Birchfield PRIMARY SCHOOL

Year 2 Curriculum Overview
Term 2.1

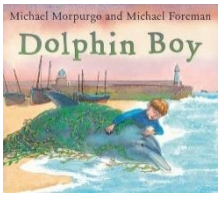
Teaching Team:
Miss Nguyen, Miss Naz, Miss Mazar
SLT: Mrs Sperrin

PE Days: Monday & Wednesday

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

Reading books are given to children every Monday.

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

Enquiry Question	What do I know about our world?
Significant People	Woni Spotts
Class Texts	Dolphin Boy by Michael Morpurgo ***(Themes: Kindness, Friendship, Love, Generosity, Determination, Teamwork).*** 
Reading	This half term, the children will continue to practise their fluency and accuracy when reading age-appropriate texts as automatic decoding is established. The children will continue to develop their comprehension skills through the following domains- retrieval, sequencing and inference.
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 organisational 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, the children will develop their geographical knowledge by identifying and naming the seven continents and five oceans of the world. They will locate and name different countries within each continent and learn about the threats facing our oceans due to human activity. The children will explore what 'human activity' means and

	describe ways it can cause damage to our oceans, while also discussing how we can help protect them. Additionally, they will learn to identify the features of a coast by using aerial photographs and maps to recognise both physical and human features. This learning will help develop their understanding of our world and the importance of taking care of it.
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 flowers, 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. **<u>Ball Skills</u>** This half term, the children will focus on developing and combining dribbling, passing, and receiving skills and using their feet to maintain control and possession of the ball. Children will progress from practicing individual skills to applying them as a team, aiming to keep possession and to score points. **<u>Gymnastics</u>** In P.E, the children will also explore and develop their gymnastics skills by creating and linking movements using different movements and actions on the floor and apparatus. The children will then progress to creating their own sequences and performing them in front of their peers.

Knowledge Organiser:

Science

PROPERTIES

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

MATERIALS


wood


rock


paper


metal

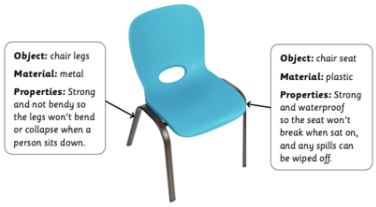

glass


fabric


baked clay


plastic

MATERIALS!



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

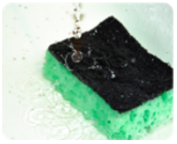
Glossary	
Absorbent	an absorbent material easily soaks up liquid.
Opaque	an opaque material stops light from travelling through it, so you cannot see through it
Transparent	A transparent material allows you to see through it.
Waterproof	a waterproof material does not let water pass through it.

transparent vase

stretchy elastic

soft fabric

absorbent sponge



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.

Maths

Maths Knowledge Organiser – Multiplication & Division

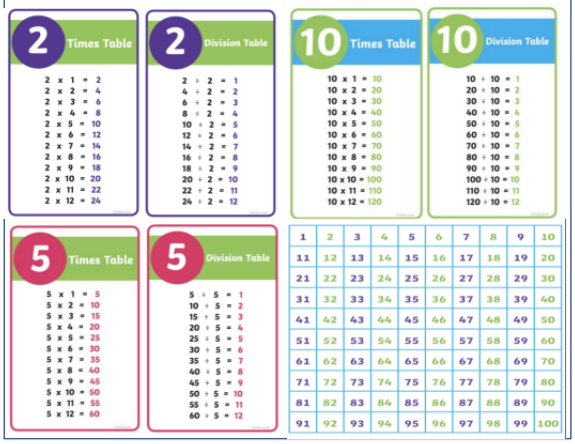
Topic Coverage

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.



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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.

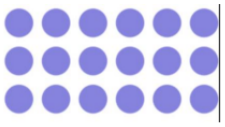
Multiplication

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

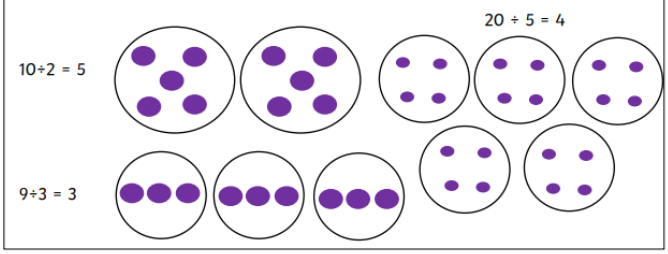


3 rows of 6
6 columns of 3

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.



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

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

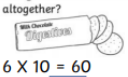
2 + 2 + 2 + 2 + 2(5 2s)
5 X 2
= 10 cookies

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

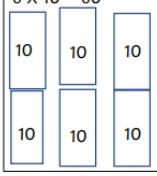
Word problems

Always underline key information

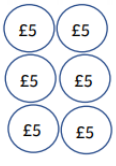
7. Sam has 6 packets of biscuits. Each packet has 10 biscuits in it. How many biscuits are there altogether?



6 X 10 = 60

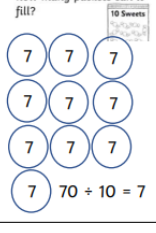


5. Six people came to the show and they paid £5 each. How much were the ticket sales altogether?



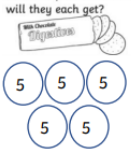
6 X 5 = 30

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

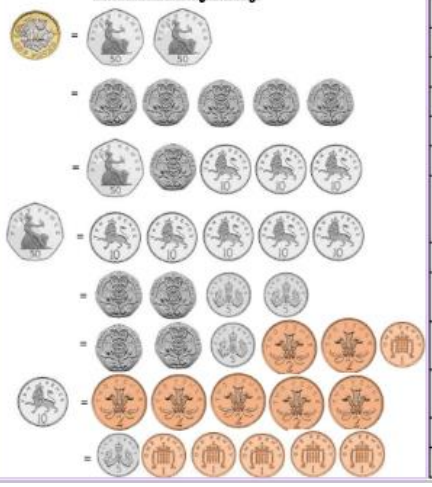
Combine amounts to make a value.

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

£1+10p+10p +2p+2p+2p+ 2p=£1.28

£5+£1+£1+50p +10p+10p+2p= £7.72

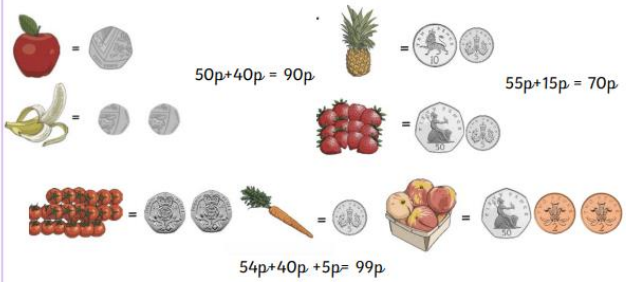
Find different combinations of coins that equal the same amounts of money.



Key Vocabulary	
Amount, Total, Altogether	The cost of **all** items you would like to buy.
Spend, Pay	Buying something – Giving the shopkeeper money.
Price, Cost	How much an item is.
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

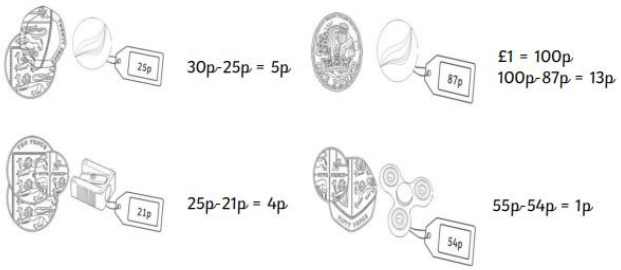
Jim buys a bouncy ball for 44p and a yo-yo for 50p. How much will it cost altogether? **94p**

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

Create a fact file on Woni Spotts.

Create a poster on the oceans and the continents of the world.

Sketch different types of flowers in your environment (garden, park etc)

Useful links

https://www.google.co.uk/intl/en_uk/earth/

https://www.ncetm.org.uk/in-the-classroom/national-curriculum-resource-tool/?topic=1563&year=1450

https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/zkp2jsg

https://www.bbc.co.uk/bitesize/topics/zsrfvwx/articles/zd9w8hv

https://www.bbc.co.uk/bitesize/topics/zsrfvwx/articles/z62txbk

https://www.youtube.com/watch?v=9Dzuu9DVv5M

https://www.youtube.com/watch?v=5qJAEudN-Yk

https://www.natgeokids.com/uk/