# Birchfield
PRIMARY SCHOOL

Year 2 Curriculum Overview
Term 2.1

Teaching Team:
Mrs Sperrin, Mr Chapman, Miss Bakalou
SLT: Miss Saboor

PE Days: Monday & Wednesday

Homework: Homework is set on Friday and returned by Wednesday.

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

Enquiry Question	How is life different at the seaside?
Significant People	Hilary Lister Captain James Cook
Class Texts	Dolphin Boy by Michael Morpurgo **(Themes: Kindness, Friendship, Love, Generosity, Determination, Teamwork)**
Reading	**Reading Domain:** 1d – Making inferences from the text. **Test Technique:** Extended constructed response (literal/inference). Word reading this half term will focus on prefixes, suffixes, and compound words. The children will learn how to read these words using their phonics skills and what different prefixes and suffixes mean. The children will develop their comprehension skills through inference. They will begin inferring a character's feelings based on illustrations throughout the book and then begin to look at how their thoughts and behaviour can also determine how a character feels. The children will learn how to answer inference questions through an extended response, using 'I can infer…because' as a sentence stem.
Writing	This half term, the children will be writing postcards from a seaside town. They will then move on to extend their learning of informal letters, using their whole class text, Dolphin Boy, as inspiration. They will take role of characters within the story and write about the events. Once the children have a good

	understanding of the whole class text, they will then innovate the problem and ending of the story. Throughout the half term, children will be continuing to develop their understanding of the organsational features of all the genres that they write, as well as language features. Children will be learning how to write similes that are effective and entertaining for the reader, exclamations, as well as conjunctions to extend their sentences.
Maths	At the beginning of this half term, children will learn about money. They will recognise what each coin and note represents and use the symbols for pounds and pence correctly. Children will be able to combine amounts to make a value. They will also be able to find different combinations of coins that make the same amounts of money. Children will solve real life word problems involving money and using their previous knowledge of addition and subtraction to understand giving change. Towards the end of the half term, children will be looking at multiplication and division. They will be able to recall and use multiplication and division facts for the 2,5, and 10 times tables. Children will use a range of methods to solve multiplication and division problems including: objects, arrays, repeated addition and multiplication and division facts. They will understand that multiplication of two numbers can be done in any order (commutative) and division of one number cannot. Children will recognise and

	use the inverse relationship between multiplication and division.
Geography	This term children will use maps to learn about the location of the world's seas and oceans and use keys to learn about map symbols. They will also find out about the directions on a compass. They will learn about the human and physical features of a coastline, including the effects of erosion and how to stay safe when visiting the coast. They will have the opportunity to learn about the work of the RNLI, what happened to the SS Rohilla and about the coastal town of Whitby, including how Captain Cook is linked to the town. They will research the tourism industry and consider what features make a place a successful tourist destination.
Science	During Science this half term, children will begin to develop an understanding of plant survival, including: how they grow, their parts, what they need to survive, and how different plants are found in different habitats. They will then revisit materials, again looking at their properties and how these are favourable, or unfavourable, for certain purposes. They will also learn how some materials are degradable and are able to be recycled, but others take many years to break down on landfill sites. They will further develop an ability to ask scientific questions, predict, and conclude through practical experiments.
Art	This half term will teach children about the visual elements of <u>flowers</u>, including shape, texture, colour, pattern and form. They will explore various artistic methods, including

	drawing, printmaking and 3-D forms, such as using paper and clay.
Music	This half term, children will be exploring the song 'I wanna play in a band' which is a rock song by Joanna Mangona. Children will identify instruments within the song which are: keyboard, drums, bass, electric guitar, and singers. Children will continue learning how to find the pulse and keeping in time with the music. Children will be exposed to a new style of music, rock. They will spend time using instruments to play simple rhythms choosing from the notes F + G or F, G + A.
Computing	During computing our focus will be 'Robot Algorithms'. This unit develops learners' understanding of instructions in sequences, and the use of logical reasoning to predict outcomes. Learners will use given commands in different orders to investigate how the order affects an outcome. They will also learn about design in programming. They will develop artwork, and test it for use in a program. They will design algorithms and test these as programs whilst also learning how to debug them.
PSHE	This half term Year 2 will be looking at 'What jobs do people do?' and exploring the theme of living in the wider world. Children will understand how jobs help people earn money to pay for things they need and want. They will learn about a range of different jobs and how people have different strengths that enable them to do different jobs. They will understand how people use the internet and digital devices in their jobs and everyday life.

		The children will also be exploring our school value 'curiosity'. They will reflect on what this is, who in our lives shows curiosity, and how we can be curious.
	RE	At the beginning of this half term children will be looking at the theme of 'creating unity and harmony.' They will have the chance to look at different religions including Christianity and Islam and understand we can get on with people who are different to us and how we should treat everybody the same. Towards the end of this half term, children will look at the theme of 'participating and willing to lead.' They will understand how they can take part and explore how Christians work together in Churches.
	PE	Within every P.E unit, all pupils develop their physical, social, emotional and thinking skills. **Gymnastics** This half term, the children will explore and develop basic gymnastic actions on the floor and using apparatus. They will develop the gymnastic skills of jumping, rolling, balancing and travelling. Once they are confident with this, they will then combine different forms of travel to create sequences for their routine. The children will develop an understanding of creating entertaining routines that include a variety of gymnastics shapes at different levels and directions. Throughout the unit of work, the children will be taught how to work safely with their peers and the apparatus that they use. They will also learn how to give

	back constructive but respectful feedback to their peers based on their performances.
	<u>Yoga</u> This half term, the children will also take part in yoga lessons. They will learn the importance of yoga and the benefits it has on their body and mind. The children will learn a variety of yoga poses. Throughout this unit of work, the children will build strength, flexibility, and balance. The children will also be taught breathing techniques through meditation and the use of stories and imaginative activities. The children will have the opportunity to work independently and with others. This will develop social and emotional skills as they work together to create yoga poses based on a theme or idea.

Knowledge Organiser:

Enquiry

How is life different at the seaside?

United Kingdom
The United Kingdom (UK), is a union of four countries. These are England, Northern Ireland, Scotland and Wales. The UK is part of the continent, Europe and is surrounded by four seas and oceans. There are the Atlantic Ocean, English Channel, Irish Sea and North Sea.

7 Continents
The world is split into 7 continents. These are (from largest to smallest):
-Asia
-Africa
-North America
-South America
-Antarctica
-Europe
-Australia

5 Oceans
An ocean is a large body of salt water. The ocean covers 70% of our world. The 5 oceans are (from largest to smallest):
-Pacific
-Atlantic
-Indian
-Southern
-Arctic

Coastal Features

Physical features
These are naturally formed. Humans haven't made them. Rain, wind and the sea and change physical features over time.

Human features
Human features are those that have been made by humans. There are many human features on the coastline such as shops, roads and piers.

Erosion
Erosion is a natural process where materials, such as rock, sand and soil, are moved from one place to another. As waves crash against the coastline, they break off, or erode, tiny pieces of rock. Over time the coastline is worn away. Sea defences, such as sea walls and lines of large rocks, called rip-rap, are put at the bottom of cliffs to stop erosion.

Maps
Maps are used to help people find their way from one place to another or find out where different places are. Physical and human features are marked on a map with symbols.

Map symbols
Map symbols can be interpreted by a key.

Symbol		Symbol	
abbey		lifeboat station	
beach		lighthouse	
bridge		parking	
building		picnic site	
bus station		pier	
castle		place of worship	
cave		public toilet	
cliff		railway station	
footpath		railway track	
forest		road	
information		viewpoint	

Compass points
People can use a compass to navigate their way. There are 8 compass points in total: North, Northeast, East, Southeast, South, Southwest, West, Northwest.
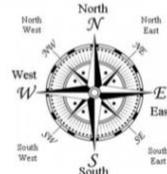
How is life different at the seaside?

Key Vocabulary	Definition
Human feature	Something that has been made by humans.
Physical feature	Something that is naturally formed.
Erosion	It is the wearing away of the land by forces such as water, wind and ice.
Coastline	The place where the land meets the sea.
Compass	An instrument used for showing direction
Continent	A large solid area of land.
Ocean	A large body of salt water.
Key	A code to understand parts of a map. They use symbols, colours or lines to represent places or landmarks on a map.
Map	A drawing of all or part of the Earth's surface.
RNLI	Royal National Lifeboat Institution.
Lifeguard	A person on the beach or at a pool who shows people how to stay safe and stops accidents from happening.
Volunteer	Someone who spends some of their free time helping others

Dangers at the coast
The coastline can be dangerous place. It is important to stay safe and know what to do in an emergency.

DANGER UNSTABLE CLIFF KEEP OFF
Look for warning signs, follow advice and do not take risks.

Never go near water alone. Make sure an adult is with you.

Do not use inflatable toys or airbeds in the sea when a wind sock is blowing.

Red and yellow flags mean it is safe to swim.

Black and white flags mean it is safe for surfing, not for swimming.

Red flags mean danger. It is not safe to swim.

Check the weather forecast for bad weather.

Use safety equipment, such as a life jacket.

Call 999 in an emergency. Ask for the coastguard and they will call for the lifeboat.

Weston-super-Mare
Weston-super-Mare is a town in Somerset, England. Although there is evidence that people have lived in the town since the Iron Age, it was still a small village until the 19th century where it became a seaside attraction. Every year, many people visit this seaside town. There are lots of human features such as the Grand Pier, Wells Cathedral, Weston Sky Wheel and Weston Museum. There are also physical features such as the beach and Bishop's Gardens.

Hilary Lister
Hilary Lister was born 3rd March 1972 in Hampshire. She had an active life and was the captain of the school's hockey and netball team. When she was 11 she started to have symptoms of reflex sympathetic dystrophy and by 15 she was in a wheelchair. Hilary Lister is most famous for her world-breaking record, being the first disabled woman to sail around the UK. Her disability meant that she was unable to move her body from the neck down. In order to sail the boat she used "sip and puff" technology (breathing in and breathing out). One straw controlled the tiller (direction of the boat) and the other controlled the winches (letting the sails in or out). The straw that she was not using at the time, would be covered by her tongue. During her journey, she struggled to breathe but she did not want to stop because she wanted "able-bodied people to rethink their views on disabled people". Sadly she died 18th August 2018.

RNLI
The Royal National Lifeboat Institution, or RNLI, is a charity that saves lives at sea. There are 238 RNLI lifeboat stations around the UK coastline. Each station has boats and special equipment that the crew use to help people in trouble in the water. Over 8000 people are helped by BNLI volunteers every year.

Hilary Lister

Science

Plant Survival

Plants are living things that change with the seasons. They grow in different habitats.

Cacti grow in a desert habitat, and daisies grow in a meadow habitat

Plant Parts

A plant has different parts. These include roots, a stem and leaves. Some plants have flowers and fruit, such as the cucumber plant.
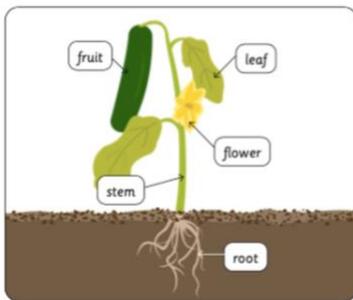
Trees

Trees are plants. They have roots, a stem called a trunk, bark, branches and leaves.
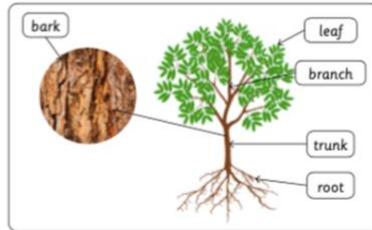
Trees can be deciduous or evergreen. Deciduous trees lose their leaves in autumn and have bare branches in winter. Evergreen trees shed old leaves and grow new leaves all year round, which means they keep their leaves in winter.

Deciduous trees in winter

Evergreen trees in winter

Leaves

Leaves come in different shapes and sizes. They make food for the plant.

Bulbs

Some plants grow from bulbs. A bulb contains a tiny plant and all the food the plant needs to grow.

Seeds

Some plants grow from seeds. A seed is a small object that a plant makes. It contains a tiny, young plant and a store of food that the plant needs to start growing before it can make food from sunlight.

Germination

Germination is the first stage of plant growth when a seed starts to grow.
Seeds need warmth and water to germinate. Seeds do not need light to germinate because they start to grow underground in the dark. The food stored inside the seed helps it to start growing.

Some time after germination, a shoot appears above the soil. The shoot develops into a stem and leaves. The leaves unfold and start to make food for the growing plant. The plant uses its roots to take in nutrients and water from the soil. The plant grows bigger over time. Some plants develop flowers and fruit.

What plants need to grow:

sunlight to make food. In shady places, plants grow slowly.
warmth to help them make food and grow quickly.
nutrients to help them grow well and fight diseases. Nutrients are taken from the soil through the roots.
water through their roots. The water carries nutrients around the plant.
air to make food, as they take in carbon dioxide in through their leaves.
space to grow. If an area is overcrowded, the nutrients and water in the soil are used up. Overcrowding also blocks sunlight.

A healthy tomato plant

An unhealthy tomato plant

Unusual Plants

Not all plants need the same things to grow well. Some unusual plants in the world have developed ways to survive in their habitats. Reindeer moss survives in cold polar habitats. It is inactive for long periods of time to save energy.

Glossary

Germinate: when a seed starts to grow.
Habitat: the place where a plant or animal lives, such as a woodland or desert.
Season: One of the four periods of the year, including winter, spring, summer and autumn.

MATERIALS!

PROPERTIES

- absorbent
- not absorbent
- opaque
- transparent
- bendy
- not bendy
- rough
- smooth
- hard
- soft
- stretchy
- not stretchy
- strong
- not strong
- waterproof
- not waterproof

Object: chair legs
Material: metal
Properties: Strong and not bendy so the legs won't bend or collapse when a person sits down.

Object: chair seat
Material: plastic
Properties: Strong and waterproof so the seat won't break when sat on, and any spills can be wiped off.

Reduce, Reuse, Recycle!

There are three ways we can save the Earth's natural resources.

Reduce the number of objects we buy and the amount of packaging we use. Reuse items like carrier bags and envelopes. Recycle as much waste as possible

bending

stretching

twisting

squashing

MATERIALS

wood

rock

paper

metal

glass

fabric

baked clay

plastic

Glossary	
Absorbent	an absorbent material easily soaks up liquid.
Opaque	an opaque material stops light from travelling through it, so you cannot see through it
Transparent	A transparent material allows you to see through it.
Waterproof	a waterproof material does not let water pass through it.

transparent vase

stretchy elastic

soft fabric

absorbent sponge

Maths

Maths Knowledge Organiser – Multiplication & Division

Topic Coverage

Multiplication & Division
· Recall and use multiplication and division facts for the 2, 5, and 10 times tables, including recognising odd and even numbers.
· Calculate mathematic statements involving multiplication and division and write them using multiplication sign, division sign and equals sign.
· Solve problems involving multiplication and division (using materials, arrays, repeated addition and multiplication/division facts.)
· Show that multiplication of two numbers can be done in any order (commutative) and division of one number cannot.

Key Vocabulary

Groups	A set.
Equal groups	Same number in each set.
Lots of/groups of	Number of.
Arrays	A set of numbers or objects arranged in rows and columns.
Repeated addition	Addition using the same number e.g. 3 + 3 + 3 = 9.
Multiplication	Adding a number to itself a specified number of times.
Division	Sharing into equal groups.
Times table	Counting in steps of the same number e.g. 2 times tables is counting up in 2s.
Commutative	Solving a number sentence in any order (only with multiplication e.g. 2 X 5 = 10 and 5 X 2 = 10).
Inverse operation	The opposite operation (inverse of X is ÷ and inverse of ÷ is X).

Recall and use multiplication and division facts for the 2, 5, and 10 times tables, including recognising odd and even numbers.

Show that multiplication of two numbers can be done in any order (commutative) and division of one number cannot.

Commutative Law
Multiplication can be solved in **ANY** order. You are able to swap the numbers around (this is the same as addition). Division does not follow commutative law because the bigger number must always come first (like subtraction).

Examples:

2 X 10 = 20
10 X 2 = 20

5 X 8 = 40
8 X 5 = 40

10 X 6 = 60
6 X 10 = 60

2 X 7 = 14
7 X 2 = 14

Important Vocabulary

6 x 4 = 24
Factor Factor Product

24 ÷ 6 = 4
Dividend Divisor Quotient

Calculate mathematic statements involving multiplication and division and write them using multiplication sign, division sign and equals sign.

Multiplication

2 equal groups of 4

4 rows of 10
10 columns of 4

4 X 10 = 40
10 X 4 = 40

6 equal groups of 5

3 rows of 6
6 columns of 3

3 X 6 = 18
6 X 3 = 18
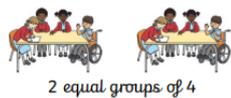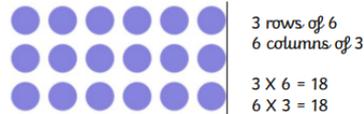
Division
First look at what the divisor is (how many it is being divided by) and draw the correct number of circles. Then, share the dividend (the bigger number) equally between the circles drawn.

10÷2 = 5

20 ÷ 5 = 4

9÷3 = 3
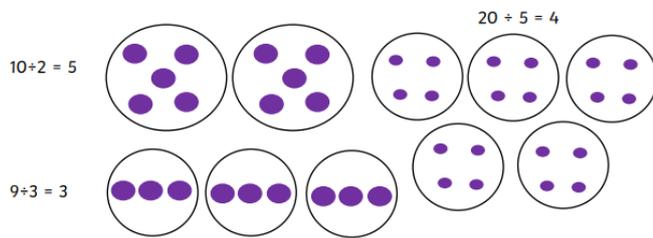
Inverse operations

The inverse operation for multiplication is division and the inverse operation for division is multiplication. Multiplication and division families work similar to fact families for addition ad subtraction. Look at the following examples:

5 X 2 = 10	6 X 3 = 18	5 X 3 = 15	4 X 10 = 40	2 X 8 = 16	4 X 5 = 20
2 X 5 = 10	3 X 6 = 18	3 X 5 = 15	10 X 4 = 40	8 X 2 = 16	5 X 4 = 20
10 ÷ 5 = 2	18 ÷ 6 = 3	15 ÷ 5 = 3	40 ÷ 4 = 10	16 ÷ 8 = 2	20 ÷ 4 = 5
10 ÷ 2 = 5	18 ÷ 3 = 6	15 ÷ 3 = 5	40 ÷ 10 = 4	16 ÷ 2 = 8	20 ÷ 5 = 4

Repeated addition

2 + 2 + 2 (4 2s)
4 X 2
= 8 apples

4 + 4 (2 4s)
2 X 4
= 8 apples

2 + 2 + 2 + 2 + 2(5 2s)
5 X 2
= 10 cookies

5 + 5 (2 5s)
2 X 5
= 10 cookies
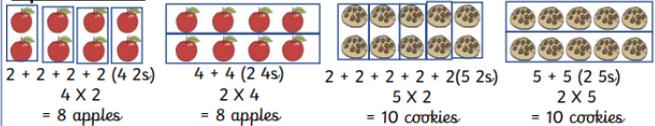
Word problems
Always underline key information

7. Sam has 6 packets of biscuits. Each packet has 10 biscuits in it. How many biscuits are there altogether?

6 X 10 = 60
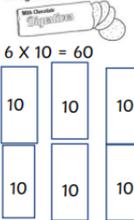
5. Six people came to the show and they paid £5 each. How much were the ticket sales altogether?

6 X 5 = 30
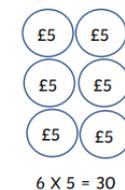
8. A machine making sweets puts 10 in each packet. If the machine has produced 70 sweets, how many packets can it fill?

70 ÷ 10 = 7
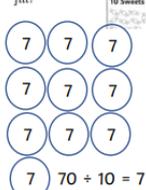
7. Sam is sharing biscuits between himself and his four brothers. If there are 25 in the pack how many will they each get?

25 ÷ 5 = 5

Maths Knowledge Organiser - Money

Topic Coverage

Money
- Recognise and use the symbols for pounds and pence.
- Combine amounts to make a value.
- Find different combinations of coins that equal the same amounts of money.
- Solve simple problems in a practical context involving addition and subtraction of money of same unit, including giving change.

Important information
- If a value contains pounds and pence you do not need to write pence at the end e.g **£2.87** instead of **£2.87p**
- When a value contains pounds and pence a decimal is used to separate them e.g **£6.68** is **£6** and **68p**.
- There are 100 pennies in one pound.

Recognise and use the symbols for pounds and pence.

Coins
- £2 – Two pound
- £1 – One pound
- 50p – Fifty pence
- 20p – Twenty pence
- 10p – Ten pence
- 5p – Five pence
- 2p – Two pence
- 1p – One pence

Notes
- £50 – Fifty pound
- £20 – Twenty pound
- £10 – Ten pound
- £5 – Five pound

Combine amounts to make a value.

50p+20p+10p +2p+2p=84p

£1+10p+10p +2p+2p+2p+ 2p=£1.28

£5+£1+£1+50p +10p+10p+2p= £7.72

Find different combinations of coins that equal the same amounts of money.

Key Vocabulary

Amount	The cost of **all** items you would like to buy.
Total	
Altogether	
Spend	Buying something – Giving the shopkeeper money.
Pay	
Price	How much an item is.
Cost	
Change	The money returned after paying for something with more money than it costs.
Value	What an item is worth
Calculate	To work out.
Note	Made from paper or plastic – Bigger value compared to coins.
Coin	Small and made from metal – Smaller value compared to notes.
Pound	One hundred pennies.
Pence	One penny (smallest value).

Solve simple problems in a practical context involving addition and subtraction of money of same unit, including giving change.

Addition - Calculating total (one-step problem)

50p+40p = 90p

55p+15p = 70p

54p+40p +5p= 99p

Jim buys a bouncy ball for 44p and a yo-yo for 50p. How much will it cost altogether? **94p**

50p+44p = 94p

Josh buys a a pencil case for 79p and a rubber for 12p. How much will he pay the shopkeeper? **91p**

79p+12p = 91p

Subtraction – Calculating change (one-step problem)

30p-25p = 5p

£1 = 100p
100p-87p = 13p

25p-21p = 4p

55p-54p = 1p

Sam buys a packet of crisps for 60p and pays the shop keeper £1. How much change will Sam get? **40p**

£1=100p
100p - 60p = 40p

Ayesha buys a pencil for 13p and pays the shop keeps 20p. How much change will Ayesha get? **7p**

20p - 13p = 7p

Addition and Subtraction – Calculating total and change (two-step problem)
James buys a rubber for 25p and a sharpener 40p. He pays **with a £1.00 coin**. How much change does he receive?
First calculate total – 40p + 25p = 75p
Then calculate change = £1 (100p) – 75p = **25p**

Addition and Subtraction – Calculating total and change (two-step problem)
Rose buys a a chocolate for 10p and a packet of boiled sweets for 17p. He pays **with a 50p coin.** How much change does he receive?
First calculate total – 17p+10p = 27p
Then calculate change = 50p-27p= **23p**

Home Learning and Useful Links:

Home Learning

Create a model that represents a human or physical feature of a seaside town.

Designing and creating a Punch and Judy inspired puppet show.

Research Hilary Lister in preparation for a non-chronological report at school.

Creating a poster on Weston-Super-Mare and what people can do there.

Useful links

https://rnli.org/find-my-nearest/lifeboat-stations

https://www.bbc.co.uk/history/historic_figures/cook_captain_james.shtml

https://www.ducksters.com/biography/explorers/captain_james_cook.php

https://www.youtube.com/watch?v=Y1nR2EDt0YE

https://www.visit-westonsupermare.com/