








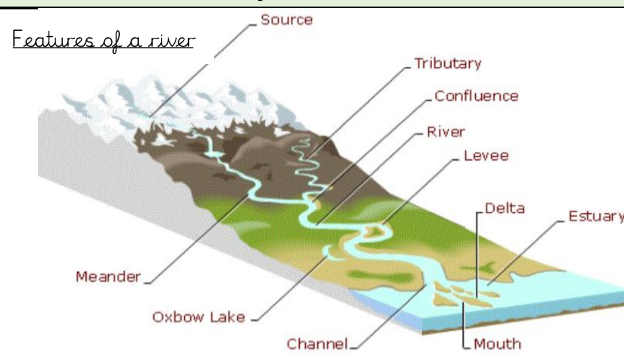
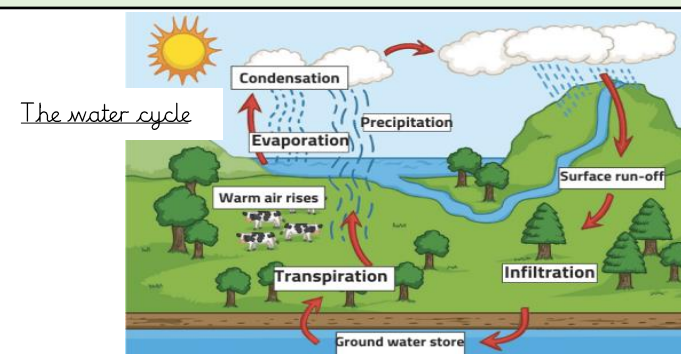
# Ridgeway Farm CE Academy - Knowledge Organiser

Topic	Geography - Rivers	Theme	Explorers	Year Group	4
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Key Question	Do rivers help us explore?				
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What should I already know?		Geographical Skills and Fieldwork			Vocabulary	
<ul style="list-style-type: none"><li>The seven continents, five oceans and surrounding seas of the United Kingdom.</li><li>The names of some key rivers around the world including the Thames and Nile.</li><li>The main biomes and climate zones around the world.</li><li>The water cycle and where our water comes from.</li><li>How sedimentary rocks are formed.</li><li>The effects of climate change on the poles.</li></ul>		<ul style="list-style-type: none"><li>Describe how the water cycle works.</li><li>Recognise key features and courses of a river.</li><li>Label maps to show where rivers can be located.</li><li>Name and locate some of the world's longest rivers.</li><li>Collect data on the features of a local river. Sketch the river including the features that can be seen.</li><li>Describe how rivers are used and why they are important.</li><li>Explore the structure and purpose of dams.</li><li>Use the index in atlases to find rivers.</li></ul>			channel	this is the path a river takes.
					confluence	the junction of two rivers.
					dam	a man-made structure that helps to restrict and control the flow of water in a river.
					deposition	materials transported by the river are deposited usually at the mouth or estuary of a river.
					erosion	the gradual destruction and removal of rock or soil in particular areas by rivers, the sea or the weather.
<div>estuarythe wide part of a river where it joins the sea.</div>						
<div>meandera bend in the river.</div>						
<div>mouthwhere the river flows into another body of water. it could be where the river meets the sea, a lake or a larger body of water.</div>						
<div>oxbow lakewhen part of a river gets cut off through erosion.</div>						
<div>rivera flow of fresh water across the land into a lake, sea or ocean.</div>						
<div>sedimentnatural material that is carried and deposited by a river.</div>						
<div>settlementa place where people create a community.</div>						
<div>sourcethe start of the river, usually found in the hills or mountains.</div>						
<div>streama small narrow river.</div>						
<div>tributarya stream or river that flow into a larger river.</div>						
<div>water cyclethe circulation of the earth's water.</div>						
<div>waterfalla place where water flows over the edge of a steep, high cliff in hills or mountains, and falls into a pool below.</div>						
Key Information						
<ul style="list-style-type: none"><li>The water cycle is the way in which water moves around the Earth. It never stops!</li><li>A river is a path that water takes as it flows downhill, normally towards another river, a lake, sea or ocean.</li><li>Rivers come in many different shapes and sizes and often join together to make larger rivers.</li><li>As rivers are a ready source of water, lots of plants and animals live near them.</li><li>Most inland human settlements were originally formed around rivers. In addition to drinking and bathing, rivers were also important waterways for trade.</li><li>Rivers have many uses around the world, including cleaning, cooking, growing crops, transport and creating power.</li><li>Rivers can overflow or burst their banks when there has been too much rainfall, causing significant flooding. At which point they become exceptionally dangerous and can cause damage to local communities.</li><li>Flooding can be prevented in some areas by building dams and other flood barriers.</li></ul>						
Notable Rivers						
River Ray - River in Wiltshire	Thames - River in England	Danube River - River in Europe	Nile - River in Africa.	Amazon River - River in South America		
						

## Diagrams





# Ridgeway Farm CE Academy - Knowledge Organiser

Topic

Science - States of Matter

Theme

Explorers

Year Group

4

What should I already know?

What will I know by the end of the unit?

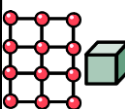
What is the water cycle?

<ul style="list-style-type: none"> <li>Why some materials are used for certain purposes because of their <b>properties</b></li> <li>The <b>water cycle</b>, and the <b>processes of evaporation, condensation and precipitation</b></li> </ul>	
<b>Vocabulary</b>	
condensation	small drops of water which form when <b>water vapour</b> or steam touches a cold <b>surface</b> such as a window
cooling	lowering the <b>temperature</b> of something
evaporation	to turn from liquid into gas; pass away in the form of <b>vapour</b> .
freezing	if a <b>liquid</b> or a substance containing a <b>liquid</b> <b>freezes</b> , it becomes <b>solid</b> because of low <b>temperatures</b>
freezing point	the <b>freezing point</b> of a particular substance is the <b>temperature</b> at which it <b>freezes</b> . the <b>freezing point</b> of water is 0°C.
gas	a form of matter that is neither <b>liquid</b> nor <b>solid</b> . a <b>gas</b> rapidly spreads out when it is warmed and contracts when it is <b>cooled</b> .
heating	raising the <b>temperature</b> of something
liquid	in a form that flows easily and is neither a <b>solid</b> nor a <b>gas</b> .
melting	to change from a <b>solid</b> to a <b>liquid</b> state through heat or pressure
melting point	the <b>melting point</b> of a particular substance is the <b>temperature</b> at which it <b>melts</b> .
particles	a tiny amount or small piece
precipitation	rain, snow, sleet, dew, formed by <b>condensation</b> of <b>water vapour</b> in the atmosphere
process	a series of actions used to produce something or reach a goal.
properties	the ways in which an object behaves
solid	having a firm shape or form that can be measured in length, width, and height; not like a <b>liquid</b> or a <b>gas</b>
temperature	a measure of how hot or cold something is
vibrations	when something <b>vibrates</b> , it shakes with repeated small, quick movements
water cycle	the <b>process</b> by which water on the earth <b>evaporates</b> , then <b>condenses</b> in the atmosphere, and then returns to earth in the form of <b>precipitation</b> .
water vapour	water in the <b>gaseous</b> state, especially when due to <b>evaporation</b> at a <b>temperature</b> below the boiling point

What is a particle?

- Particles** are what materials are made from.
- They are so small that we cannot see them with our eyes.
- The **properties** of a substance depend on what its particles are like, how they move and how they are arranged
- Particles** behave differently in **solids**, **liquids** and **gases**.

What is a solid?



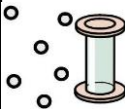
- In the **solid** state, the material holds its shape.
- Solids** have **vibrating particles** which are closely packed in and form a regular pattern.
- This explains the **fixed** shape of a solid and why it can't poured.
- Solids** always take up the same amount of space.

What is a liquid?



- In the **liquid** state, the material holds the shape of the container it is in.
- This means that **liquids** can change shape, depending on the container.
- Liquids** have **particles** which are close together but random.
- Liquid particles** can move over each other.
- Liquids** can be poured.

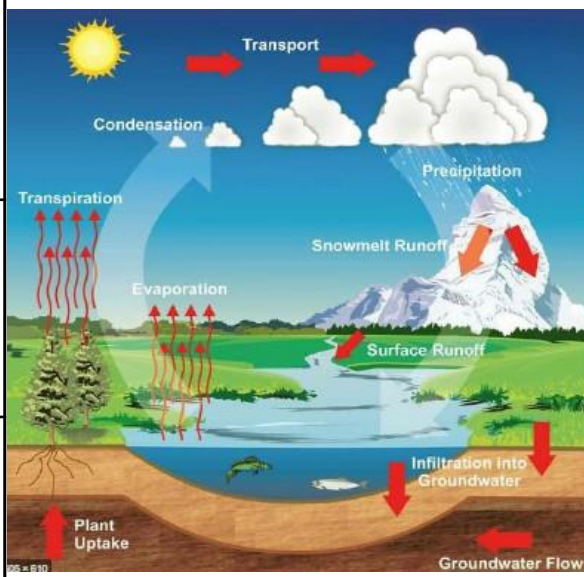
What is a gas?



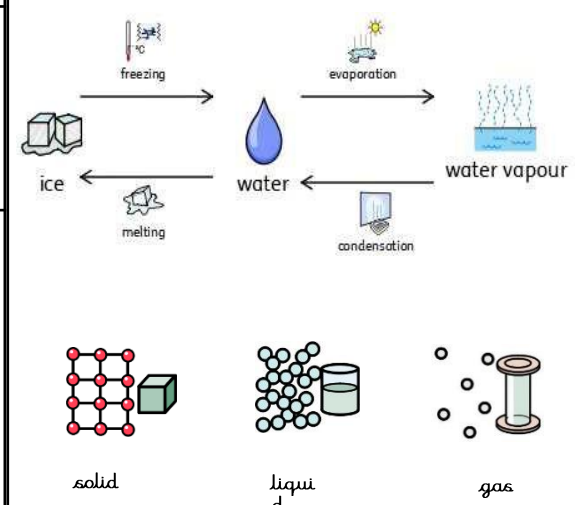
- In the **gas** state, **particles** can escape from open containers.
- Gases** have **particles** which are spread out and move in all directions.

What happens to the particles in water when it is heated or cooled?

- When water (in its **liquid** form) is **heated**, the particles start to move faster and faster until they have enough energy to move about more freely. The water has **evaporated** into a **water vapour**.
- When water is **cooled**, the particles start to slow down until a solid structure (ice) is formed. The water has **frozen**.
- The **temperature** at which water turns to ice is called the **freezing point**. This happens at 0°C..



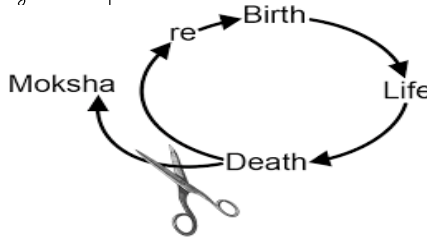






Diagrams





# Ridgeway Farm CE Academy - Knowledge Organiser

Topic	RE	Theme	Explorers	Year Group	4
Key Question	What does it mean to be Hindu in Britain today?				
Learning outcomes		Key knowledge			
<ul style="list-style-type: none"><li>To describe ways in which Hindus express their faith through puja, aarti and bhajans.</li><li>To explore the journey of life for Hindus and themselves.</li><li>To describe two of the four aims in Hindu life: Dharma and Moksha.</li><li>To describe how vibrant British Hindu life is.</li><li>To compare Hindu weddings in Britain and India.</li><li>What does it mean to be a Hindu in Britain today?</li></ul>		<ul style="list-style-type: none"><li>Puja is how Hindus show their faith in God. Puja is Hindu worship.</li><li>A puja tray is set up during worship. On the tray there is a small bell to wake the deity up for worship. Flowers which represent the beauty and fragrance of the created world. A diya lamp for aarti. Water in a pot which represents life. A spoon is used to give water to worshippers after it has been blessed. A murti (or image of Hindu deity) to worship and sweets or sugar to offer food for the deity.</li><li>Aarti symbolises that worship removes darkness.</li><li>Bhajans are worship songs devoted to different deities, some are fast and upbeat and some are peaceful and meditative. They have been developed to help worship.</li><li>The word dharma means duty in Hinduism. There are 10 duties 1) not getting angry 2) being truthful in speech 3) working for justice 4) forgiving people 5) having children when you are married 6) trying not to quarrel 7) living a simple life 8) looking after your family 9) fulfilling religious duties such as worship 10) study the scriptures.</li><li>The metaphor of 'life as a journey' can be used about Hindu aims and duties</li><li>The Hindu view of life is once you die, you are born again in another body, and live another life. This is called reincarnation.</li><li>Hindus believe life is a cycle of birth, death and rebirth.</li><li>Eventually, Hindus hope to not be reborn any more, they hope to join God and not live any more lives, which is called 'moksha'.</li><li>Hindu weddings are very big. In India, weddings are not only attended by the two families but two whole communities coming together.</li><li>It takes huge amounts of planning as there are so many guests.</li><li>There are lots of traditions at Hindu weddings. The couple are treated like king and queen for the day. A special necklace is given. The priest lights a fire. The couple walks around the fire 7 times. Nuts are shared together. Each nut represents a different quality that a couple need in their new life.</li></ul>			
Key vocabulary		 			
Mandir	A special place for Hindus to worship				
Dharma	Means duty in Hinduism				
Deities	The word in English is often used for Hindu gods and goddesses. Deity means god				
Aarti	Light, which removes darkness (ratri)				
Puja	Act of worship for Hindus				
Bhajan	Hindu worship songs				
Moksha	The ultimate aim of Hinduism is to leave the cycle of rebirth and become one with god.				
Hindu	Someone who follows Hinduism				
Kama	Pleasure and enjoyment of life				
Reincarnation	The cycle of birth, death and rebirth. Key Hindu belief.				
Murti	Special statues or images of Hindu gods and goddesses.				
Hinduism as a way of life					
All Hindus believe in four core beliefs: dharma, karma, artha and moksha. Throughout their lives, Hindus attempt to behave in a way that provides good karma in this life and the next. In this way, Hinduism is not just a religion; it is a culture, a code of behaviour and a way of life.		   			





# Ridgeway Farm CE Academy - Knowledge Organiser

Topic

Computing - Spreadsheets

Theme

Explorers

Year Group

4

## Key Learning

- To format cells as currency, percentage, decimal to different decimal places or fraction.
- To use the formula wizard to calculate averages.
- To combine tools to make spreadsheet activities such as timed times tables tests.
- To use a spreadsheet to model a real-life situation.
- To add a formula to a cell to automatically make a calculation in that cell.

## Key Resources

purple mash



2Calculate

## Key Vocabulary

### Average

A number expressing the typical value in a set of data. Also known as the mean. It is calculated by dividing the sum of the values in the set by their number.

### Spreadsheet

A computer program that represents data in cells in a grid of rows and columns. Any cell in the grid may contain either data or a formula that describes the value to be inserted based on the values in other cells.

### Formula

A group of letters, numbers, or other symbols which represents a scientific or mathematical rule. The plural of formula is formulae.

### Percentage

'per' 'cent' means number of parts per hundred.

### Timer

When placed in the spreadsheet, clicking the timer adds 1 to the value of the cell to its right every second until it is clicked again.

### Equals tool

Tests whether the entered calculation in the cells to the left of the tool has the correct answer in the cell to the right of the tool.

### Column

Boxes running vertically in a spreadsheet.

### Spin Tool

This tool changes a number to the right of it by one each time an arrow is pressed.

### Budget

The amount of money available to spend on a project.

### Random Number Tool

This tool, when clicked, will generate a random number.

### Data

A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making.

### Format Cell

The way that data is displayed in a cell. For example using units such as £ or \$.

### Decimal place

The position of a digit to the right of a decimal point. In 2Calculate, the number of decimal places to be displayed can be chosen.

### Formula Wizard

Use the formula wizard or type into the formula bar to create a formula in a cell, this will calculate the value for the cells based upon the value of other cells in the spreadsheet.

### Place value

This is the value of each digit within a number. For example 354, the 3 = 3 hundreds, the 5 = 5 tens and the 4 = 4 ones.

### Row

Boxes running horizontally in a spreadsheet.

### Line graph

A line graph is used to display information which can change over time. For example, temperature at different times of the day.

## Key Images



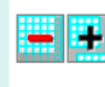
Open, close or share a file



Save your work



Open a previously saved file



Increase or decrease spreadsheet size



Advanced mode



Formula Wizard



Format Cell Toolbox



Charts



Totals toolbox



Image Tools



Controls Toolbox



Random Number



Spin



Equals



Timer



To Copy



To Cut



To Paste



## Key Learning

- To explore how font size and style can affect the impact of a text.
- To use a simulated scenario to produce a news report.
- To use a simulated scenario to write for a community campaign.

## Key Resources

**purple  
mash**



2Publish Plus



2Simulate

## Key Vocabulary

### Campaign

An organised course of action to achieve a goal.

### Format

The way in which something is arranged or set out.

### Font

A set of type which shows words and numbers in a particular style and size.

### Genre

The style or category type of a piece of art, music or writing.

### Opinion

A view or judgment someone forms about something, not always based on fact.

### Reporter

A person who reports news or conducts interviews for the press or broadcasting media.

### Viewpoint

The way someone sees or thinks about something.

## Key Images



Text Toolbar. Click here to format your text.

## Key Questions

### Why should I change the font when I am writing?

Changing the appearance of the font can help make things easier to read and highlight important parts of the text.



# Hábitats

ga

sound in:

• algas



gi

sound in:

• refugio



gu

sound in:

• agua



phonics

accents

Accents indicate the vowel is stressed. As seen in the nouns árboles and hábitats.

ñ tilde

This changes the 'n' to a 'ny' sound like in the English word 'onion'. As in the Spanish word araña.

5 different types of habitats.



5 different types of plants.



5 different types of animals.



vocabulary

To begin to explore how verbs can be spelt differently depending on who is doing the action.

crecer

to grow



Las algas crecen en el océano.

*Seaweeds grow in the ocean.*

vivir

to live



El oso polar vive en el Ártico.

*The white polar bear lives in the Arctic.*

grammar

## What I will learn:

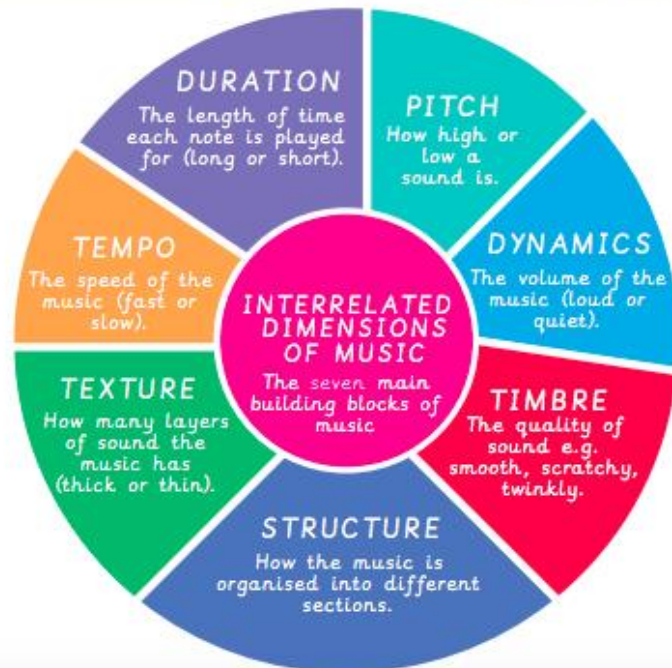
- ☐ Objective 1: I will learn the essential things plants and animals need to survive in Spanish.
- ☐ Objective 2: I will learn about 5 key habitats around the world in Spanish.
- ☐ Objective 3: I will learn to use the verb 'crecer' (to grow) to express which plants grow in these habitats.
- ☐ Objective 4: I will learn to use the verb 'vivir' (to live) to express which animals live in these habitats.
- ☐ Objective 5: I will use all my new knowledge to prepare a presentation for the class.





## Musical style: Classical

Classical music is music that has been composed by musicians who are trained in writing music (composing), such as Smetana, Vivaldi, Beethoven and Holst. The term 'classical music' can also refer to music composed in the classical period 1750 to 1825.



## Vocabulary

### Ostinato

A repeating musical pattern.

### Acapella

Singing without an accompaniment (music).

### Rounds

A song which is sung by two groups of people. One group starts singing, then the other group begins shortly after. The first group finishes first.

### Harmony

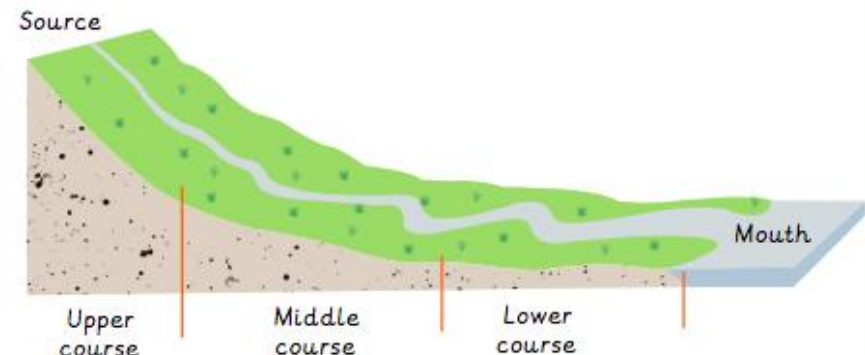
Playing or singing more than one pitched note at the same time.

### Cue

A signal (in either the music or from a conductor) which helps the performer know when to begin.

## River course

We are making links between the course of a river and music.





# Ridgeway Farm CE Academy - Knowledge Organiser

Topic

Design Technology - Cooking and Nutrition:  
Adapting a recipe

Theme

Explorers

Year Group

4

<b>adapt</b>	To change something to make it suitable for a new purpose.	<b>hygiene</b>	Keeping things clean.
<b>budget</b>	A plan of how to spend money.	<b>ingredients</b>	The foods used in a recipe.
<b>combine</b>	Mixing two or more ingredients together.	<b>market research</b>	Gathering information from the target audience.
<b>construct</b>	To build something.	<b>sieve</b>	A piece of kitchen equipment often used to remove lumps.
<b>cuboid</b>	A 3D shape with six rectangular sides.	<b>sift</b>	The process of removing lumps and adding air.
<b>design</b>	A plan for a recipe or product.	<b>target audience</b>	Groups of people that a product is made for.
<b>evaluate</b>	To decide how good something is.	<b>taste</b>	The flavour of a food.
<b>fold</b>	To bend something for a purpose.	<b>texture</b>	The feel of a food when eaten.



Working to a budget is spending a certain amount of money so the final product is affordable for the people who want to buy it.

## Skills



measuring



shaping



cutting out



sifting



mixing or stirring



Adapting a recipe is making a simple recipe unique by thoughtfully adding or removing ingredients.

A target audience is who will enjoy the product the most. Having a target audience makes it easier to choose how the product is designed.



family



people at work



tourists



gift givers





# Ridgeway Farm CE Academy - Knowledge Organiser

Topic

Art - Painting and Mixed Media

Theme

Explorers

Year Group

4

Composition	Putting different elements together in a pleasing way
Hue	Describing an exact colour: sky blue, dark green, rose pink
Proportion	How big a part of something looks compared to the rest of it
Shade	Adding black to a colour makes a shade
Shadow	A dark area created when light is blocked
Still life	An artwork showing a collection of things that don't move, e.g. objects rather than people
Tint	Adding white to a colour makes a tint
Tone	How light or dark a colour is

## Painting techniques



Dabbing



Stippling



Pointillism



Adding texture to paint



Washes



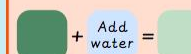
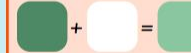
Using different tools

## Colour mixing



### Making colours lighter:

+ a lighter colour  
+ water  
+ white

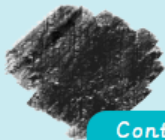


### Making colours darker:

+ a darker colour  
+ black



## Creating contrast



Contrasting texture



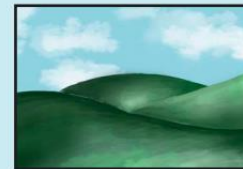
Contrasting colours



Using tints and shades can help a painted object appear three-dimensional



Portrait



Landscape

## Still life

