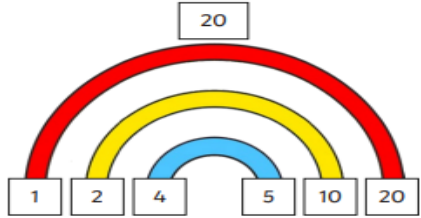
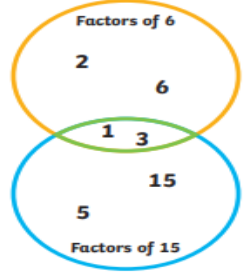
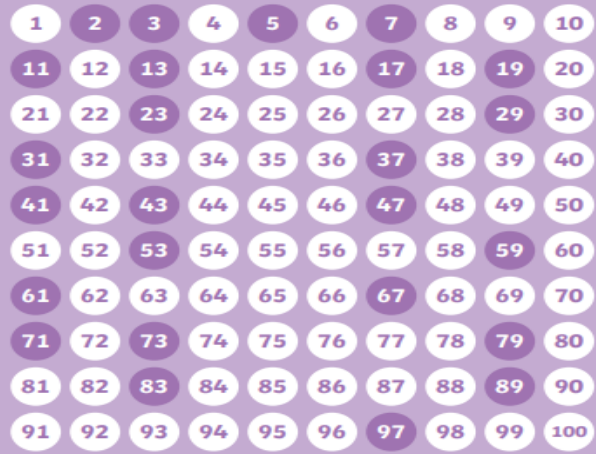
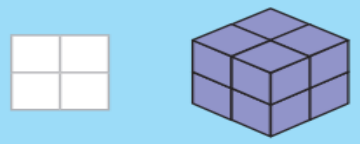
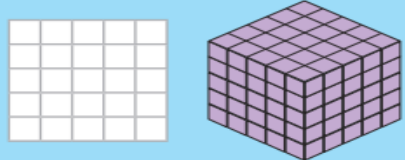


Year 5 Mathematics – Spring 1 Multiplication, Division & Fractions

Key Vocabulary	Factors	Prime Numbers										
multiply	<p>A factor is a number that divides into another number exactly, without leaving a remainder.</p>  <p>The factors of 20 are 1, 2, 4, 5, 10 and 20.</p> <p>The factor pairs are: 1 and 20 2 and 10 4 and 5</p> <p>A common factor is a factor of 2 or more numbers.</p> 											
groups of												
lots of												
times												
divide												
share												
remainder	<h3>Squared² and Cubed³ Numbers</h3>	<h3>Related Calculations</h3>										
factor			 <p>$2^2 = 4$ $2 \times 2 = 4$</p> <p>$2^3 = 8$ $2 \times 2 \times 2 = 8$</p>  <p>$5^2 = 25$ $5 \times 5 = 25$</p> <p>$5^3 = 125$ $5 \times 5 \times 5 = 125$</p>	<table border="1"> <tr> <td>$8 \times 9 = 72$</td> <td>$9 \times 8 = 72$</td> </tr> <tr> <td>$80 \times 9 = 720$</td> <td>$90 \times 8 = 720$</td> </tr> <tr> <td>$72 \div 9 = 8$</td> <td>$72 \div 8 = 9$</td> </tr> <tr> <td>$720 \div 9 = 80$</td> <td>$720 \div 8 = 90$</td> </tr> </table>	$8 \times 9 = 72$	$9 \times 8 = 72$	$80 \times 9 = 720$	$90 \times 8 = 720$	$72 \div 9 = 8$	$72 \div 8 = 9$	$720 \div 9 = 80$	$720 \div 8 = 90$
$8 \times 9 = 72$					$9 \times 8 = 72$							
$80 \times 9 = 720$	$90 \times 8 = 720$											
$72 \div 9 = 8$	$72 \div 8 = 9$											
$720 \div 9 = 80$	$720 \div 8 = 90$											
multiple												
product												

Short Multiplication

$$2543 \times 7 = 17801$$

	2	5	4	3
×				7
1	7	8	0	1
1	3	3	2	

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

Long Multiplication

$$2543 \times 67 = 170381$$

		2	5	4	3	
	×			6	7	
		1	7	8	0	1
		1	3	3	2	
1	5	2	5	8	0	
1	3	2	1			
1	7	0	3	8	1	
1	1					

Before multiplying by the number in the tens column, remember to use zero as a placeholder because the 6 in 67 is 6 tens (60).



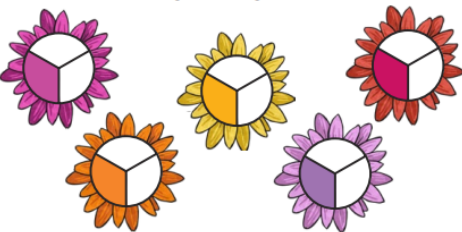
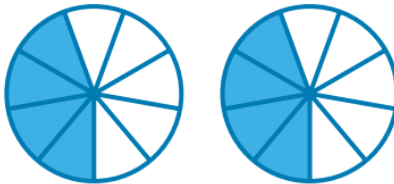
Year 5 Mathematics – Spring 1 Multiplication, Division & Fractions

Crucial Knowledge

Division	Short Division																								
$136 \div 4 = 34$																									
<table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td></td><td></td><td style="color: green;">3</td><td style="color: green;">4</td></tr> <tr><td>4</td><td>1</td><td>3</td><td>6</td></tr> <tr><td>-</td><td>1</td><td>2</td><td>0</td></tr> <tr><td></td><td></td><td>1</td><td>6</td></tr> <tr><td></td><td>-</td><td>1</td><td>6</td></tr> <tr><td></td><td></td><td></td><td>0</td></tr> </table>			3	4	4	1	3	6	-	1	2	0			1	6		-	1	6				0	
		3	4																						
4	1	3	6																						
-	1	2	0																						
		1	6																						
	-	1	6																						
			0																						
<p>→ 30×4</p> <p>→ 4×4</p>																									

Short Division																							
<table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td></td><td></td><td style="color: green;">3</td><td style="color: green;">8</td></tr> <tr><td>4</td><td>1</td><td>¹5</td><td>³2</td></tr> </table>			3	8	4	1	¹ 5	³ 2	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td></td><td></td><td style="color: green;">4</td><td style="color: green;">5</td><td style="color: green;">5</td><td style="color: green; border: 2px solid orange;">r</td><td style="color: green;">3</td></tr> <tr><td>5</td><td>2</td><td>2</td><td>²7</td><td>²8</td><td></td><td></td></tr> </table>			4	5	5	r	3	5	2	2	² 7	² 8		
		3	8																				
4	1	¹ 5	³ 2																				
		4	5	5	r	3																	
5	2	2	² 7	² 8																			
<p>$15 \div 4 = 3$ remainder 3</p> <p>Remember to regroup any remainders and move them into the next column.</p>	<p>$28 \div 5 = 5$ remainder 3</p> <p>If your calculation has a remainder, remember to record it in the answer using the letter r.</p>																						

Fractions	Key Vocabulary
numerator	mixed number
denominator	improper fraction
unit fraction	simplest form
non-unit fraction	multiple
whole	common denominator
equivalent	common numerator

Multiply Unit Fractions by an Integer	Multiply Non-Unit Fractions by an Integer									
$\frac{1}{3} \times 5 = \frac{5}{3}$ 	$2 \times \frac{4}{9} = \frac{8}{9}$ 									
Multiply Mixed Numbers by Integers										
<div style="border: 1px solid #0072bc; padding: 5px; display: inline-block;"> Convert to an improper fraction and multiply the numerator by the integer. </div>										
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">$2\frac{1}{4} \times 2$</td> <td style="padding: 5px;">=</td> <td style="padding: 5px;">$\frac{9}{4} \times 2$</td> <td style="padding: 5px;">=</td> <td style="padding: 5px;">$\frac{18}{4}$</td> <td style="padding: 5px;">=</td> <td style="padding: 5px;">$4\frac{2}{4}$</td> <td style="padding: 5px;">=</td> <td style="padding: 5px;">$4\frac{1}{2}$</td> </tr> </table>		$2\frac{1}{4} \times 2$	=	$\frac{9}{4} \times 2$	=	$\frac{18}{4}$	=	$4\frac{2}{4}$	=	$4\frac{1}{2}$
$2\frac{1}{4} \times 2$	=	$\frac{9}{4} \times 2$	=	$\frac{18}{4}$	=	$4\frac{2}{4}$	=	$4\frac{1}{2}$		
Use repeated addition.	$2\frac{1}{4} \times 2 = 2\frac{1}{4} + 2\frac{1}{4} = 4\frac{2}{4} = 4\frac{1}{2}$									



Year 5 English – Spring 1

Writing Outcome : To write a myth: to create characters (heroes, villains and monsters) and settings.



Pathways to Write keys		
Gateway keys (non-negotiables/basic skills)	↔ Mastery keys (year group national curriculum expectations)	Feature keys (vocabulary, manipulating sentences and tense, structure)
<ul style="list-style-type: none"> Use punctuation at Y4 standard correctly (full stops, capital letters, exclamation marks, question marks, commas in a list, commas after fronted adverbials, apostrophes for contraction and possession) Link ideas across paragraphs using adverbials Use of inverted commas and other punctuation to punctuate direct speech (Y4) 	<ul style="list-style-type: none"> Use expanded noun phrases to convey complicated information concisely Use relative clauses beginning with who, which, where, when, whose, that or an omitted relative pronoun Link ideas across paragraphs using adverbials Use commas to clarify meaning and avoid ambiguity in writing 	<ul style="list-style-type: none"> Vary story openings: start with dialogue, action or description Use paragraphs to vary pace and emphasis Use dialogue to move action forward Create a plot: a journey, a quest or a series of trials for the hero Create characters which behave in superhuman ways with unusual powers or strong characteristics Create a magic object which may symbolise something

Punctuation and Grammar

Non-negotiables

- Use punctuation at Y4 standard correctly (full stops, capital letters, exclamation marks, question marks, commas in a list, commas after fronted adverbials, apostrophes for contraction and possession)
- Link ideas across paragraphs using adverbials
- Use of inverted commas and other punctuation to punctuate direct speech (Y4)

Year 5 Expectations

- Vary story openings: start with dialogue, action or description
- Use paragraphs to vary pace and emphasis
- Use dialogue to move action forward
- Create a plot: a journey, a quest or a series of trials for the hero
- Create characters which behave in superhuman ways with unusual powers or strong characteristics
- Create a magic object which may symbolise something

Developing Vocabulary

Ravines - a deep, narrow gorge with steep sides.

Molten - liquefied by heat.

Embers - a small piece of burning or glowing coal or wood in a dying fire.

Townfolk - another term for townspeople

Meddler - a person who meddles in the affairs of others.

Fjord - a long, narrow, deep inlet of the sea between high cliffs, as in Norway, typically formed by submergence of a glaciated valley.

Warrior - a brave or experienced soldier or fighter.

Cauldron - a large metal pot with a lid and handle, used for cooking over an open fire.

Talon - the claw of an animal and especially of a bird of prey.

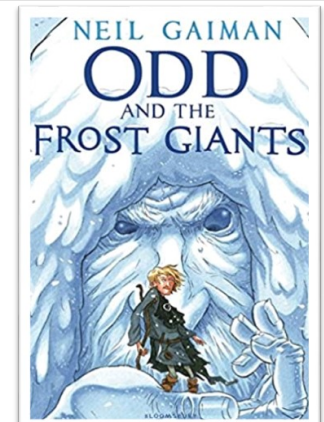
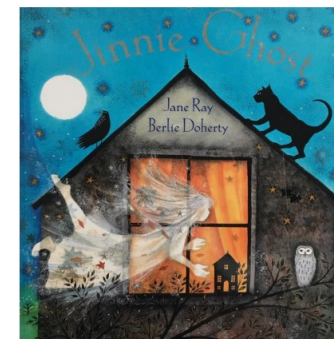
Elements - strong winds, heavy rain, or other kinds of bad weather.

Gravely - to a degree that gives cause for alarm

Ravaged - severely damaged; devastated

Realms - a field or domain of activity or interest

Additional Text covered



Year 5 Computing – Spring 1 Databases



Unit: 5.4 Databases

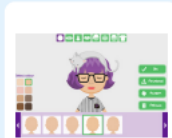
Key Learning

- To learn how to search for information in a database.
- To contribute to a class database.
- To create a database around a chosen topic.

Key Resources



2Investigate



Avatar builder

Key Vocabulary

Arrange
Sorting information in order against a search request.

Avatar
An icon or figure representing a person in a video game, Internet forum, etc.

Chart
A diagram that represents data. Charts include graphs and other diagrams such as pie charts or flowcharts.

Collaborative
Produced by, or involving, two or more parties working together.

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

Database
A set of data that can be held in a computer in a format that can be searched and sorted for information.

Field
A heading in a database record against which information is entered.

Group
Putting similar pieces of information together in a database so it is easy to read, understand and interpret.

Record
A collection of data about one item entered into a database.

Database Report
A way of producing a written paragraph that incorporates the data from the fields and records of the database.

Statistics
The study and manipulation of data, including ways to gather, review, analyse, and draw conclusions from data.

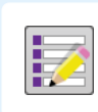
Search
A way of finding information.

Sort
Organising data by a rule such as alphabetical or numerical.

Key Images



Open, close or share a file



Design a new database



Add a record to the database



Find information in the database



Sort, group and arrange information



Statistics and reports



Represent the information as a chart

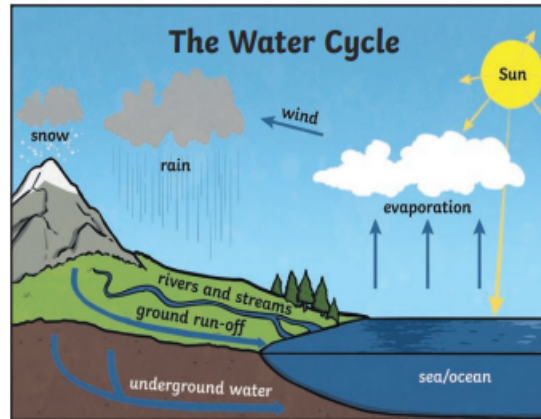


Year 5 Geography – Spring 1 Rivers



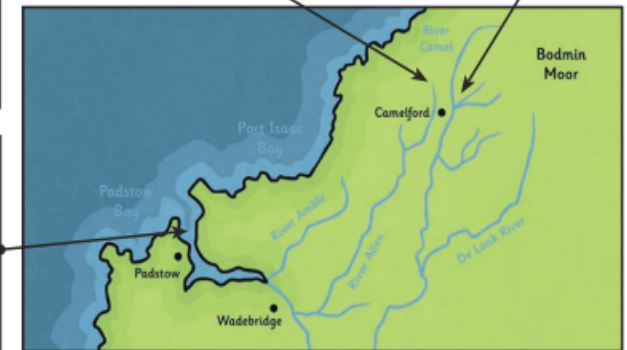
Key Vocabulary

channel	The course in the ground that a river or water flows through.
dam	A barrier built to hold back water.
deposition/ deposit	When rocks and other materials that have been eroded are dropped off further along the river.
discharge	The amount of water flowing along a river per second.
erosion	Rocks and other river materials are picked up by the water and moved to another place along the river.
mouth	The point where a river joins the sea.
source	The place where a river begins.
tidal bore	A strong tide from the coast that pushes the river against the current causing waves along the river.
tributaries	Rivers that join up with another river.
valley	A long ditch in the earth's surface between ranges of hills or mountains.



Some rivers join up with other rivers (**tributaries**). The point where they meet is called a **confluence**.

The **source** of most rivers is on high ground or in the mountains.



Rivers in England, at their **mouth**, will flow into either the: North Sea, Irish Sea, English **Channel** or Atlantic Ocean.

The Course of a River

The Upper Course

Rain falling on high ground collects in **channels** and flows downwards forming a stream. Streams run downhill and join other streams, increasing in size and speed, forming a river. The river here flows quickly and the channel has steep sides and runs through **valleys**. Features include - waterfalls and rapids.

The Middle Course

Fast flowing water causes **erosion** making the river deeper and wider. Features include - meanders.



The Lower Course

Rivers flow with less force due to being on flat land. The river **deposits** the eroded material that it has carried. Riverbanks have shallower sides. Features include - floodplains, deltas and estuaries.

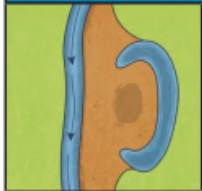
Year 5 Geography – Spring 1 Rivers

Meander - a curve in the river



Eroded materials are carried by the river and released, building up the land on the inside of the bend where the water flows more slowly.

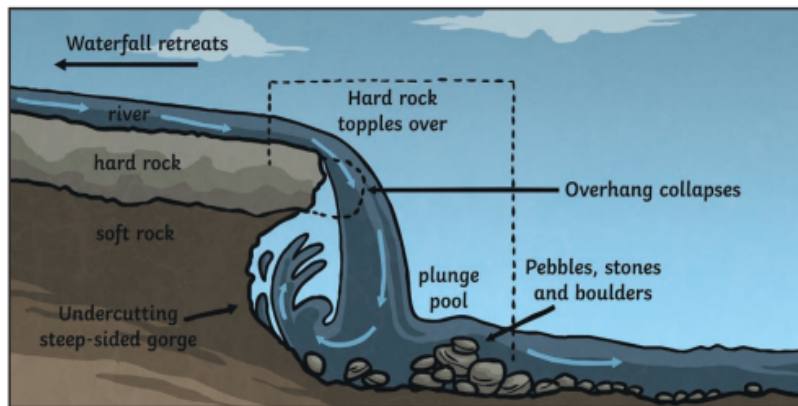
Oxbow lakes - a U-shaped lake



As meanders grow, two meanders can merge together through **erosion**. The water takes this newer, shorter course. The river **deposits** eroded materials which block off the old part of the river forming an oxbow lake.

How Do We Use Rivers?

Leisure e.g. fishing	+	Controlled population of fish
	-	May leave litter and pollute the water
Industry e.g. factories	+	Sections of rivers maintained
	-	Chemicals pollute the water and habitats
Tourism e.g. walking routes	+	Conservation and education about local wildlife
	-	Too many people near wildlife habitats



Dams

Dams are built to hold water back, usually in a reservoir.

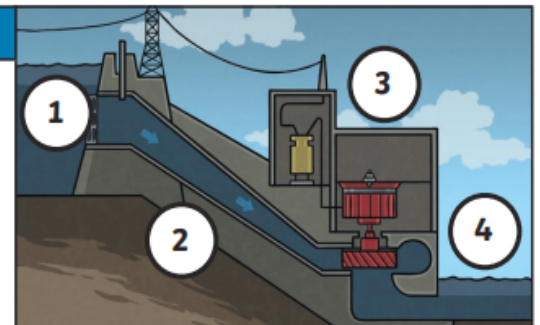
Dams might be built to:

- control the flow of a river to prevent flooding.
- generate power



Hydroelectric Power

1. Water is held behind a **dam**.
2. When needed, some of the water is released and flows through a pipe (penstock).
3. The falling water turns a water wheel (turbine) which is linked to a generator which produces electricity.
4. The water continues into the river on the other side of the **dam**.



Crucial Knowledge Art: Spring Year 5– Chinese Art



Painting, printing and colour

- I can identify some colours commonly used in Chinese art
- I can discuss and describe different brushstrokes used in artwork and how they might have been created
- I can practise a variety of brushstrokes to improve technique
- I can apply my brush control when creating artwork
- I understand the importance of line and brushstrokes in Chinese Art
- I can create Chinese calligraphy characters using the correct brushstroke sequence



- I can begin to use different paints and inks for



Drawing– line, pattern and texture

- I can use drawing and shading skills to recreate a terracotta warrior
- I can identify patterns, images and styles associated with Ming porcelain
- I can follow simple instructions to draw a Chinese dragon
- I understand that I can use construction lines to map out the basic shape of my sketches
- I can use visual information to make sketches of different styles of traditional Chinese art
- I can explain the importance of lines in Chinese art in relation to the Four Gentlemen



Responding to artwork and using a sketchbook

- I can identify and record sketches of some themes commonly used in traditional Chinese art
- I can discuss traditional Chinese artwork and say what I think and feel about it
- I understand the significance of the dragon in Chinese culture
- I can explain what the Terracotta Army is and why it is famous
- I know when the Ming dynasty was in power and why

Collage, sculpture and 3-D art

- I can attach two pieces of salt dough with the help of materials such as matchsticks to reinforce joins
- I can add pieces of salt dough to my base to create relief details
- I can use tools to create details in my salt dough or clay model
- I can carve a piece of clay to create the shape of my terracotta warrior
- I can use tools to help me shape and manipulate my clay
- I can add clay to my model to get the correct shape