
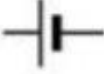
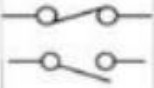









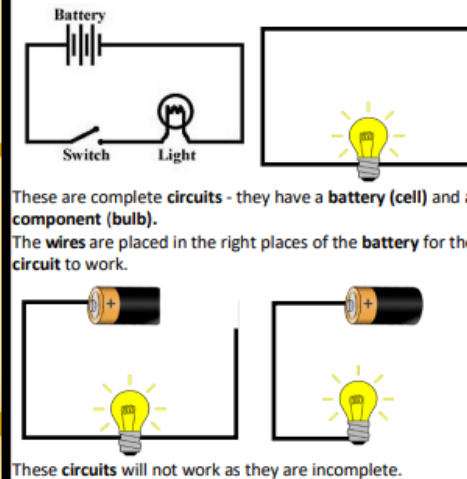
Some components of an electric circuit


	Wire	cell	switch	buzzer	lamp
Circuit Diagram					
Picture					

What I will learn in this unit.

- To be able to identify common appliances that run on electricity
- To be able to construct a simple series electrical circuit, identifying and naming its basic parts
- To be able to identify whether or not a lamp will light in a simple series circuit, based on whether the lamp is part of a complete loop with a battery
- To be able to recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- To be able to recognise some common conductors and insulators, and associated metals with being good conductors

Diagrams

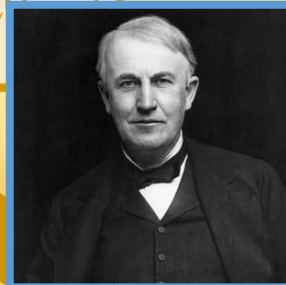
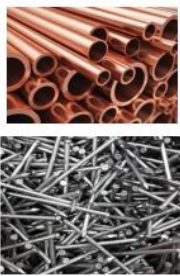


- Some **appliances** use **batteries** and some use **mains electricity**.
 - **Batteries** come in different sizes depending on how much and for how long the **appliance** is used.
 - Common **appliances** that use **electricity**.
- 

Switches can be used to open or close a **circuit**. When off, a switch 'breaks' the **circuit** to stop the flow of **electricity**. When on, a switch 'completes' the circuit and allows the **electricity** to flow.



Some materials let electricity pass through them easily. These are known as **conductors**. Many metals are good electrical conductors such as copper, iron and steel.



Scientist study: Thomas Edison (1847 - America)

Thomas Alva Edison was a famous **American inventor**. He is best known for inventing 'domestic' lightbulbs to go in houses, and the electric power system that allows them to work. He came up with over 1000 successful inventions in his lifetime.

Some materials do **not** let electricity pass through them. These materials are known as **insulators**. Plastic, wood, glass and rubber are good electrical insulators.



Word	Definition
components	The parts that something is made of
voltage	A collection of cells
batteries	Small device that provides power for some electrical items
cell	Converts energy to electricity
circuit	A complete route which an electric current can flow around
current	A flow of electricity through a wire or circuit
short circuit	An electrical circuit in a device of lower resistance
resistance	A measure of its opposition to the flow of electric current
conductor	A substance that heat or electricity can pass through
insulate	A non-conductor of electricity or heat

Key Vocabulary

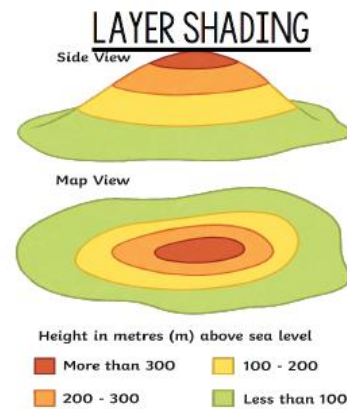
altitude	The height above sea level.
avalanche	A large amount of snow that quickly moves down a mountain or slope.
crust	The outermost layer of the earth.
gorges	A narrow valley with steep walls, found between hills or mountains.
hypothermia	A serious condition when the body gets too cold and can't warm itself up.
lava	Hot, liquid rock that flows from a volcano.
magma	Hot, liquid rock located deep below the earth's surface.
summit	The highest point of a mountain.
tectonic plate	Pieces of the earth's crust connected together.

- Mountains are a natural part of the landscape with steep slopes.
- They rise above 300m.
- They have a **summit** of at least 600m.
- Some mountains are found in groups called a mountain range but some mountains can be on their own.
- Not all mountains are single **summits**.
- Mount Everest is the highest mountain in the world – 8848m.

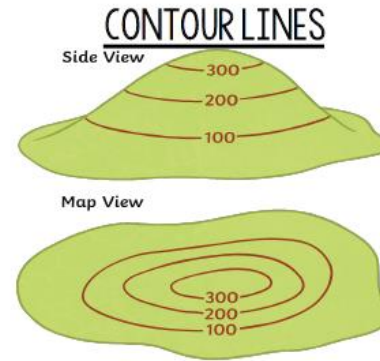


Why Do People Visit Mountains?

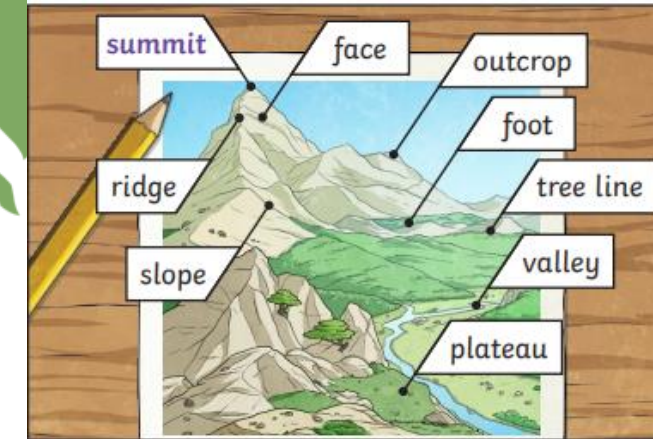
- The view
- Keeping fit
- The challenge
- Skiing
- Climbing
- Photography



Areas of different heights are shown using different colours. A key is used to show how high the land is.



Contour lines are lines on a map which join up places of the same height. Everywhere along a contour line is the same height.



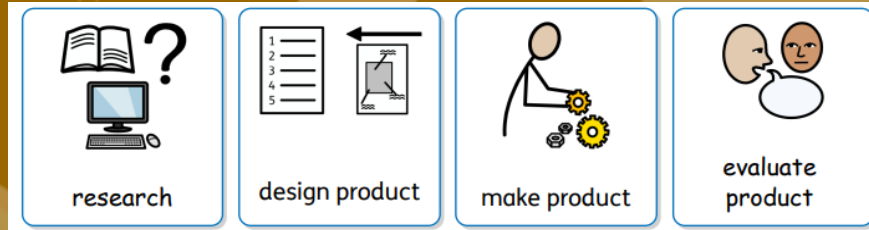
Maps are divided into grid squares. These help to locate places/objects on a map easier. Each grid square is given a number. In order to find a grid reference you must go "Along the corridor and then Up the Stairs."

biome with an electrical circuit including buzzer/ lamp/ switch



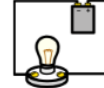



DT Knowledge Organiser- Year 4 Term 5

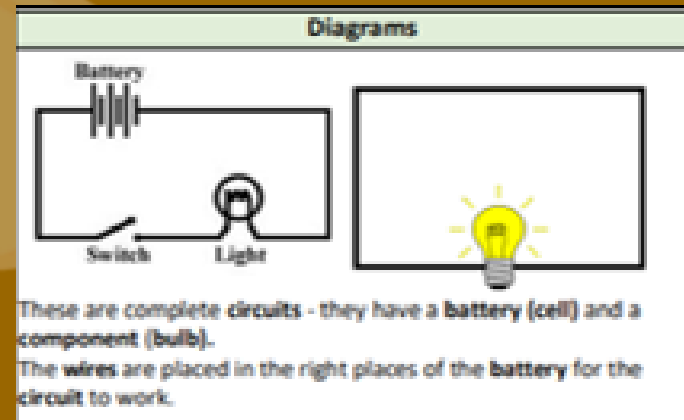
Electrical systems











The Design Process



What I should know already

 produce labelled diagrams	 product must meet design criteria	 how to make a simple circuit
 choose best materials and equipment to use	 things that use electricity	 electricity can be dangerous



Some components of an electric circuit					
	Wire	cell	switch	buzzer	lamp
Circuit Diagram					
Picture					

Vocabulary

electricity- Electricity (or electrical current) is a flow of electrons (negatively charged particles) which transfers energy

components- The part that something is made from

voltage- A collection of cells

batteries- Small device that provides power for some electrical items

cells- Convert energy to electricity

circuit- A complete route which an electric current can flow around

current- A flow of electricity through wire or circuit

bulb- A device made of rounded glass used to create electric light

bulb holder- A device that holds a bulb

buzzer- A signaling device that makes a noise

switches- A switch is an electrical component that can 'make' or 'break' an electrical circuit

pressure pad- A soft padded sensor that responds to pressure

crocodile clips- A clip that is used to connect an electrical circuit



Knowledge

I can identify the web of relationships that I am part of, starting from those closest to me and including those more distant

I can identify someone I love and can express why they are special to me
I can tell you about someone I know that I no longer see

I can explain different points of view on an animal rights issue

I understand how people feel when they love a special pet

I know how to show love and appreciation to the people and animals who are special to me

The Jigsaw! Charter

We take turns to speak

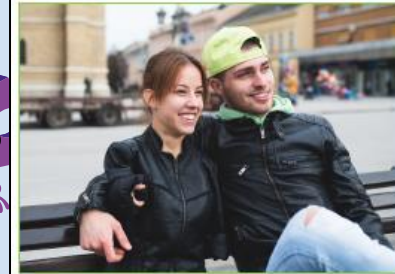
We use kind and positive words

We listen to each other

We have the right to pass

We only use names when giving compliments or when being positive

We respect each other's privacy (confidentiality)



Key Vocabulary



relationship



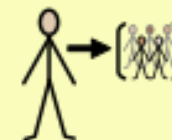
friendship



family



love



belonging

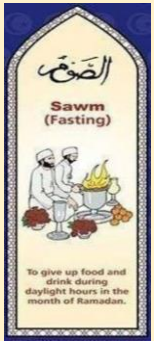


attract

Term 5: Why are festivals important to religious communities? (L2.5)

Expressing

Celebrating Eid as a Muslim.



Why do Muslims fast during Eid?
What do they believe?

What matters most to a Muslim child during Eid?



Fasting is the third pillar of Islam

Religious festivals

What matters to believer in different religions during religious festivals?

Questions

- What happens at religious festivals?
- What are religious festivals like in real life?
- Why are religious festivals so important?
- What are the similarities and differences between Passover and Eid?

Why was Mo Salah tweeting about Eid?



Celebrating Pesach/ Passover in the Jewish community.



A Sedar plate

The story of Moses and the Plagues



How does Idina Menzel celebrate Passover?





Overview



- Gymnastics is a sport that combines physical strength, flexibility, balance, coordination, and grace. It includes various disciplines, such as artistic, rhythmic, trampoline, and acrobatic gymnastics. Gymnasts perform routines that involve complex movements, flips, balances, and swings.
- Gymnastics helps build core strength, body awareness, and flexibility, making it a fundamental sport for physical development.
- It is a structured sport with routines performed individually or in teams, scored by judges based on difficulty, execution, and artistry.

Guidance

- **Scoring:** Gymnasts are scored on difficulty (complexity of movements) and execution (precision, control, and artistry). Points are deducted for mistakes, such as falls or wobbles.
- **Apparatus for Men:** Includes floor, pommel horse, rings, vault, parallel bars, and horizontal bar.
- **Apparatus for Women:** Includes floor, vault, uneven bars, and balance beam.
- **Routine Requirements:** Routines should include a combination of elements like jumps, turns, holds, and acrobatics. Gymnasts must meet specific criteria in competitive routines, such as including a certain number of skills from different difficulty categories.
- **Safety Guidelines:** Coaches should ensure gymnasts follow warm-ups and safety procedures, use mats, and practice under supervision, especially for advanced skills.

Further Support

- **Fédération Internationale de Gymnastique (FIG):** The international governing body for gymnastics, organizing competitions such as the World Championships and Olympics. [FIG Website](#)
- **British Gymnastics:** Governs gymnastics activities in the UK, offering programs for gymnasts of all levels. [BritishGymnastics Website](#)

Did you know?

Origins: Gymnastics traces back to ancient Greece and was formalized as a sport in the 19th century in Germany and Sweden.

Olympic Sport: Gymnastics has been part of the modern Olympic Games since 1896 for men and 1928 for women.

Health Benefits: Gymnastics helps improve flexibility, strength, coordination, and body control and is beneficial for developing confidence and discipline.

Skills

Balance: Core stability and body control to hold positions such as handstands and scales.

Flexibility: The ability to perform splits, bridges, and other movements requiring a wide range of motion.

Strength: Core, arm, and leg strength are essential for skills like handstands, jumps, and swings.

Coordination: Essential for complex movements involving multiple body parts, like flips and twists.

Spatial Awareness: Knowing one's body position in the air and during routines helps with safe landings and proper alignment.

Discipline and Focus: The sport requires concentration and mental strength to master challenging movements and routines.

Vocabulary

Routine

Apparatus

Dismount

Tuck

Pike

Straddle

Star

Split

Handstand

Cartwheel

Balance

Somersault

Coordination

Overview



- Athletics is the name for a number of different sports that require strength, endurance and skill. Athletics includes track and field events.
- Track events involve running and sprinting. Examples are the 100 metre sprint and hurdles. Field events often use skills like jumping and throwing. Examples include the shotput throw and the long jump.
- Someone competing in athletics is known as an athlete. They should learn how to perform movements safely, build our confidence and respond to feedback given by others.

Rules

- Exercise in safe spaces. Be mindful of others.
- Keep your head up and know what is around you.
- Warm up properly including stretching your muscles.
- Bend your knees when you land jumps.
- When using obstacles, make sure that they are a safe height and are not fixed in the ground.
- Make sure that equipment is in working order.
- Make sure that equipment is put away properly.
- Warm down after exercising.
- Remove jewellery and wear suitable clothing/ equipment.

Further Support

- English Schools Athletics Support - <https://esaa.org.uk>
- England Athletics - <https://www.englandathletics.org>
- World Athletics - <https://worldathletics.org>
- Sports Hall athletics <https://www.sportshall.org>

Did you know?

Athletics is one of the oldest sports in the world. The origins of athletics can be traced back to ancient civilizations such as Greece, Egypt, and China, where running, jumping, and throwing competitions were held

Skills

Skill	Definition	How do I do this?
Sprinting	To run a short distance at top speed.	<ul style="list-style-type: none"> • Keep looking straight ahead, and take big strides. • Run on the balls of your feet and lift your knees high and fast. Use your arms for balance (alternate to legs) moving from pockets to mouth.
Hurdling	To leap over obstacles whilst running.	<ul style="list-style-type: none"> • Look straight ahead when running and hurdling so that you don't over-rotate. Bend your knees on take-off and landing. Count the number of strides • between each obstacle and try to keep this even. • Keep a rhythm between the obstacles.
Jumping	To leap over obstacles whilst running.	<ul style="list-style-type: none"> • Bend your knees on take-off and landing. • For distance, swing your arms up for momentum. • Where appropriate, take off from two feet.
Throwing	To launch something with force from the hand.	<ul style="list-style-type: none"> • Begin with a high elbow in line with shoulder and back of head. Point your non-throwing arm in direction of target. Foot of non-throwing side forward. Push throwing arm forward and release.
Using multiple skills	To use the above skills together.	<ul style="list-style-type: none"> • Many events involve running and jumping or running and throwing. Make sure that you are still keeping the correct technique, for skill & strength.

Vocabulary

Athletics
Strength
Speed
Endurance
Running
Jumping
Throwing
Sprinting
Obstacle
Equipment
Persevere
Hurdling
Distance

Je me présente

phonics

in

sound in:
• cinq 5

i

sound in:
• huit 8

• dix 10

&

silent letters

There are many last consonant silent letters in French. The final letter 's' is silent in the words 'Paris' and 'Londres'.

elision

Elision is a type of contraction. The last letter of a word is dropped and replaced with an apostrophe. It is attached to the word that follows beginning with a vowel, so *je* becomes *j'* as in *j'habite* as an 'h muet' acts like a vowel in *habite*.

vocabulary

Numbers 1-20 in French.
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20

How to present myself:



Salut ! Je m'appelle Cécile et j'ai dix ans. J'habite à Lyon.

Hi! My name is Cécile and I am ten years old. I live in Lyon.

Key questions:

Ça va ?

How are you?

Comment t'appelles-tu ?

What is your name?

Quel âge as-tu ?

How old are you?

Où habites-tu ?

Where do you live?

grammar

To understand adjectives better in French and how they may change spelling depending on what they are describing. This is called adjectival agreement.



Je suis française.

I am French.



Je suis français.

I am French.

First person high frequency verbs:

je suis

I am

j'ai

I have

j'habite

I live

What I will learn:

- Objective 1: I will use basic greetings in French, ask somebody how they are feeling and reply when asked to me.
- Objective 2: I will ask somebody their name in French and reply when asked to me.
- Objective 3: I will recall numbers 1-10 and count from 11-20 in French.
- Objective 4: I will learn how to ask somebody how old they are in French and reply when asked to me.
- Objective 5: I will learn how to ask somebody where they live in French and reply when asked to me.
- Objective 6: I will learn how to express my nationality in French and understand basic gender agreement rules.

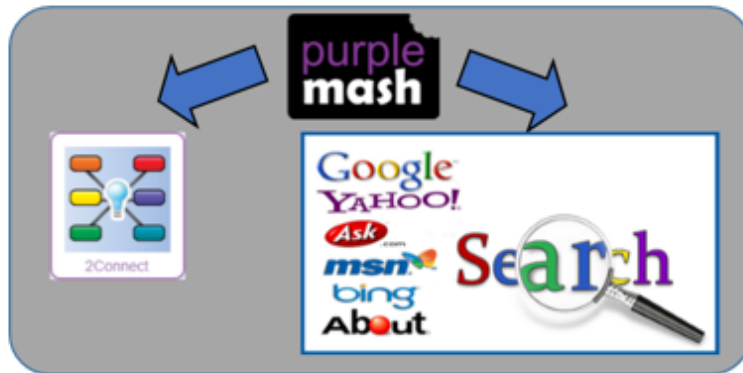
Unit: 4.7 – Effective Searching

Key Learning

To locate information on the search results page.

To use search effectively to find out information.

To assess whether an information source is true and reliable.

Key ResourcesKey Vocabulary

Easter egg – An unexpected or undocumented feature in a piece of computer software or on a DVD, included as a joke or a bonus.

Internet – A global computer network providing a variety of information and communication facilities.

Internet browser – A software application used to locate and display Web pages.

Search – To look for information. In this case on the Internet.

Search engine – A program that searches for and identifies items in a database. Used especially for finding sites on the World Wide Web.

Spoof website – Website spoofing is the act of creating a website, as a hoax, with the intention of misleading readers that the website has been created by a different person or organisation.

Website – A set of related web pages located under a single domain name.

Key Questions

What is a search engine?

A search engine is a piece of software that allows the user to find and then display pages from the World Wide Web.