

Diary dates

PE days: Thursday (outside - hockey) and Friday (inside - gymnastics)

Spelling test - every Thursday
Homework and reading diaries will be checked every Friday.

Maths

This term, we will focus on:

- Finding the area of shapes
- Comparing the area of shapes
 - Multiples of 3
- Multiplying and dividing by 6
- Multiplying and dividing by 9
- Multiplying and dividing by 7
- Multiplying and dividing by 12
 - Multiplying by 1 and 0
- Dividing a number by itself
- Multiplying three numbers

This term's times table focus is the 7 times table.

PSHE

During PSHE lessons this term, we will learn about:

- Respect and bullying
- Character strengths - how we can be our best selves

English



FARThER
Writing outcomes:

- Instructions
- Poetry
- Recount



Iron Man
Writing outcomes:

- Story opener
- Letter of advice

DT

We will be designing, making and evaluating our own electrical torches.

Geography

We will answer the following questions during our geography lessons:

1. What is climate?
2. Where is Antarctica?
3. Who lives in Antarctica?
4. Who was Shackleton?
5. Can we plan an expedition around school?

RE

We will answer these questions during RE this term:

1. Why is Mahatma Gandhi a Hindu Hero?
2. What is it like to be a Hindu in Britain today?

Science

Electricity and circuits

1. Using electricity: recognising how electrical appliances are powered.
2. Building circuits: constructing electrical circuits and drawing scientific diagrams.
3. Switches: exploring how switches work in circuits.
4. Electrical conductors and insulators: exploring the use of different materials.
5. Bulb brightness: investigating what affects bulb brightness.
6. Electrical safety: understanding how to be safe around electricity

Multiplication and Division

Knowledge Organiser

Key Vocabulary

Multiplication and Division Facts

Use Place Value to Multiply and Divide Mentally

multiply

groups of

lots of

times

divide

share

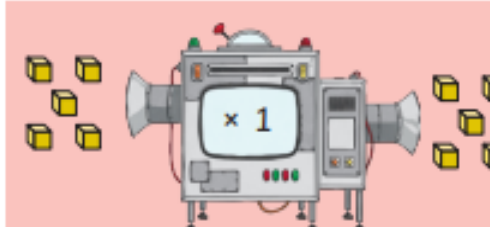
remainder

factor

multiple

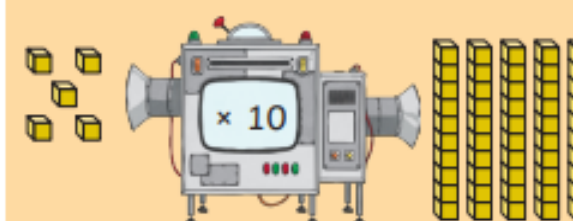
product

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144



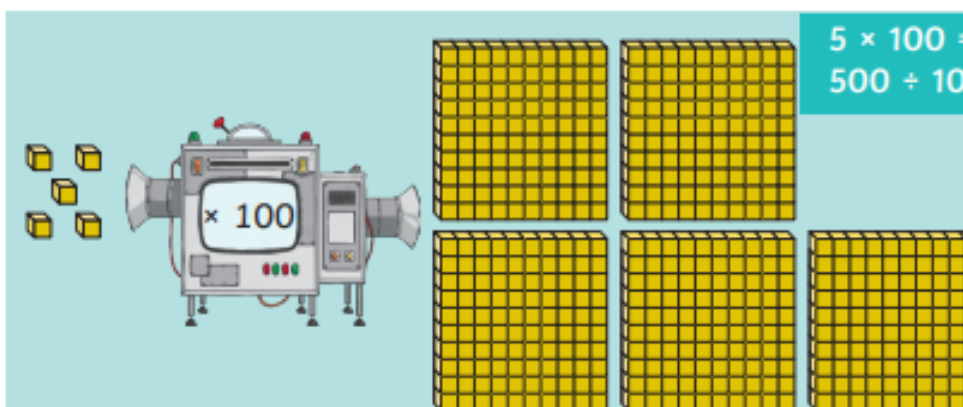
$$5 \times 1 = 5$$

$$5 \div 1 = 5$$



$$5 \times 10 = 50$$

$$50 \div 10 = 5$$

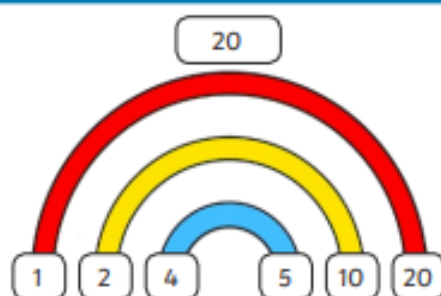


$$5 \times 100 = 500$$

$$500 \div 100 = 5$$

Factor pairs and Commutativity

Multiply Using Formal Written Methods



The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:

1 and 20 2 and 10 4 and 5

$$5 \times 4 = 20$$



$$4 \times 5 = 20$$



Th	H	T	O
	5	4	3
x			4

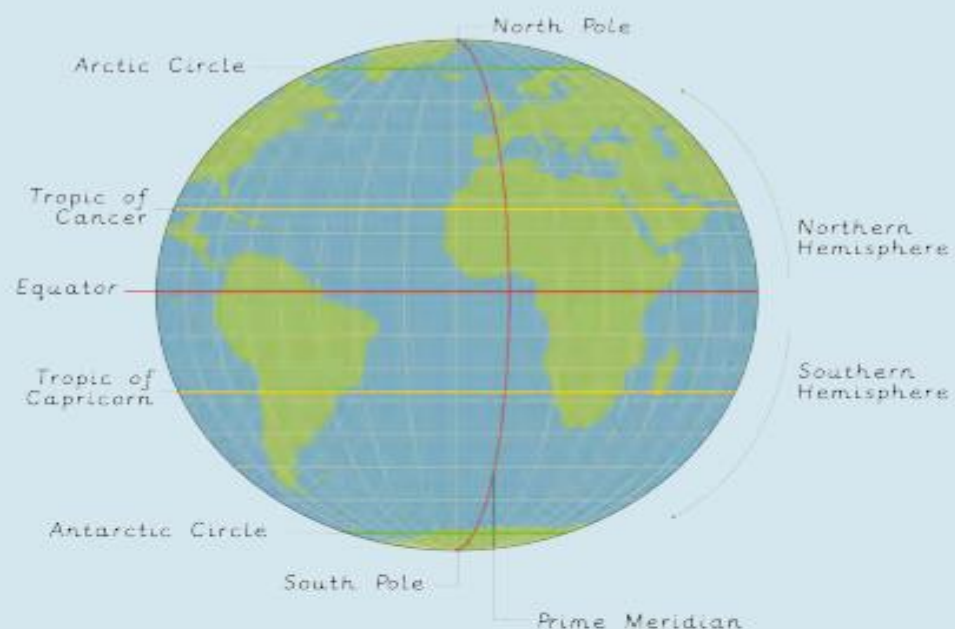
		1	2	(4 × 3)
	1	6	0	(4 × 40)
2	0	0	0	(4 × 500)
2	1	7	2	

Th	H	T	O
	5	4	3
x			4

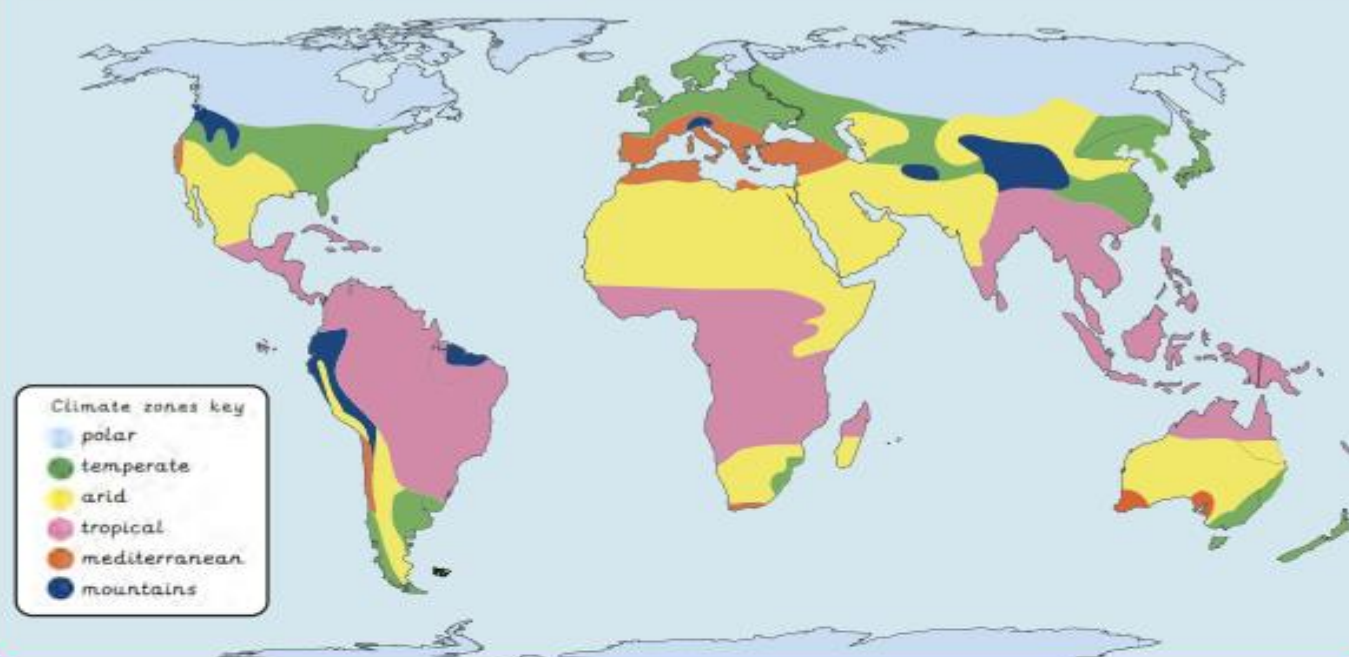
			4
2	1	7	2
	1	1	

Remember to move any regrouped numbers into the next column. After the next multiplication, add the regrouped number to the answer.

Lines of latitude and longitude



Climate zone map



Compass points

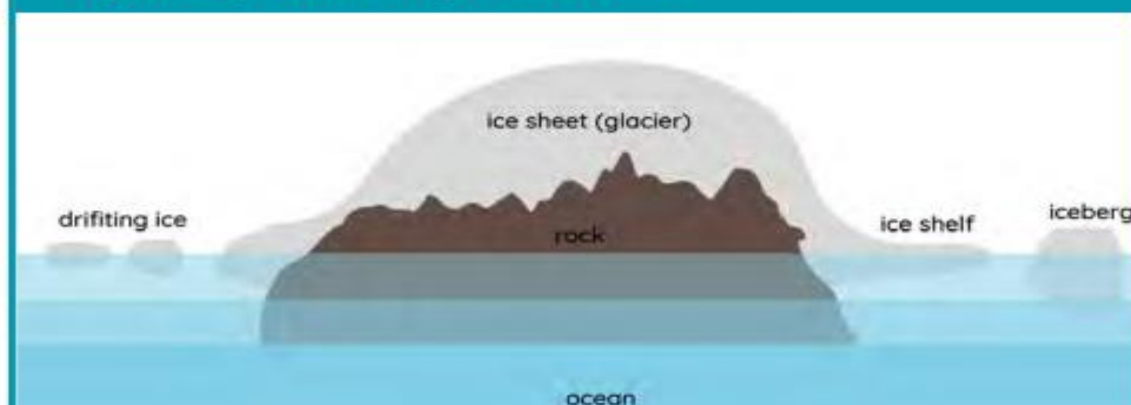


Who lives in Antarctica?



Nobody permanently. However, tourists and researchers do visit.

Physical features of Antarctica



lines of latitude	Invisible horizontal lines mapped on our globe to show how far north or south a place is from the Equator.
lines of longitude	Invisible vertical lines mapped on our globe to show how far east or west a place is from the Prime Meridian.
hemisphere	One half of the Earth.
climate	The long-term weather conditions in a specific region.
climate zone	Areas of the world grouped together that have a similar climate.
compass points	North, east, south, west, north-east, south-east, south-west, north-west
direction	An imaginary line showing the way someone or something is moving.
treaty	A formal, written agreement between two places.
ice shelf	A thin layer of ice extending off a glacier into the sea.
ice sheet	A layer of ice covering the land for a long period of time, also known as a glacier.
drifting ice	Thin, floating pieces of ice not attached to a glacier.
iceberg	Large chunks of floating ice that break off a glacier.

D&T - Torches

battery	Made from two or more cells that provide electrical energy to power a circuit.
bulb	A part of a circuit made from glass or plastic that gives light when electricity passes through it.
conductor	A material that allows electricity to flow through it, such as metal.
design criteria	A set of instructions for the project.
electricity	A type of energy that is usually invisible and can be made or stored to make things work, such as moving or heating objects.
insulator	A material that does not let electricity flow through it, such as plastic.
series circuit	A closed circuit where the current flows in one path.
switch	A part of a circuit that can open or close to allow electricity to flow or stop it from flowing, such as a light switch that turns lights on or off.
test	To find out whether something works as it should.
torch	A battery-powered light that can be carried.
wire	A thin piece of copper that conducts electricity and connects circuit components together.

Many products use batteries.



In the past, there were no electrical items because they had not been invented yet.

Electrical appliances

Electrical appliances are found all around us.



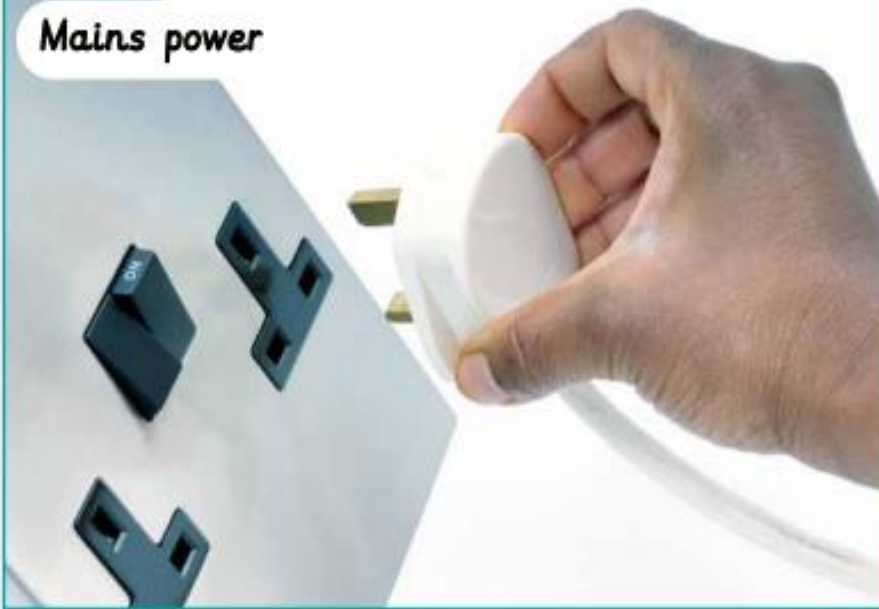
An electrical circuit is the pathway through which electrical charge flows in an appliance.

For a circuit to work, it must include:

- A power source.
- A complete pathway.
- A device or component, such as a bulb.

Power source: something that transfers electrical energy to make an appliance work.

Mains power



- Provides high power for larger appliances.
- Requires access to an electrical socket.
- Appliances are fixed in place.

Batteries



- Allows an appliance to be portable and used anywhere.
- Allows an appliance to be used where no electrical sockets are available.
- Batteries run out and need replacing.
- Batteries are harmful and must not go to landfill.

A **component** is a part of an electrical circuit.

Symbols are often used to represent the components so they are easy to draw and recognise.

battery/cell



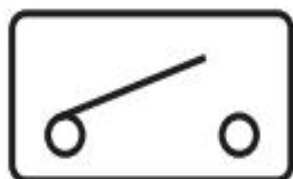
wire



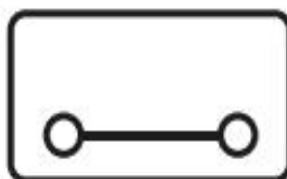
bulb



open switch



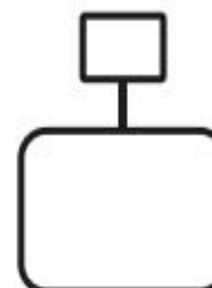
closed switch



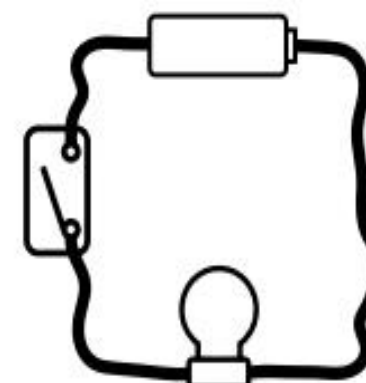
buzzer



motor



A **circuit diagram** is a simple line drawing that represents how the components in an appliance join together.



Electrical conductors are materials that allow electrical charge to flow through quickly.



Metals are good electrical conductors.

Electrical insulators are materials that do not allow electrical charge to flow easily.



Plastics are good electrical insulators.

Electrical safety



- Do not use electrical appliances or switches with wet hands.
- Do not put anything other than a plug in an electrical socket.
- Let an adult know if electrical appliances or wires appear damaged.
- Do not leave electrical wires laying across the floor or on hot surfaces.