Birchfield PRIMARY SCHOOL

Year 3 Curriculum Overview
Term 2.1

Teaching Team:

Class Teachers: Miss Coughlan, Miss Payne and Miss Braham

Teaching Assistant: Mrs Aftab

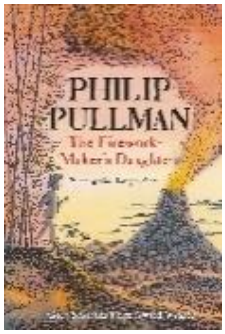
SLT: Mrs Sperrin

PE: PE lessons are on **Wednesday.**

On these days, children must be wearing their P.E kits. This includes a white t-shirt, black bottoms and trainers. No jewellery is to be worn on PE days; parents must remove this before bringing their child to school on these days.

Homework: Atom Learning, set on a Friday.

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

Enquiry Question	How does the River Nile affect Egypt?
Significant people	**Mary Anning (1799–1847)** was an English fossil collector, dealer, and self-taught palaeontologist who made significant contributions to the understanding of prehistoric life during the early 19th century. Mary Anning is best known for her discoveries of marine reptile fossils, including the first complete Ichthyosaur skeleton in 1811 and the first British Plesiosaur in 1823. Despite facing challenges as a woman in a male-dominated scientific community, her work laid the foundation for advancements in palaeontology and contributed to our understanding of extinct species and the history of life on Earth.
Class Texts	**The Firework Makers Daughter** **by Phillip Pullman** 
Reading	**We will be covering the following reading domains:** 2a – give/ explain the meaning of words in context. 2b – Retrieve and record information / identify key details from fiction and non-fiction. 2d – Make inferences from the text / explain and justify inferences with evidence from the text. 2e – Predict what might happen from details stated and implied. The children will develop these skills using the class text, the Firework Makers Daughter. This will be completed through a variety of different style questions.

Writing	In writing, we will be looking at **poetry**, **character description, setting description** and **narrative**, using our class text 'The Firework Makers Daughter.' The children will use a range of organisational skills and language features including, writing in paragraphs, alliteration, onomatopoeia, five senses and fronted adverbials.
Maths	In Maths we will continue learning about **multiplication and division,** focusing on using written methods to calculate answers. We will also be looking at **length and perimeter.** We will be looking at measuring lengths in metres (m), centimetres (cm) and millimetres (mm). We will measure, compare, add and subtract lengths. As well using our knowledge to find out the perimeter of simple shapes.
Science	In Science, we will be looking at the topics **forces and magnets**, and **plants**. The children will learn what a force is, frictional forces and force meters. In the topic of plants, the children will learn and identify the functions of each part of a plant, including, stem, root and leaves.
Geography	In geography, we will be looking at the topic **rivers and climate.** The children will learn how to understand and explain different climates and recognise how a country's location will affect its climate. They will learn how to identify and locate significant rivers, both locally and globally. Also, the children will recognise the parts of a river and how land use changes along its course. Additionally, the children will compare localities within the same country and explore how land use has evolved over time.
Art	The children will be completing a project called 'Ammonite'. This project teaches and supports the children in developing their artistic techniques used in **sketching**, **printmaking** and **sculpting**.
Music	This half term, children will be exploring the song **'Three Little Birds by Bob Marley'** and the **Reggae** music genre. The children will identify the musical instruments, styling, artists, and songs within the Reggae genre. They will look

	at finding the pulse of a song and learning the lyrics in order to perform the song. The children will also be given the opportunity to further develop their recorder skills by playing along to the song. They will be introduced to you and using musical vocabulary such as pulse, rhythm, pitch, tempo, and dynamics.
Computing	The children's computing lessons will look at the concept of **sequencing in programming** through Scratch. It begins with an introduction to the programming environment, which will be new to most learners. They will be introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences. The final project is to make a representation of a piano.
PSHE	In PSHE, children will be focus on the key question **'What are families like?'** They will learn about different family structures, similarities and differences in families from a variety of cultures and religions and how people within families care for each other.
RE	In RE, our focus is **'Being fair and just'** and '**Being accountable and living with integrity.'** This will be explored by looking at the religious practices of a variety of religions.
PE	The children will cover **dance** and **dodgeball** throughout this half term. In **dance**, pupils will create dances in relation to an idea. They will work individually, with a partner and in small groups, sharing their ideas. They will also develop their use of counting and rhythm. The children will learn to use canon, unison, formation and levels in their dances; and will be given the opportunity to perform to others and provide feedback using key terminology. In **dodgeball**, pupils will improve on key skills used in dodgeball such as throwing, dodging and catching. They will learn how to apply simple tactics to outwit their opponents. Children will be given opportunities to play

	games independently and will be taught the importance of being honest whilst playing to the rules.

Knowledge Organiser: Class Text

Book Knowledge Organiser - Firework Maker's Daughter by Philip Pullman

Important Information

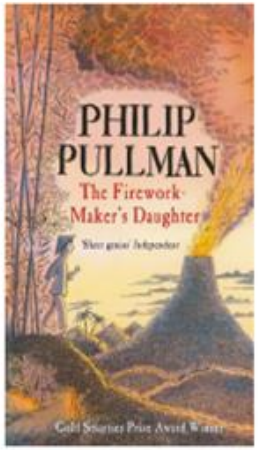
Plot
The book tells the story of Lila disagreeing with her father and making the journey to get Royal Sulphur from Razvani the Fire Fiend at Mount Merapi, as all aspirant firework-makers must do.

Themes
Talent, courage, **resilience**, good fortune, **determination** and **ambition**

Setting
The Firework Makers Daughter is set in Indonesia.

Characters

Lila	The daughter of Lalchand and the main character. She has big dreams of becoming a firework maker.
Lalchand	Lila's father, the firework maker. He believes this is an unsuitable job for girls.
Hamlet	A talking white elephant.
Chulak	The white elephant's carer and Lila's best friend.
Razvani	A fire-fiend who lives in the heart of a volcano.
Rambashi	Leader of pirates, Chulak's uncle and lead singer of *Rambashi's Melody Boys*.
The King	The ruler and owner of the white elephant.
Dr Puffenflasch	A German firework maker.
Signor Scorcini	An Italian firework maker.
Colonel Sam Sparkington	An American firework maker.



Name of Book: Firework Makers Daughter
First Published: 1995
Author: Philip Pullman
Genre: Children's Literature/ Fantasy

Link to Enquiry
The plot of the book leads Lila to Razvani, a great fire fiend who resides in Mt. Merapi (a fictional volcano) in Indonesia

Key Questions/Reflection Points

- How does Lila feel before she embarks on her mission?
- Does Lila believe she could be a firework maker like her father?
- What might have happened if Lila had given up?
- Select descriptive language you like within the story.
- Describe Lila's personality. Explain your reasoning.
- Describe the emotions Lalchand feels throughout the story - Emotion graph.

Key Vocabulary

scrupulous	Something that is done very carefully and with attention to detail.
pyrotechnics	A firework display.
scarcely	Almost never.
swathed	Wrapped in several layers of fabric.
gesticulating	To use dramatic hand gestures.
palanquin	A covered carriage usually carried by four or six servants.
disconsolately	Feeling very unhappy and unable to be cheered up.
sonorous	A deep and loud sound.
Stetson	A cowboy hat.
solemn	Not cheerful or smiling. Very serious.
sarong	A long piece of cloth wrapped around the waist.
procession	A group of people moving in an orderly fashion, especially as part of a ceremony.

Knowledge Organiser: Maths – Multiplication and Division

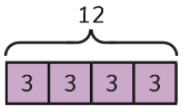
Key Vocabulary

- times tables
- sharing
- grouping
- equal groups
- multiple
- multiply by
- divide by
- array
- fact families
- regrouping

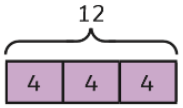
Sharing and Grouping

12 ÷ 4 = 3

12 counters are shared equally between 4 children.



12 counters are grouped into packs of 4.



Multiples of 2, 4 and 8

2	4	6	8	10	12	14	16	18	20	22	24
4	8	12	16	20	24	28	32	36	40	44	48
8	16	24	32	40	48	56	64	72	80	88	96

Doubling the 2 times table is equal to the 4 times table. Doubling the 4 times table is equal to the 8 times table.

Multiplication and Division Facts (3, 4 and 8 multiplication tables)

3 x Tables

1 × 3 = 3	3 ÷ 3 = 1
2 × 3 = 6	6 ÷ 3 = 2
3 × 3 = 9	9 ÷ 3 = 3
4 × 3 = 12	12 ÷ 3 = 4
5 × 3 = 15	15 ÷ 3 = 5
6 × 3 = 18	18 ÷ 3 = 6
7 × 3 = 21	21 ÷ 3 = 7
8 × 3 = 24	24 ÷ 3 = 8
9 × 3 = 27	27 ÷ 3 = 9
10 × 3 = 30	30 ÷ 3 = 10
11 × 3 = 33	33 ÷ 3 = 11
12 × 3 = 36	36 ÷ 3 = 12

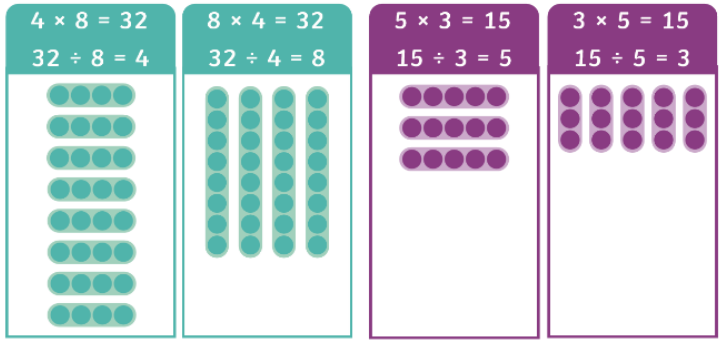
4 x Tables

1 × 4 = 4	4 ÷ 4 = 1
2 × 4 = 8	8 ÷ 4 = 2
3 × 4 = 12	12 ÷ 4 = 3
4 × 4 = 16	16 ÷ 4 = 4
5 × 4 = 20	20 ÷ 4 = 5
6 × 4 = 24	24 ÷ 4 = 6
7 × 4 = 28	28 ÷ 4 = 7
8 × 4 = 32	32 ÷ 4 = 8
9 × 4 = 36	36 ÷ 4 = 9
10 × 4 = 40	40 ÷ 4 = 10
11 × 4 = 44	44 ÷ 4 = 11
12 × 4 = 48	48 ÷ 4 = 12

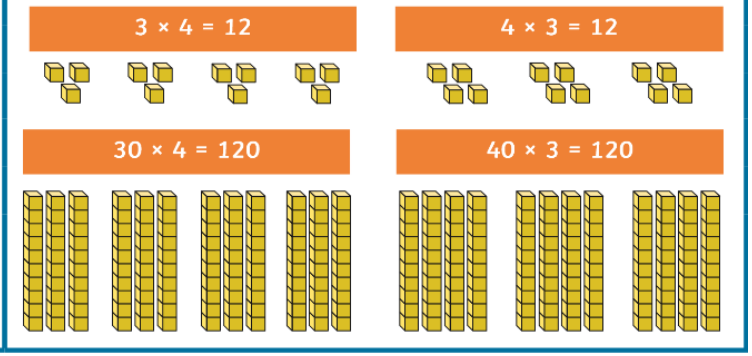
8 x Tables

1 × 8 = 8	8 ÷ 8 = 1
2 × 8 = 16	16 ÷ 8 = 2
3 × 8 = 24	24 ÷ 8 = 3
4 × 8 = 32	32 ÷ 8 = 4
5 × 8 = 40	40 ÷ 8 = 5
6 × 8 = 48	48 ÷ 8 = 6
7 × 8 = 56	56 ÷ 8 = 7
8 × 8 = 64	64 ÷ 8 = 8
9 × 8 = 72	72 ÷ 8 = 9
10 × 8 = 80	80 ÷ 8 = 10
11 × 8 = 88	88 ÷ 8 = 11
12 × 8 = 96	96 ÷ 8 = 12

Fact Families



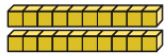
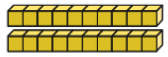
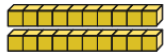
Related Calculations



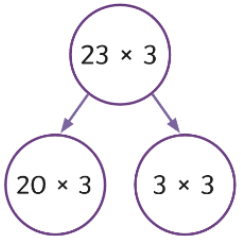
Knowledge Organiser: Maths – Multiplication and Division

Multiplication Methods - No Regrouping

23 × 3 = 69

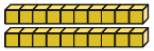
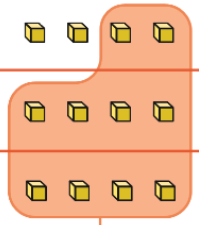
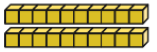
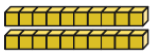
Tens	Ones
	
	
	

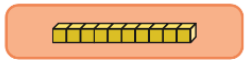
20 × 3 = 60
3 × 3 = 9
23 × 3 = 69



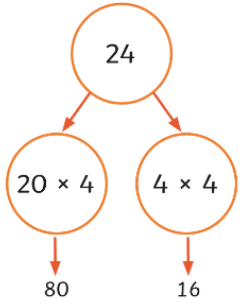
Multiplication Methods - With Regrouping

24 × 4 = 96

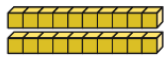
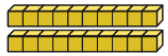
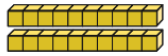
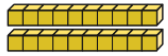
Tens	Ones
	
	
	
	



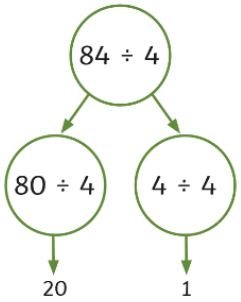
20 × 4 = 80
4 × 4 = 16
24 × 4 = 96



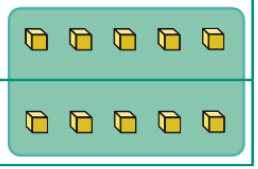
Division Methods - No Exchange

Tens	Ones
	
	
	
	

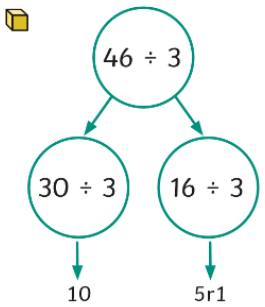
84 ÷ 4 = 21



Division Methods - With Regrouping

Tens	Ones
	
	
	

46 ÷ 3 = 15r1



Knowledge Organiser: Maths – Length and Perimeter

Key Vocabulary

- metre (m)
- centimetre (cm)
- millimetre (mm)
- height
- length
- width
- perimeter
- further/furthest
- higher/highest
- longer/longest
- shorter/shortest
- taller/tallest

Compare Lengths

6mm < 6cm
6cm = 60mm
6mm is shorter than 6cm

320cm > 2m 60cm
320cm > 200cm + 60cm
320cm is longer than 2m 60cm

98mm < 12cm 3mm
98mm < 120mm + 3mm
98mm is shorter than 12cm 3mm

Add and Subtract Lengths

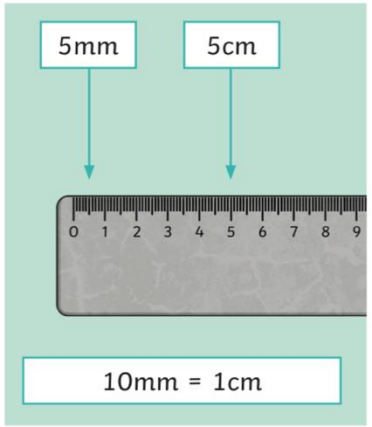
14cm + 19cm = 33cm
8cm 2mm + 16mm =
98mm or 9cm 8mm

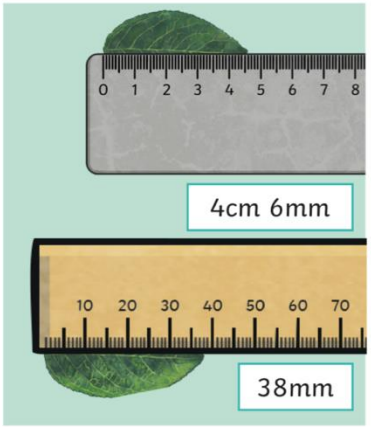
?	
8cm 2mm	16mm
82mm	16mm

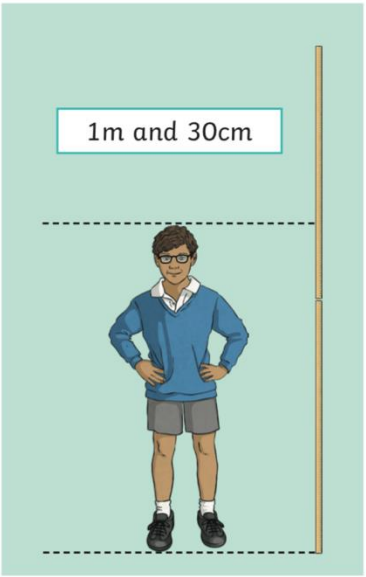
6m – 2m 28cm
6m – 2m = 4m
4m – 28cm = 3m 72cm

6m	
2m 28cm	?

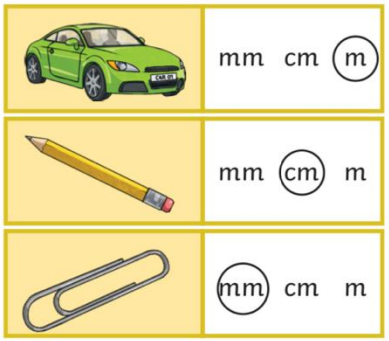
Measure Length



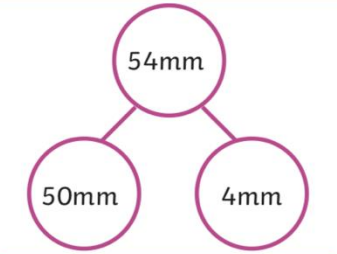




Which Unit of Measure?



Equivalent Length



50mm = 5cm
54mm = 5cm and 4mm

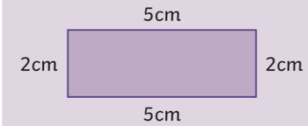
100 centimetres = 1 metre

10 millimetres = 1 centimetre

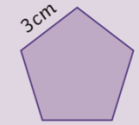
317cm	
300cm	17cm
3m	17cm
3m 17cm	

Perimeter

..... = perimeter

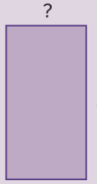


5cm + 2cm + 5cm + 2cm = 14cm



3cm + 3cm + 3cm + 3cm = 15cm

perimeter = 20cm
6cm + 6cm = 12cm
20cm – 12cm = 8cm
8cm ÷ 2 = 4cm



Knowledge Organiser: Science – Forces and Magnets

Birchfield PRIMARY SCHOOL

How strong is the force?

Year 3 Spring Term 2.1

Forces and magnets

Key Vocabulary

Force – the things that allow the movement of all objects around us.

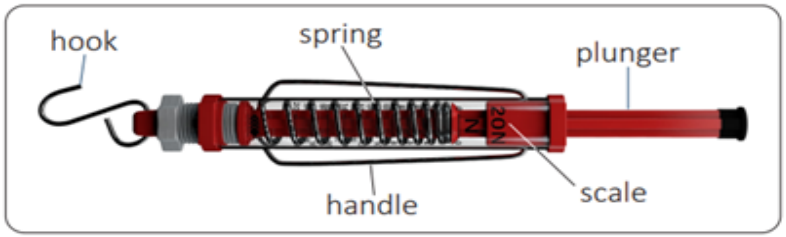
Force meter – is a device that can measure the force of an object.

Attraction - When one object moves towards another object.

Magnetic – a metal object or material that are able to attract objects or materials containing iron or steel

Force Meters

A force meter is a piece of scientific equipment that measures force. It can also be called a newton meter or a spring balance. Forces are measured in newtons (N). A force meter has a handle, hook, plunger, spring and scale.



What is a force?

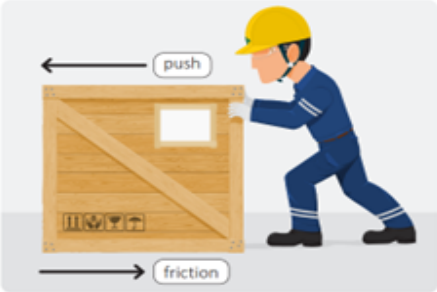
A force is simply a push or a pull that makes something move. Forces act in pairs that oppose each other. Forces cause objects to move, change their speed or change their shape.

Contact Forces

Contact forces happen when two objects or bodies physically touch each other. Frictional forces are a type of contact force.

Frictional Forces

Friction is a force between two surfaces as they move across each other. Friction acts in the opposite direction to the movement. Friction always slows down a moving object. It also produces heat.



Knowledge Organiser: Science – Plants

Birchfield PRIMARY SCHOOL

How do plants grow?

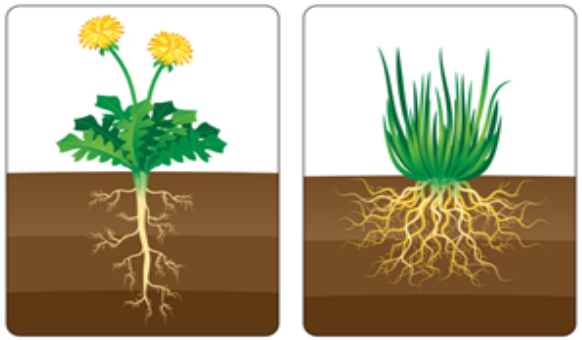
Year 3 Spring Term 2.1 — Plants

Roots

Roots have two main functions. They anchor the plant securely in the ground and take in water and nutrients from the growing medium, such as soil. There are two main types of root systems: taproots and fibrous roots.

A taproot system has a large primary root that grows deep into the soil to anchor the plant. Some taproots are edible, such as carrots and beetroots.

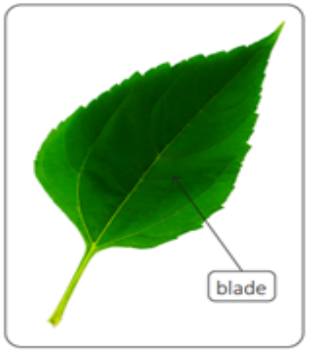
A fibrous root system has many thin roots that grow out from the stem and anchor the plant just under the soil's surface. Fibrous roots spread far from the plant to reach water and nutrients.



Stems

Stems have two main functions. They transport water, nutrients and food around the plant and they support the leaves and flowers. Stems transport water, nutrients and food around the plant through vessels called xylem and phloem. Xylem transport water and nutrients from the roots to the leaves. Phloem transport food made in the leaves to the rest of the plant. A stem also supports the flowers to attract pollinators and the leaves so they can capture sunlight.

Leaves



Leaves have two main functions. They make food for the plant through a process called photosynthesis. They also lose water from their underside in a process called transpiration. The structure of leaves allows them to carry out these functions. The blade captures sunlight, and the stalk and veins transport water into and out of the leaf.

Glossary

Pollinator - An animal that transfers pollen for the process of pollination

Vessel - A tube that transports liquids.

Knowledge Organiser: Geography

Equator

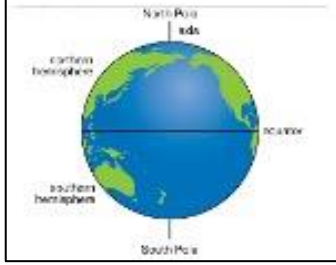
The equator is an imaginary line around the middle of the Earth, halfway between the north and south poles. It gets the most sunlight all year, so places near the equator are usually very warm.

Northern hemisphere

The northern hemisphere is located north of the equator, extending from the equator to the north pole. The land heats up and cools down more quickly than water, creating stronger seasonal temperature variations.

Southern hemisphere

The southern hemisphere is the half of the Earth that is south of the equator. It includes parts of South America, most of Africa, Australia, Antarctica, and the southern parts of Asia. Oceans heat up and cool down more slowly than land, which leads to more moderate temperatures.



Rivers

Upper course

The source of a river is often a spring found on a hill, mountain, or glacier. The part of a river near the source is called a young river. V-shaped valleys and waterfalls can be found in the upper course.

Middle course

The middle course is deeper and wider due to fast flowing water. Floodplains and meanders are features in the middle course.

Lower course

The lower course of a river is characterised by slow-moving water, significant sediment deposition, and features like meanders and floodplains.

River Nile

Over time, land use along the river Nile has changed from traditional farming and fishing to more urban development and large-scale irrigation for agriculture. The construction of dams, like the Aswan High Dam, has also altered the river's flow, affecting both the environment and the people who depend on it.

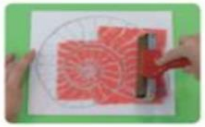
Knowledge Organiser: Art

Knowledge Organiser: Art

Ammonite

Relief printing

1. Carve a picture or pattern into a printing block.



2. Use a roller to cover the block with printing ink and press it onto paper.

3. Peel the paper off the block to reveal the print. The raised areas of the printing block will have printed onto the paper. The recessed areas will have left the paper ink-free.

Two-colour relief print

A two-colour relief print can be made in different ways.

Two-colour roller technique
Apply one colour all over the printing block with a roller. Apply a different colour on top of the first colour, but only in certain areas, leaving some of the first colour showing through.

Reduction printing
Create a print using one colour first and then cut away more areas on the printing block before printing again.

Clay sculpting techniques

Carving
Cutting away clay to make patterns and shapes.

Coiling
Using several long, thin strips of clay to create sculptures or the walls of a pot.

Rolling
Using a rolling pin to create a flat slab of clay or the palms of the hands to create long, thin strips.

Scoring
Scratching marks into the surface to make a strong join between two pieces of clay.

Stretching
Pulling clay to make it longer or wider.

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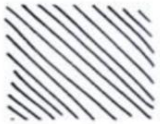
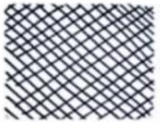
Drawing techniques

Artists use a variety of drawing techniques to create tone, texture and form in their work.



Hatching is the use of parallel lines to shade an area. Increasing the number, thickness or closeness of the lines creates a darker tone.



Cross-hatching is the use of parallel lines that are placed at angles to each other to shade an area. Increasing the number, thickness or closeness of the lines creates a darker tone.

Shading is the use of pencil or other media to create darker and lighter areas. Using more pressure or darker tones of colour creates darker areas. Using less pressure or lighter tones of colour create lighter areas.

Stippling is the use of dots to shade an area. Dots that are close together create dark tones and dots that are spaced apart create lighter tones.

Smudging is the use of fingers or a blending stump to smooth areas that have been shaded using hatching, cross-hatching, shading or stippling techniques.

Home Learning and Useful Links:

This half term our school value will be **'Curiosity'**. Please discuss what this means with your child.

Please talk to your children about the information contained within the Curriculum Overview and the Knowledge Organisers, as they contain information that is crucial to aiding their understanding of topics that we will be covering in class.

Please ensure that your child reads to an adult at home every day. We would like an adult to make a comment in the reading diary. Please return the reading books by **Wednesday** so they can be changed.

We highly recommend that children practice their times tables daily in order to increase fluency.

Useful Links:

Reading:
Oxford Owl for School and Home

Reading and comprehension - English - Learning with BBC Bitesize - BBC Bitesize

Books for Year 3 children aged 7-8 | School Reading List

Writing:
Year 3 English - BBC Bitesize

Writing in Year 3 (age 7–8) - Oxford Owl for Home

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

Maths:
Year 3 Maths Curriculum Toolkit | 7 & 8 Year Olds | Home Learning (thirdspacelearning.com)

YEAR 3 MATHS - Topmarks Search
IXL - Year 3 maths practice

Times Table Rockstars

Multiplication Check Practice

Science:
Moving on different surfaces - BBC Bitesize

What do plants need? - BBC Bitesize

The structure of plants - BBC Bitesize

Geography:
What are latitude and longitude? - BBC Bitesize

What are volcanoes? - BBC Bitesize

What are earthquakes? - BBC Bitesize