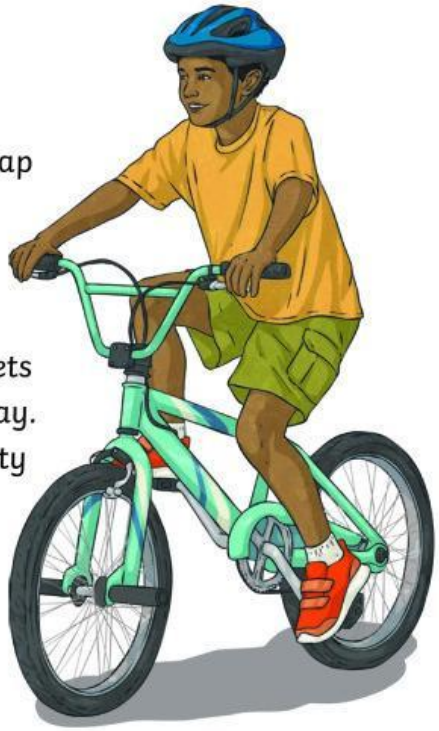
Types of Energy

Section A: Movement Energy

Movement energy is the energy that makes things move. It is also called kinetic energy. You see movement energy around you every day – when a car drives down the road, when you kick a soccer ball, or even when a leaf blows in the wind. When something is moving, it has movement energy.

For example:

- A bicycle has movement energy when you pedal it.
- A bird flying through the sky uses movement energy to flap its wings.
- A river flowing has movement energy as the water moves downstream.



Movement energy comes from different sources. Your body gets its energy from food, which allows you to run, jump, and play. Machines, like cars and trains, use fuels like petrol or electricity to create movement energy. Even nature uses movement energy – wind helps spin windmills, and water flows to power hydroelectric dams!

Movement energy is important because it helps us do many things, from playing sports to driving to work. Without movement energy, the world would be still and lifeless. By understanding how movement energy works, we can find ways to use it wisely to make life easier and better.

Questions

1. What is movement energy?

2. Give two examples of how we use movement energy in our daily lives.

3. What happens when you kick a soccer ball? What type of energy is involved?

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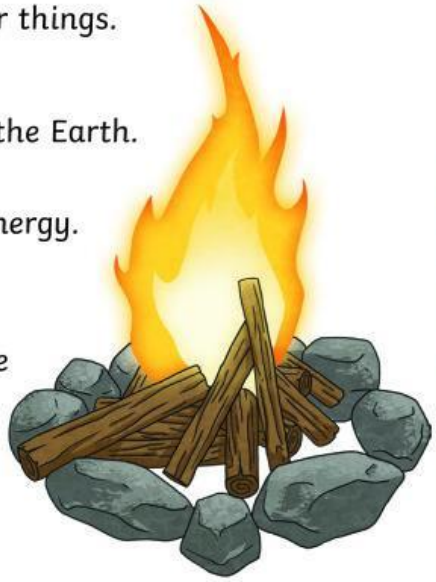
LIVEWORKSHEETS

Section B: Heat Energy

Heat energy is the energy that makes things warm. You feel heat energy every day – it comes from the sun, a warm fire, or even from your body. Heat energy is very important because it helps us stay warm, cook food, and do many other things.

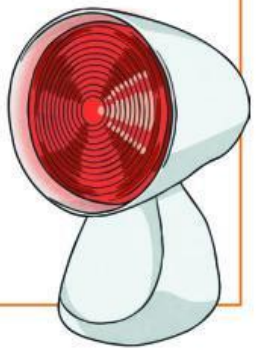


There are many sources of heat energy:

- **The Sun:** The sun is the biggest source of heat energy for the Earth. It warms the land, water, and air, making life possible.
- **Fire:** When we burn wood, coal, or gas, it gives off heat energy. This is how we cook food, heat our homes, or keep warm when camping.
- **Electricity:** Many heaters, ovens, and other appliances use electricity to produce heat energy.
- **Your Body:** Your body also makes heat energy to keep you warm, especially when it's cold outside!

Heat energy moves in different ways:

1. **Conduction:** Heat travels through solid objects. For example, when you touch a warm cup of tea, the heat moves from the cup to your hand.
2. **Convection:** Heat moves through liquids and gases. For example, when you boil water, the heat spreads through the water, making it hot.
3. **Radiation:** Heat travels through empty space as rays or waves. For example, the heat from the sun travels through space to warm the Earth.



Heat energy is essential for life. It helps plants grow, keeps animals warm, and powers many machines. By understanding how heat energy works, we can use it wisely and safely.

Questions

1. What is heat energy?

_____

2. Name three sources of heat energy that we use every day.

_____

_____

3. How does heat energy help us stay comfortable during winter?

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_____

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LIVEWORKSHEETS

Section C: Light Energy

Light energy helps us see the world around us. Without light, everything would be dark, and it would be hard to do things like reading, playing, or even finding our way. Light energy travels in waves and can come from many different sources.

Sources of Light Energy

- **The Sun:** The sun is the most important source of light energy. It lights up the Earth during the day and helps plants grow.
- **Electric Lights:** Lightbulbs and lamps give us light at night so we can see indoors or outside.
- **Fire:** Flames from a candle, campfire, or fireplace also produce light. People used fire for light before electric lights were invented.
- **Animals:** Some animals, like fireflies or certain deep-sea creatures, can make their own light. This is called bioluminescence.

How Light Travels

Light energy moves in straight lines called rays. These rays can bounce off shiny surfaces, like mirrors, or pass through clear materials, like glass. Light also spreads out and travels far, which is why we can see stars in the sky that are very far away.

Uses of Light Energy

- **Seeing:** Light helps us see colours, shapes, and everything around us.
- **Helping Plants Grow:** Plants use sunlight to make food in a process called photosynthesis.
- **Making Electricity:** Solar panels collect sunlight and turn it into electricity to power homes and devices.

Light energy is important for life on Earth. It helps plants, animals, and people. By using light wisely and safely, we can enjoy its benefits every day!

Questions

1. What is light energy?

_____

2. Name two sources of natural light and two sources of man-made light.

_____

_____

3. Why is light energy important for us at night?

_____

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LIVEWORKSHEETS

Section D: Sound Energy

Sound energy is the energy we hear. It happens when something vibrates, causing the air (or another substance) around it to move. These movements, called sound waves, travel to our ears, and we hear them as sounds like talking music or birds chirping!

How Sound Energy is Made: Sound energy starts with vibrations. For example:

- When you pluck a guitar string, it vibrates and makes sound waves.
- When you clap your hands, the air around your hands vibrates and creates sound.
- When you speak, your vocal cords vibrate, and the sound travels through the air to others.

How Sound Travels: Sound moves through substances like air, water, or solids. It travels faster through solids because the particles are packed tightly together, slower through liquids, and slowest through gases like air.

Everyday Examples of Sound Energy

- **Nature:** Birds singing, thunder rumbling, or crashing waves all produce sound energy.
- **Machines:** Cars honking, engines running and alarms buzzing are examples of sound energy from machines.
- **Instruments:** Drums, flutes, and pianos make sound energy when they vibrate.

The Uses of Sound Energy

Sound energy is important in many ways:

- **Communication:** We use sound to talk and listen to each other.
- **Music:** Musical instruments create sound energy that we enjoy.
- **Safety:** Sirens or alarms use sound to warn us of danger.

Sound energy makes the world more interesting and lively. By learning how it works, we can better understand and enjoy the sounds around us!

Questions

1. What is sound energy?

2. How is sound created?

3. Name two examples of sound energy you hear in nature and two examples from machines.

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LIVEWORKSHEETS

Answers

1. Movement Energy

1. Movement energy is the energy that makes things move, like when a car drives or a ball rolls.
2. Riding a bicycle and driving a car.
3. The ball moves because of movement energy.

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2. Heat Energy

1. Heat energy is the energy that makes things warm, like the heat from the sun or a fire.
2. The sun, a heater, and a stove.
3. Heat energy keeps us warm by providing warmth from heaters, fires, or blankets.

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3. Light Energy

1. Light energy helps us see and comes from sources like the sun, lightbulbs, or candles.
2. Natural light: the sun and stars.

   Man-made light: lightbulbs and candles.
3. Light energy helps us see in the dark, making it easier to move around and do activities.

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4. Sound Energy

1. Sound energy is the energy we hear, created by vibrations.
2. Sound is created when something vibrates and those vibrations travel through the air to our ears.
3. Nature: birds chirping and wind blowing.

   Machines: a car engine and a washing machine.