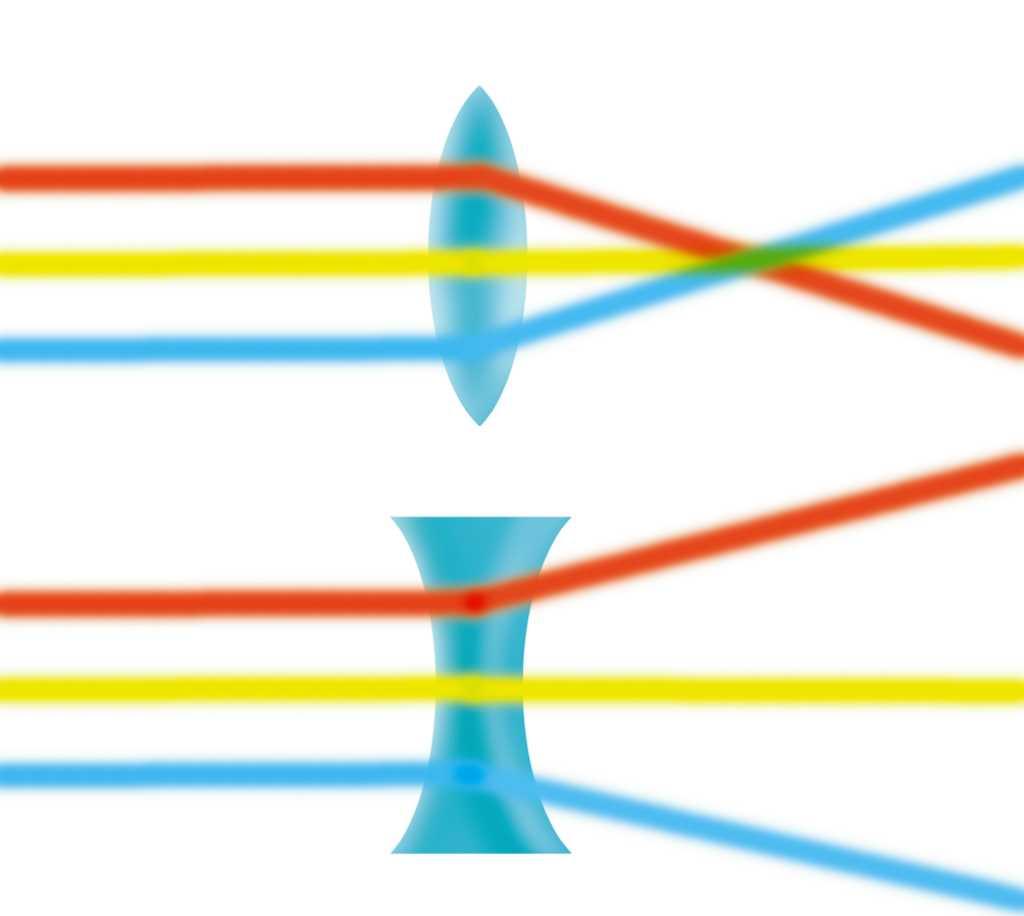
*●* The change of direction that occurs when light passes from one medium to another.

*●* Does not allow light to pass through it.

*●* Allows light to pass through it but disperses the light.

*●* Allows light to pass through it without dispersing.

**10. Name the type of lens in each picture.**



lens

lens

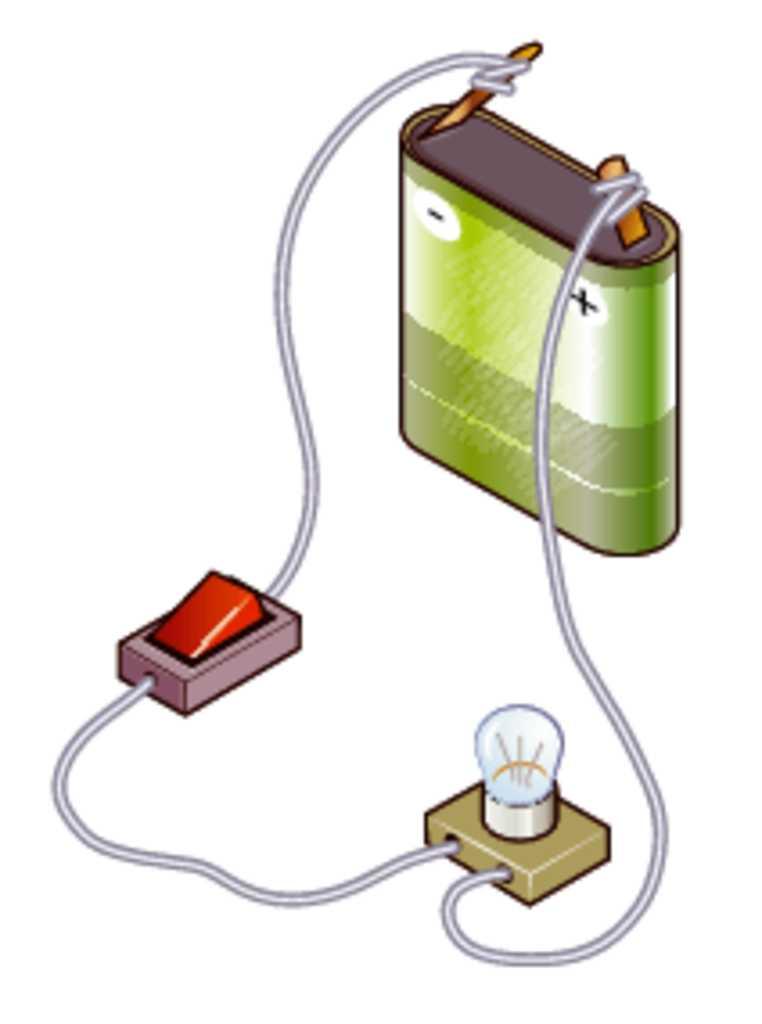
**11. Read the sentences about sound. Write True (T) or False (F).**

* A violin has a high pitch and a double bass has a low pitch.
* Sound travels more slowly through the ground than the air.
* Sound is produced by the vibration of bodies.
* Sound cannot travel through water.

**12. When you pull off a polyester jumper, your hair sticks up. Explain what makes this happen.**

**13. Explain what happens to an electrical device if you put an insulator in a circuit.**

**14. Label the picture.**



**15. Match each word with its definition.**

Heat *●*

Light *●*

Sound *●*

*●* It is a form of energy that travels in straight line at great speed.

*●* It is the transfer of energy between two bodies that are at different temperatures.

*●*It is a form of energy that is produced by the vibration of bodies