

# Y4 Curriculum Overview

## Autumn 2

### Reading

To access our curriculum, it is essential children can read. Please ensure your child reads daily and complete their reading record. Thank you for your support.

### Writing

This term we will be learning to **Rewrite a traditional story** and write **Poetry**. To support your child's learning, please find the **Knowledge Organiser** attached for English.

### Maths

This term we will be learning about **Measurement** and **Multiplication & Division**. To support your child's learning, please find the **Knowledge Organiser** attached for these units.

### Science

This term we will be learning about **Physics: Electricity**. To support your child's learning, please find the **Knowledge Organiser** attached for this unit.

### Geography

This term we will be learning about **The Water Cycle**. To support your child's learning, please find the **Knowledge Organiser** attached for this unit.

### DT

This term we will be learning about **Mechanisms**. To support your child's learning, please find the **Knowledge Organiser** attached for this unit.

### PSHCE

This term we will be learning about **Very Important Persons**. To support your child's learning, please find the **Knowledge Organiser** attached for this unit.

### Computing

This term we will be learning about **Digital Literacy**. To support your child's learning, please find the **Knowledge Organiser** attached for this unit.

### RE

This term we will be learning about **What is the Trinity and why is it important for Christians?** To support your child's learning, please find the **Knowledge Organiser** attached for this unit.

Thank you for your continued support. More information can be found on the school website.

If you would like any extra support, please speak to your child's teacher.

**Believe – Achieve - Succeed**

# Y4 Home Learning Menu

## Autumn 2

### Knowledge Organiser Attached: Rivers

<b>Week 1</b>	<i>Know and understand 'The Big Idea'</i>
<b>Week 2</b>	<i>Know and understand 'The Sticky Knowledge'</i>
<b>Week 3</b>	<i>Know and understand the first 6 pieces of 'vocabulary'</i>
<b>Week 4</b>	<i>Know and understand the rest of the 'vocabulary' section</i>
<b>Week 5</b>	<i>Know any other information on the Knowledge Organiser</i>
<b>Week 6</b>	<i>Revise and consolidate learning.</i>

#### Daily Reading

Make sure this is recorded in your Reading Journal

1 Dojo is scored for reading at least 4 out of 5 days a week at home.

#### Weekly Maths task

This will be sent each week. Use TT Rockstars to practise your times tables

#### Weekly Spellings

1 Dojo is awarded for scoring at least 7/10 on the weekly test.

### Project Tasks

#### DT (Mechanisms)

Use materials from your home to make your own pop up card.



#### PSHCE

Create a poster which shows 10 different ways to be kind to others.



#### Geography

Research the question:  
Why are so many cities located next to a river?

Make a poster using information and diagrams to answer the topic question.



All projects (blue boxes) must be back in school for a celebration lesson in class on **Wednesday 13<sup>th</sup> December 2023**

Remember the more you home learning you do, the more Dojos you will achieve!  
You could tweet us when you are working on your home learning @masefieldCP



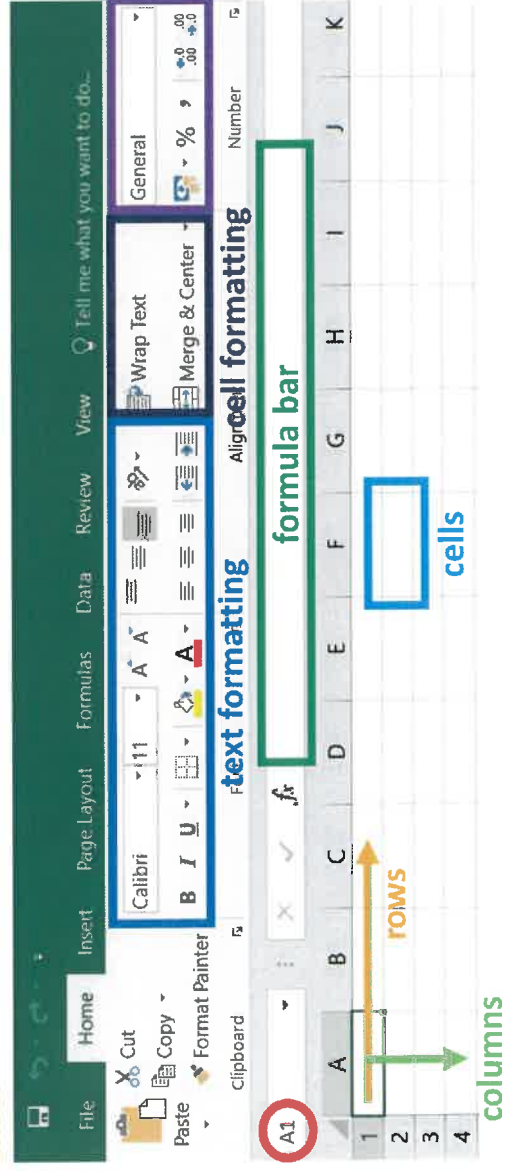


## Year 4 – Digital Literacy

### Sticky Knowledge:

- ✓ I can transfer my word processing skills into other multimedia packages such as PowerPoint.
- ✓ I can include imported images, hyperlinks and the use of sounds recorded.
- ✓ I can enter a basic mathematical formula into Excel.
- ✓ I can add basic mathematical formulas.
- ✓ I can use SUM to calculate the total of a set of numbers in a range of cells.
- ✓ I can change the look of a spreadsheet by using different formats.
- ✓ I can insert and delete columns and rows in a spreadsheet.
- ✓ I can use spreadsheets to create a graph.
- ✓ I can decide on the most appropriate form of graph for a data set and give reasons for my choice.
- ✓ I can interpret graphs of data collected from sensors.

### Microsoft Excel



**Cell reference**

### Big Idea:

I can select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

### Formula

We can use formula to complete mathematical operations for us. Use SUM to calculate the total of a set of numbers.

**=SUM(C2:C3)**

This will tell us the sum of the numbers in cells C2 and C3.

### Vocabulary

#### Spreadsheet:

A document where data is entered in rows and columns.

#### Formula:

A mathematical rule presented in symbols.

#### SUM:

A formula that adds up a set of numbers across cells.

#### AutoSUM:

An automatic function which adds together a range of cells and displays the total in a cell below.

#### Sort:

To organise data, for example by date, number or alphabetical order.

#### Filter:

To pick out data that matches a particular circumstance.

**number formatting**



## Unit L2.3 What is the 'Trinity' and why is it important to Christians?

### Sticky Knowledge

- ✓ The 'Trinity' is one God but showing himself as three parts: God the Father, God the Son and God the Holy Spirit.
- ✓ God the Father means the creator and father of all humanity.
- ✓ God the son means Jesus; God on Earth sent to bring people back into a relationship with God.
- ✓ God the Spirit means God as an energy and powerful force that can help Christians to obey God's laws.

### Big Idea

How can their be one God split into three parts? Christians believe that there is one God that has three versions of himself. How might Christians relate to each of these aspects of God?

### Vocabulary

**Trinity:** God in three parts.

**Spirit:** Life force, energy given by God to help Christians lead a good life.

**Gospel:** Book in the Bible telling stories about Jesus.

### Important facts to know by the end of this topic:

- The bible has two main parts: The Old Testament and the New Testament.
- In the New Testament there are four Gospels. Matthew, Mark, Luke and John.
- Gospels tell stories about the life of Jesus.



## Sticky Knowledge

- ✓ Electricity occurs naturally, the most obvious and powerful being lightning.
- ✓ Traditionally, electricity was generated in power stations using fossil fuels (coal, gas, oil). However, burning these fuels causes global warming, so increasingly, more environmentally friendly methods such as solar, wind and water (hydro) are now used.
- ✓ A short circuit is when a circuit containing a cell / battery has no appliances to power. This causes the wires to dangerously overheat and the battery to quickly drain.

## Learning Components

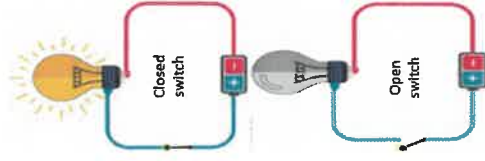
- ✓ I know how different common appliances are powered by electricity, either by using batteries or mains power.
- ✓ I know that electricity can be dangerous if used incorrectly.
- ✓ I know that circuits are complete loops, containing different components such as cells (batteries), wires, bulbs, switches and buzzers.
- ✓ I know that electricity flows through conductors such as metals.
- ✓ I know that electricity does not flow through insulators such as rubber and plastic.
- ✓ I know that switches are designed to open and close a circuit, enabling or disabling the flow of electrons.

## Big Idea

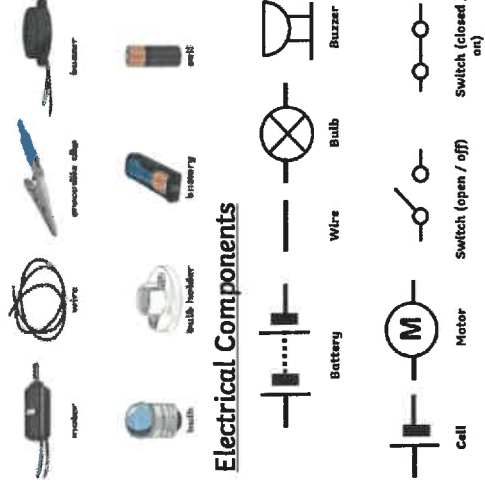
Electricity is the flow of electrons within materials. As they move, they generate electrical power which can be used to make things work. Electricity flows through closed / complete circuits, using wires to connect a power source to electrical components such as bulbs.

## Circuits, Components and Conductors:

### Switches



### Electrical Components

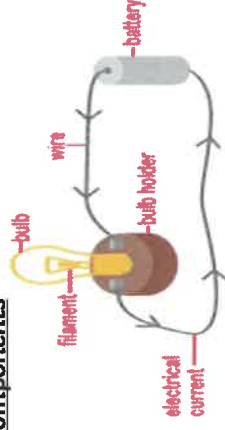


### Electrical Conductors / Insulators

Electrical Conductors	Electrical Insulators
Copper	Rubber
Iron	Wood
Steel	Plastic
Silver	Paper
Gold	



### Electrical Circuit with linked components

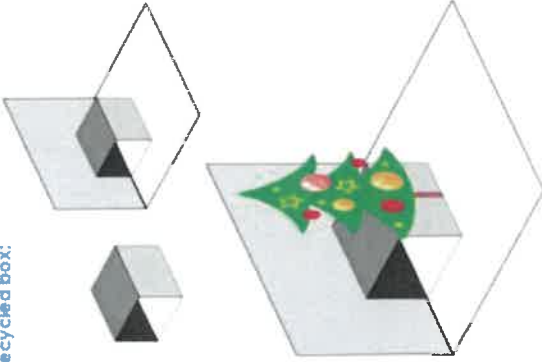


## Vocabulary

- Electricity:** The flow of electrons through conducting materials such as metal.
- Electrical Appliance:** A machine which is powered by electricity.
- Mains:** The electricity source from sockets within homes. This supply is more powerful than batteries and is generated by power stations.
- Cell / Battery:** A container that chemically stores electricity. They are used to power portable electrical appliances.
- Electrical Circuit:** A complete loop with no gaps or breaks of electrical components, linked by wires and containing a power source (cell / battery).
- Bulb:** An electrical device designed to create light.
- Switch:** A device which allows the controlled breaking and completion of circuits in order to turn things on/off.
- Buzzer:** An electrical device which makes a buzzing sound.
- Electrical Conductor:** Some materials let electricity pass through them easily. These materials (mostly metals) are known as electrical conductors.
- Electrical Insulator:** Some materials stop electricity passing through them.

## Levers and Linkages

Making a pop-up from a small section of a recycled box:



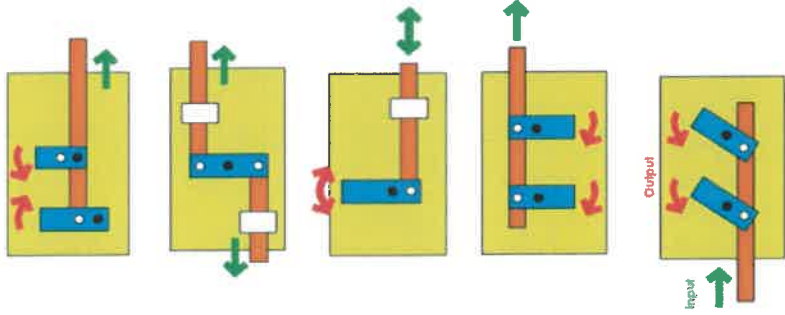
1. Cut a slice off a small box.
2. Glue two sides to the paper.
3. Stick a picture to pop up on the front.

## Engineer Study

### Sir James Dyson

- ✓ James Dyson is a British designer and inventor. He founded the Dyson Company and is best known for devising and promoting the Dyson Dual Cyclone bagless vacuum cleaner.
- ✓ Dyson experimented with a bagless vacuum cleaner design during the 1970s. He also devised the idea of using a ball instead of wheels, allowing the machine to turn more easily.
- ✓ The James Dyson Foundation was set up in 2002 to encourage education in design and engineering.

Lever and linkage mechanisms usually produce oscillating or reciprocating movement:



When you push the card strip (input movement), the two levers move (output movement).

- Linear – in a straight line
- Reciprocating – backwards and forwards in a straight line e.g. a slider
- Rotary – round and round e.g. a wheel, cam, pulley, gear wheel
- Oscillating – backwards and forwards in an arc e.g. a lever



## Vocabulary

**System** – a set of related parts used to create an outcome. Systems have an input, process and an output. In a lever and linkage mechanism, the ‘input movement’ is where the user pushes or pulls a card strip. The ‘output movement’ is where one or more parts of the picture move.

**Linkage** – the card strips joining one or more levers to produce the type of movement required. The term ‘linkage’ is also used to describe the lever and linkage mechanism as a whole.

**Slot** – the hole through which a lever is placed to enable part of a picture to move.

**Loose pivot** – a paper fastener that joins card strips together.

**Fixed pivot** – a paper fastener that joins card strips to the backing card.



# Year 4 Multiplication and Division

## Multiplication Strategies

### Expanded Column Method

$$\begin{array}{r}
 42 \\
 \times 6 \\
 \hline
 12 \quad (2 \times 6) \\
 240 \quad (40 \times 6) \\
 \hline
 252
 \end{array}$$

Line up the ones and the tens.

Multiply the ones.

Multiply tens.

Add the totals together.

$$42 \times 6 = 252$$

## Multiplication Magic

$$60 \times 4$$

Draw the wizard's hat to find the facts to calculate

$$6 \times 4 = 24$$

Multiply the answer by 10/100/1000

$$60 \times 4$$

Write your final answer

$$60 \times 4 = 240$$

x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

## Multiplication

- multiply
- times
- groups of
- lots of
- repeated addition
- product
- multiplied by

## Division

- group
- grouping
- sharing
- half
- halves
- share equally
- equal groups



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