Birchfield PRIMARY SCHOOL

Year 4 Curriculum Overview Term 2.2

Teaching Team:
Mr Aldred, Miss Fisher, Miss Rehman, Mr Barnes

PE Days: Thursday

Homework: Tuesday & Friday

Enquiry Question	'How do rivers and mountains change our world?'
Significant People	- William Morris - Malala Yousafzai - Dr Aarti Sehdev – Neurobiologist
Class Texts	King of the Cloud Forests 'Escaping from China as the Japanese invade, Ashely and Uncle Sung embark on a perilous journey across the Himalayas. Then Ashley finds himself alone in the hostile mountains, battling for his life. He is just about to give up all hope, when he has a mysterious and terrifying encounter.'
Reading	At the beginning of this half term, your child will continue to learn how to make comparisons about characters and settings in the book we are reading. They will then move onto comparing pieces of non-fiction. As the half term progresses, the children will recap their learning on retrieval and learn how to skim and scan the text. They will then be learning how to identify and explain how meaning is enhanced through a choice of words and phrases. To begin with, the children will look at similes, metaphors and personification and explain why the reader has used these. They will then move on to inferring the atmosphere a writer has intended to create in using these features. The children will continue to read out loud to the teacher during weekly word reading sessions.
Writing	The children will move on to writing explanation texts. The children will be learning to write formally, in an explanatory manner using paragraphs, subheadings and diagrams/captions. They will identify the features of an explanation text and write their own explanation text using the features. During this half term, the children will complete their work on poetry, writing sonnet poems about nature. They will focus on the structure of this style of poem, paying specific attention to the syllable structure and rhyming pattern.

Maths	This half term, we will continue focusing on multiplying and dividing number by a 1-digit number, we will then be moving onto fractions, learning how to count beyond 1. The children will be learning about what a fraction is, unit and non-unit fractions. They will also be learning about equivalent fractions and fractions that are greater than 1. The children will add 2 fractions and 2 or more fractions together, as well as this, they will subtract fractions and subtract fractions from whole amounts and fractions of a set of objects.
Geography	This half term, our focus will be Geography. In the Misty Mountain, Winding River project, your child will learn about what mountains are. They will learn about mountain types and mountains around the world and the UK. There will be a focus on the K2 mountain, in Asia, the second highest mountain in the world.

Science	At the beginning of the half term, our science focus will be 'States of Matter.' In this project, your child will identify and classify solids, liquids and gases. They will learn the properties of solids, liquids and gases and discover that some materials have properties of more than one state. Your child will learn that particles make up all matter and how their arrangement determines whether the material is a solid, liquid or gas. They will find that materials can change from one state to another and learn about how this change can happen. Moving into the second part of the half term, your child will continue their learning on 'Grouping and Classifying.' In this project, your child will learn why we sort and group things and the important classification skills of observing and questioning. Your child will learn what a classification key is and how they are used to identify living things. In this project, we will also be introducing the five main vertebrate groups and the six main invertebrate groups. Your child will learn how to identify vascular and non-vascular plants and sort them into three main groups.
DT	This half term we shall be beginning the 'Functional and Fancy Fabrics' topic. This project will teach your child about home furnishings and the significant designer William Morris. Your child will learn techniques for decorating fabric, including block printing, hemming and embroidery and use them to design and make a fabric sample.
Music	During their music lessons, the children will continue to learn through Charanga. The unit is called 'Stop!' This is a song/rap about bullying. This is a five-week Unit of Work that builds on

	previous learning. All the learning is focused on a rap/song about bullying. Children will learn about the interrelated dimensions of music through games, singing and composing.
Computing	This half term, your child will begin to develop their understanding of how digital images can be changed and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have and evaluate the effectiveness of their choices.
PSHE	This half term we shall complete the 'how can we help in an accident or emergency' strand of PSHE. Our lessons shall include: - How to carry out basic first aid. - How do we support someone with a head injury. - What should we do when someone is having an asthma attack or bleeding? - Seeking adult help. - Contacting the emergency services.
RE	This half term, the children will be learning how to be merciful and forgiving. Our lessons will include: - The Joseph story in Genesis 35:23 – 29 and exploring what it has to say about forgiveness. - What do Christianity and Judaism say/think about forgiveness? - What do Christians believe about forgiveness as a result of Jesus's death on the cross? During the second half of the half term, the children will be covering: responding to suffering. Our lessons will include: - What kind of things hurt people? - How do Muslims respond to the suffering of others? - The Easter Story
PE	During this half term the children will be completing Yoga and handball activities.

Please see below an overview of the main themes, knowledge and skills we will be covering this half term.

Knowledge Organiser – Stop! – Year 4, Unit 3

charanga MUSICAL SCHOOL

1 – Listen & Appraise: Stop! (Grime)

Structure: Intro and 6 rapped verses, each with a sung chorus.

Instruments/voices you can hear: Digital/electronic sounds, turntables, synthesisers, drums.

Can you find the pulse as you are listening? Dance, clap, sway, march, be an animal or a pop star.

2 – Musical Activities using glocks and/or recorders

Warm-up games play and copy back using up to 2 notes – C + D.
Bronze: no notes | Silver: C, sometimes D | Gold: C + D challenge.
Which challenge did you get to?

Singing and rapping in unison and in parts.

Compose your own rapped lyrics about bullying or another topic or theme that you decide.

3 — Perform & Share

Decide how your class will introduce the performance. Perhaps add some choreography? Tell your audience how you learnt this song and why. Record the performance and talk about it afterwards.

The performance will include one or more of the following:
Improvisations • Compositions • Rapped lyrics that you composed

About this Unit

Theme: Grime and other styles of music.

Facts/info: Stop! is a song/rap written in a Grime style for you to compose your own lyrics.

Listen to 5 pieces of music in different styles:

- Gotta Be Me performed by Secret Agent 23 Skidoo (Hip Hop)
- Radetzky March by Strauss (Classical)
- Can't Stop The Feeling! by Justin Timberlake (Pop with Soul, Funk and Disco influence)
- Libertango by Astor Piazzolla (Tango)
- Mas Que Nada performed by Sergio Mendes and the Black Eyed Peas (Bossa Nova and Hip Hop)

Vocabulary: Musical style, rapping, lyrics, choreography, digital/electronic sounds, turntables, synthesisers, drums, unison, pulse, rhythm, pitch, tempo, dynamics, texture structure, compose, improvise, hook, riff, melody, solo

Reflection

What did you like best about this Unit? Why? Was there anything you didn't enjoy about it? Why?

Did you have any strong feelings about it? Were you proud of yourself, happy or annoyed?

Birchfield PRIMARY SCHOOL

Plot

The Anderson family have moved to China to help with the sick in a small town called Ping Ting Chow.
Not long after, the country is invaded by Japan, and it is not safe to stay. Ashley, with the help of a family friend, flees to India, but they must cross the Himalayas.
Sadly, Ashley and Uncle Sung are separated, but Ashley is looked after by some creatures. Will they ever find each other again and make it to India?

Themes

- Love
- Loyalty
- Friendship
- Death
- Reunion

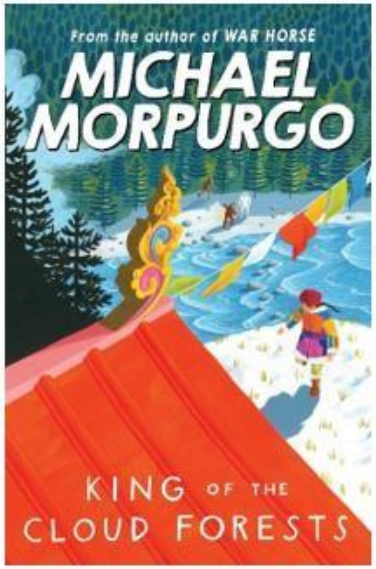
Characters

Ashely Anderson – a young boy who lives with his father in China.

Ashley's Father – a missionary helping the sick in a town called Ping Ting Chow in China.

Uncle Sung – a family friend from Tibet who helps Ashely escape China as the Japanese have invaded.

The Yetis – a community of strange creatures that befriend and help Ashley.



Key Quotes

'I see a ruler stand before me. I tell you, this boy of yours will be king and soon.'

'The creature was crouched by the fire and when he rose, his bulk filled the room. He was like a giant man but not yet a man, for he was covered in a coat of long, red hair.'

Name of book: King of the Cloud Forests

Date Published: 1987

Author: Michael Morpurgo

Genre: Adventure

Perilous	Full of danger or risk
Missionary	A place where Christians help whilst promoting the teachings of the Lord.
Bewilderment	A feeling of being confused.
Philling	The Tibetan name for foreigners
Hostility	Unfriendly behaviour towards others
Adamant	Refusing to be persuaded
Baulking	Unwilling to an accept an idea
Beseeching	Begging someone to do something
Denouement	The final part of something.
Mesmerized	Transfixed, caught their complete attention

Division Knowledge Organiser

Maths

mathematical symbols

÷	divide, shared into groups of	=	is equal to

dividing by 10

When you divide by 10, the number becomes 10 times smaller.

253 ÷ 10 = 25.3

We move the digit one place to the right.
2 hundreds ÷ 10 = 2 tens (20)

H	T	O	t
2	5	3	
	2	5	3

The 5 tens become 5 ones and we move the 3 ones into the tenths column (after the decimal point).

dividing by 100 and 1000

7500 ÷ 100 = 75

When dividing by 100, digits move two places to the right.

Th	H	T	O
7	5	0	0
		7	5

2100 ÷ 1000 = 2.1

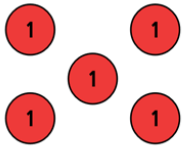
When dividing by 1000, digits move three places to the right.

Th	H	T	O	.	t
2	1	0	0	.	
			2	.	1

dividing by 1

When you divide by 1, the answer remains the same.

5 ÷ 1 = 5
5 divided by 1 = 5



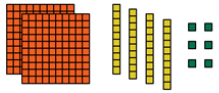
halving

Halving is the same as dividing by 2.

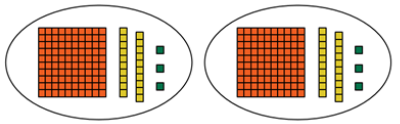
halve 246

246 ÷ 2

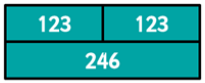
use apparatus



divide into 2 equal groups



bar model

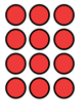


partition it

halve 246 = 123
halve 200 = 100
halve 40 = 20
halve 6 = 3

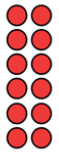
factors

Factors are the numbers multiplied together to get a given number.



Factors of 12

3 x 4 = 12
2 x 6 = 12
1 x 12 = 12



1, 2, 3, 4, 6 and 12 are all factors of 12.

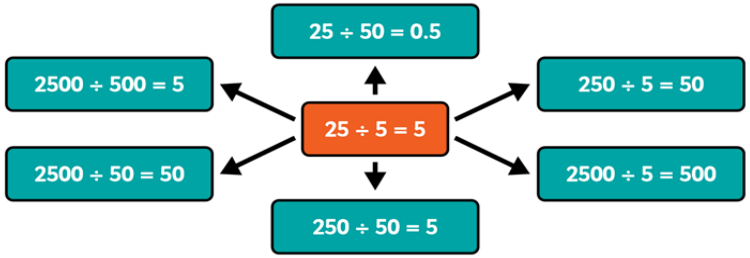
Factors also tell us which numbers that can be divided exactly into a given number.

12 ÷ 4 = 3
12 ÷ 3 = 4
12 ÷ 6 = 2
12 ÷ 2 = 6
12 ÷ 1 = 12
12 ÷ 12 = 1

mental methods

Can I work it out in my head, with apparatus or with jottings?

related facts



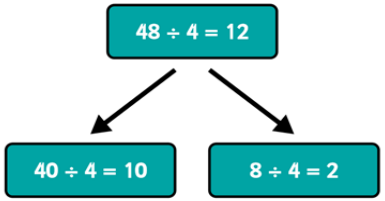
partition it

48 ÷ 4 = 12

40 ÷ 4 = 10

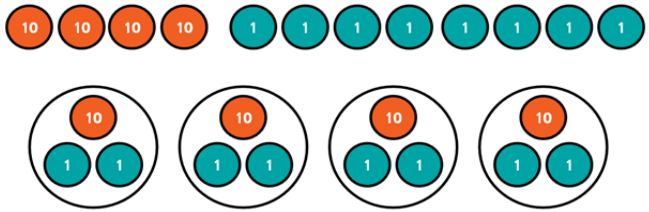
8 ÷ 4 = 2

part-whole model



use apparatus

48 ÷ 4 = 12



use your times tables knowledge

How many nines are in 81?

81 ÷ 9 = 9

1 x 9 = 9
2 x 9 = 18
3 x 9 = 27
4 x 9 = 36
5 x 9 = 45
6 x 9 = 54
7 x 9 = 63
8 x 9 = 72
9 x 9 = 81
10 x 9 = 90
11 x 9 = 99
12 x 9 = 108

How many sixes are in 48?

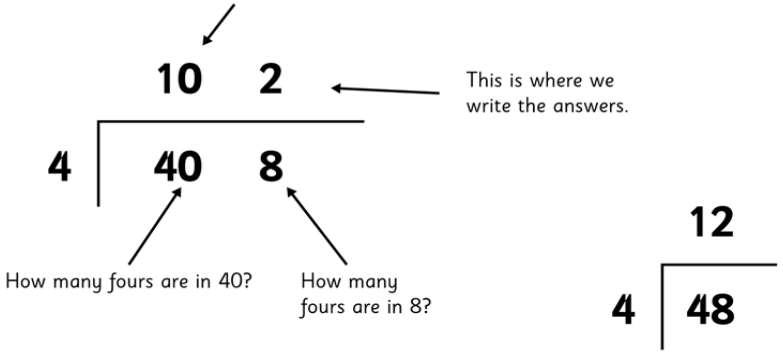
48 ÷ 6 = 8

1 x 6 = 6
2 x 6 = 12
3 x 6 = 18
4 x 6 = 24
5 x 6 = 30
6 x 6 = 36
7 x 6 = 42
8 x 6 = 48
9 x 8 = 54
10 x 6 = 60
11 x 6 = 66
12 x 6 = 72

written methods

Do I need to use a formal written method?

With this written method we start at the left column.

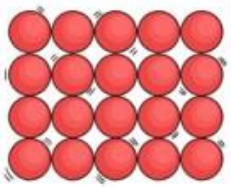


States of Matter & Grouping & Classifying Organiser

Year 4 Knowledge

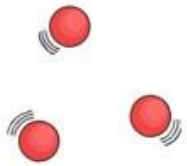
Birchfield PRIMARY SCHOOL

Subject Specific Vocabulary	
States of Matter	Materials can be one of three states: solids, liquids or gases.
Solids	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them.
Liquids	Liquids take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
Gases	Gases can spread out to completely fill the container or room they are in. They do not have any fixed shape but they do have a mass.
Particles	Particles are tiny bits of matter that make up everything in the universe. They are that tiny, we cannot see them.
Reversible	Able to be reversed so that the previous state is restored.
Irreversible	Not able to be undone or changed back to its original state.
Melt	This is when a solid changes to a liquid.
Freeze	Liquid turns into a solid during the freezing process.
Evaporate	Turn a liquid into a gas.
Condense	Turn a gas into a liquid.

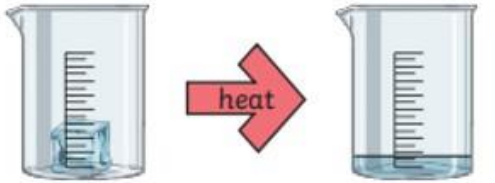


<u>Solid Particles</u>
Particles in a solid are close together and cannot move. They can only vibrate.

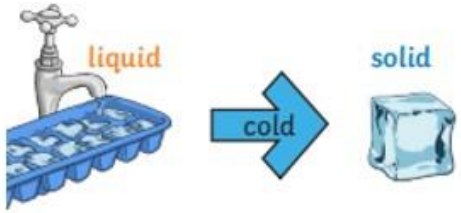
<u>Liquid Particles</u>
Particles in a liquid are slightly more spread out and can move around in small spaces.



<u>Gas Particles</u>
Particles in a gas are spread out and can move around very quickly in all directions.



If a solid is heated to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and around each other.



When freezing occurs, the particles in the liquid begin to slow down as they get colder and colder. They can then only move gently on the spot, giving them a solid structure.

Evaporation occurs when water turns into water vapour. This happens very quickly when the water is hot, like in a kettle, but it can also happen slowly, like a puddle evaporating in the warm air.

Condensation is when water vapour is when water vapour is cooled down and turns into water. You can see this when droplets of water form on a window. The water vapour in the air then cools when it touches a cool surface.

States of Matter & Grouping & Classifying Organiser

Year 4 Knowledge

Birchfield PRIMARY SCHOOL

Classification

Classification is the arrangement of living and non-living things into groups or categories. It involves breaking down a large group into smaller groups based on their observable features.

There are three types of classification: single-stage classification, multi-stage classification and serial ordering.

How Classification is Used:

Scientists use classification to put living things into groups. The science of classifying and naming living things is called taxonomy.

Classification helps scientists identify and study living things and understand the origins and evolution of a species.

Key Vocabulary:

Backbone	A column of bones in the middle of the back of vertebrate animals.
Classify	Arrange in groups or categories according to shared qualities or characteristics.
Evolution	A process where living things change some of their physical or behavioural characteristics slowly over a very long time.
Origin	Where something begins.

Types of Classification

Single-stage Classification: this involves separating a large group of objects into smaller groups based on a single property such as size.
Another type of single-stage classification involves sorting objects according to whether they have a specific property or not. E.G. 'Is it pink?'

Multi-stage Classification: involves asking repeated questions about specific properties, to sort groups into subgroups again and again until all the objects in one group are the same.

Serial Ordering: involves sorting objects into an order based on a property. For example, items of clothing could be sorted according to size, with the smallest at one end, leading to the largest at the other.

Annelid

Mollusc

Arthropod

Arachnid

Crustacean

Insect

Myriapod

States of Matter & Grouping & Classifying Organiser

Year 4 Knowledge

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Classification of Living Things

Scientists divide all living things into five kingdoms.

These kingdoms are animal, plant, fungi, protist and monerans.

We shall be covering the plant and animal kingdoms.

Animal Kingdom

All animals in the animal kingdom are classified as either invertebrates or vertebrates.

Invertebrates

Invertebrates do not have backbones. Instead, they have soft bodies or a hard outer shell or exoskeleton. They are further classified into three groups: annelid, mollusc, and arthropod. Arachnid, crustacean, insect and myriapod are four types of arthropods.

Classification Keys

Classification keys use multi-stage classification to identify living things. They work by observing a living thing then answering the yes or no questions until it is identified.

Vertebrates

Vertebrates have backbones. They are covered with skin, feathers, scales, fur, or hair.

Vertebrates are further classified into five groups.

Fish

Mammal

Amphibian

Bird

Reptile

How do rivers and mountains change our world? Year 4 Knowledge Organiser

Birchfield PRIMARY SCHOOL

Rivers

A river is a body of water that flows downhill, usually to the sea. Rivers start in mountains or upland areas and flow downstream, collecting water from small, narrow streams, springs, rainfall, or other water sources on the way to the sea.

River Features

A variety of physical features can be found along the course of a river:

Delta	A triangular piece of land at the mouth of a river that has formed because of a build-up of sediment.
Floodplain	An area of flat land next to a river that floods when the river bursts its banks.
Interlocking Spurs	Ridges that are formed when a river meanders around areas of harder rock.
Meander	A bend in a river or stream.
Oxbow Lake	A curved lake that was once a meander in a river.
V-shaped valley	A deep, straight channel that has been cut into rock by erosion.
Waterfall	A cascade of water that falls from a higher level to a lower level.

River Stages

The Upper Course:

The upper course of a river is narrow. Water flows quickly over the riverbed, carrying rocks that erode the land and create steep-sided, v-shaped valleys.

The Middle Course

The middle course of a river grows wider and deeper as the land becomes flatter. Bends called meanders form.

The Lower Course

The lower course is the widest, part of a river. The land is flat and the water flows into the sea at the river's mouth.

Uses of Rivers

Settlements have been built next to rivers for thousands of years because rivers provide essential water, food, and power for people in the past. Today, rivers provide habitats for wildlife, hydroelectric power, and water for crops. Rivers are also used for leisure activities such as canoeing, fishing and for transporting goods and people.

Changing Landscapes

Rivers, seas and oceans transform a landscape through erosion, deposition and transportation.

Erosion:

Erosion is the wearing away and removal of rock and soil by means of wind or water.

Transportation:

Transportation is when rocks and soil that have been dislodged and worn away by erosion are transported in flowing water.

Deposition:

Deposition happens when flowing water slows down. Eroded rock and soil that have been transported are left behind.

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Mountains

A mountain is a large, raised part of the Earth's surface. A mountain's highest point is called its peak or summit. Mountains are at least 610M in height. A mountain range is a chain of mountains that are close together. They are usually arranged in a line connected by ridges.

Altitudinal Zones

In mountainous areas, there are large differences in altitude. These differences mean that the climate, landscape, and oxygen levels at the bottom of a mountain can be very different from those at the top. These differences create altitudinal zones, with each zone supporting a range of different plants and animals.

Contour Lines

Contour lines are used on maps to show the topography of the land. They join places of equal height and are usually labelled in intervals of 10M. If contour lines on a map are close together the land is steep. If they are far apart, the land is flat.

Types of Mountain

Fold Mountains: form when tectonic plates collide with each other. One plate is pushed down while the other is pushed up and compressed forming folds.

Volcanic Mountains: are formed when lava, ashes and gas erupt and then cool.

Fault-block Mountains: form at plate boundaries. The earth on one side of the boundary is forced up and the other side collapses.

Dome Mountains: are the result of when magma is pushed upwards against the Earth's crust. Instead of erupting through the crust the magma cools and hardens.

Plateau Mountains: are formed when land is lifted by magma below the Earth's crust. Large, flat areas of land are forced upwards, creating a plateau.

Altitude	The height of an object or point above sea level.
Altitudinal Zone	One layer, out of many, that naturally occur in mountainous regions to form a habitat.
Collection	The process of water gathering in oceans, rivers, lakes, and streams after rainfall.
Condensation	The process of a gas or vapour cooling down and changing state into a liquid.
Contaminate	Making something poisonous or less pure.
Dredge	The clearing of the bed of an area of water by removing mud, weeds, and rubbish.
Evaporation	The process of a liquid heating up and changing state into a gas or vapour.
Plate Boundary	The place where two tectonic plates meet.
Ridge	Long, narrow sections of rocky ground that connect mountains.
Sediment	Very small pieces of sand, soil and stone that form through the process of erosion.
Topography	The physical appearance of an area of land.

Home Learning and Useful Links:

Homework Books

At the end of each week, your child will return home with their homework books in both English and Maths. They will be given two pages to complete based on the learning they have completed that week or the learning they will be doing the following week.

Please encourage your child to complete these to the best of their ability and return to school by Wednesday for them to be marked and any issues to be addressed.

Spellings

These are words your child will be using daily and will need to be familiar with. We will also be sending home words with your children that are key in Year 3 and 4. Please encourage your child to practise their spellings at the weekend and across the course of the week, as they will be tested on these at the end of each week.

Times tables

Each week, your child will receive a sheet of times tables to help prepare them for the Y4 Multiplication Check.

Please encourage your child to practise these times tables ready for a small test every Monday.

Your child should be to completing at least 5 minutes of times table practice daily.

Please use the website below

Times Table Multiplication Check Website:

https://www.timestables.co.uk/multiplication-tables-check/

Reading:

At the end of each week, your child will also come home with a reading book.

Please encourage your child to read this book regularly and listen to them read when you can.

Within their reading diary, we ask that you please make a comment on how your child has read, whether they are enjoying their book or even any questions you may have asked them and discussed about their story.

Both the reading book and reading diary need to be returned to school by Wednesday.

Reading:

Oxford Owl for School and Home

Reading and comprehension - English - Learning with BBC Bitesize - BBC Bitesize Books for Year 4 children aged 8-9 | School Reading List

Phonics:

Letters and Sounds, English Games for 5-7 Years - Topmarks

PhonicsPlay

Phase 2 Games – Letters and Sounds (letters-and-sounds.com)

Writing:

Year 4 English - BBC Bitesize

Writing in Year 4 (age 8–9) - Oxford Owl for Home

Spelling and Grammar, English Games for 7-11 Years - Topmarks

Maths:

Year 4 Maths Curriculum Toolkit | 8 & 9 Year Olds | Home Learning (thirdspacelearning.com)

Key Stage 2 Maths - Topmarks Search https://www.timestables.co.uk/multiplication-tables-check/

Science:

What are the states of matter? - BBC Bitesize

Science KS2 / KS3: Classification of organisms - BBC Teach

Home | WowScience - Science games and activities for kids

History/Geography:

The natural world - KS2 Geography - BBC Bitesize

Rivers - BBC Teach

Explore rivers - BBC Bitesize

Computing:

Is my child safe online? Parent's questions answered | Barnardo's (barnardos.org.uk)

Parents and Carers - UK Safer Internet Centre

Parental Controls & Privacy Settings Guides | Internet Matters

PSHE:

Talk PANTS & Join Pantosaurus - The Underwear Rule | NSPCC

How to make an emergency 999 call – West Midlands Ambulance Service University NHS Foundation Trust (wmas.nhs.uk)

PE:

Nutrition Based Physical Activity Games - Action for Healthy Kids

Kids Active Learning & PE at Home – Think Active