



Saint Nathaniel's Academy

Knowledge Organisers

Spring Term 1
Year 3

Multiplication and Division

Knowledge Organiser

Key Vocabulary

- times tables
- multiply by
- divide by
- array
- fact families
- regrouping

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

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

3 x Tables

- $1 \times 3 = 3$
- $2 \times 3 = 6$
- $3 \times 3 = 9$
- $4 \times 3 = 12$
- $5 \times 3 = 15$
- $6 \times 3 = 18$
- $7 \times 3 = 21$
- $8 \times 3 = 24$
- $9 \times 3 = 27$
- $10 \times 3 = 30$
- $11 \times 3 = 33$
- $12 \times 3 = 36$
- $3 \div 3 = 1$
- $6 \div 3 = 2$
- $9 \div 3 = 3$
- $12 \div 3 = 4$
- $15 \div 3 = 5$
- $18 \div 3 = 6$
- $21 \div 3 = 7$
- $24 \div 3 = 8$
- $27 \div 3 = 9$
- $30 \div 3 = 10$
- $33 \div 3 = 11$
- $36 \div 3 = 12$

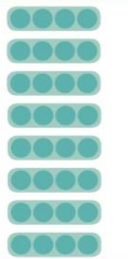

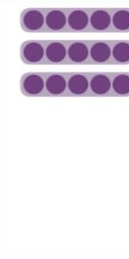

4 x Tables

- $1 \times 4 = 4$
- $2 \times 4 = 8$
- $3 \times 4 = 12$
- $4 \times 4 = 16$
- $5 \times 4 = 20$
- $6 \times 4 = 24$
- $7 \times 4 = 28$
- $8 \times 4 = 32$
- $9 \times 4 = 36$
- $10 \times 4 = 40$
- $11 \times 4 = 44$
- $12 \times 4 = 48$
- $4 \div 4 = 1$
- $8 \div 4 = 2$
- $12 \div 4 = 3$
- $16 \div 4 = 4$
- $20 \div 4 = 5$
- $24 \div 4 = 6$
- $28 \div 4 = 7$
- $32 \div 4 = 8$
- $36 \div 4 = 9$
- $40 \div 4 = 10$
- $44 \div 4 = 11$
- $48 \div 4 = 12$



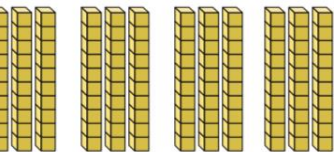
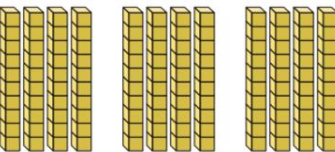
8 x Tables

- $1 \times 8 = 8$
- $2 \times 8 = 16$
- $3 \times 8 = 24$
- $4 \times 8 = 32$
- $5 \times 8 = 40$
- $6 \times 8 = 48$
- $7 \times 8 = 56$
- $8 \times 8 = 64$
- $9 \times 8 = 72$
- $10 \times 8 = 80$
- $11 \times 8 = 88$
- $12 \times 8 = 96$
- $8 \div 8 = 1$
- $16 \div 8 = 2$
- $24 \div 8 = 3$
- $32 \div 8 = 4$
- $40 \div 8 = 5$
- $48 \div 8 = 6$
- $56 \div 8 = 7$
- $64 \div 8 = 8$
- $72 \div 8 = 9$
- $80 \div 8 = 10$
- $88 \div 8 = 11$
- $96 \div 8 = 12$

Write and Calculate Mathematical Statements

$4 \times 8 = 32$ $32 \div 8 = 4$ 	$8 \times 4 = 32$ $32 \div 4 = 8$ 	$5 \times 3 = 15$ $15 \div 3 = 5$ 	$3 \times 5 = 15$ $15 \div 5 = 3$ 
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Related Calculations

$3 \times 4 = 12$ 	$4 \times 3 = 12$ 
$30 \times 4 = 120$ 	$40 \times 3 = 120$ 



Multiplication and Division

Knowledge Organiser

Written Multiplication Methods - No Regrouping

Tens	Ones

$23 \times 3 = 69$

	T	O
	2	3
x		3
	6	9

Written Multiplication Methods - With Regrouping

Tens	Ones

$24 \times 4 = 96$

	T	O
	2	4
x		4
	9	6
	1	

Written Division Methods - No Regrouping

Tens	Ones

$84 \div 4$

	2	1
4	8	4

$80 \div 4$ $4 \div 4$

Written Division Methods - With Regrouping

Tens	Ones

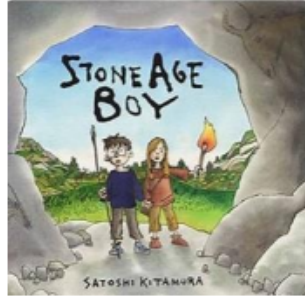
$45 \div 3$

	1	5
3	4	5

$30 \div 3$ $15 \div 3$

The book - Fiction

Title: Stone Age Boy
Author: Satoshi Kitamura
Summary: One day a little boy is walking along when he trips, stumbles and falls ... into the Stone Age! He meets a girl his own age and her tribe, and learns all about their way of life. He watches them make tools, clothes and weapons. He sees how they hunt, fish, cook, celebrate – and even how they paint on the walls of caves. But when a furious cave bear attacks, he wakes up back in his own time where everyone tells him it was only a dream. But was it?



Spelling

floor door poor wild
 flour move prove
 improve clotfles busy
 people century flistory

Spoken language

- Listen and respond
- Build vocabulary
- Articulate and justify answers
- Participate in discussions, presentations, performances, roles plays and debates.

Writing composition

- * Discuss and record ideas
- * Create settings, characters and plot
- * Use headings and subheadings
- * Write in paragraphs
- * Plan writing by discussing the structure, vocab and grammar of similar writing
- * Proof read for spelling and punctuations errors.



Punctuation

Question marks ? Commas ,
 Exclamation marks ! Apostrophes '

Guided Reading - The Iron Man

Where had he come from? Nobody knows.'
 'How was he made? Nobody knows.'
 All the people of the village think that the Iron Man is a monster. He has been eating every single piece of metal in sight. He has been destroying farms everywhere. They might all be right. But will he change from villain to hero when the real monster comes?



Vocabulary

infra –red	swayed	nothingness
craned	gleefully	speechlessly
torso	immense	breakers
towering	puzzled	monstrosity



Key Vocabulary	
igneous rock	Rock that has been formed from magma or lava .
sedimentary rock	Rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.
metamorphic rock	Rock that started out as igneous or sedimentary rock but changed due to being exposed to extreme heat or pressure.
magma	Molten rock that remains underground.
lava	Molten rock that comes out of the ground is called lava .
sediment	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand.
permeable	Allows liquids to pass through it.
impermeable	Does not allow liquids to pass through it.

Key Knowledge

There are three types of naturally occurring rock.

The diagram illustrates the formation of three types of rocks. **Igneous** rocks form from magma or lava. **Sedimentary** rocks form from layers of sediment being pressed together. **Metamorphic** rocks form from existing rocks being changed by heat and pressure.

Natural Rocks			Human-made Rocks
Igneous	Sedimentary	Metamorphic	
Obsidian	Chalk	Marble	Brick
Granite	Sandstone	Quartzite	Concrete
Basalt	Limestone	Slate	Coade Stone

Some words you might use to discuss the properties of a rock:
 hard, soft, **permeable**, **impermeable**, durable (meaning resistant to weathering), high density, low density. Density measures how 'bulky' the rock is (how tightly packed the molecules are).



Key Vocabulary

fossilisation	The process by which fossils are made.
palaeontology	The study of fossils.
erosion	When water, wind or ice wears away land.

Caves are formed when water **permeates** through the base rock and **erodes** some of the rock away. Over thousands of years these caves can become very large.

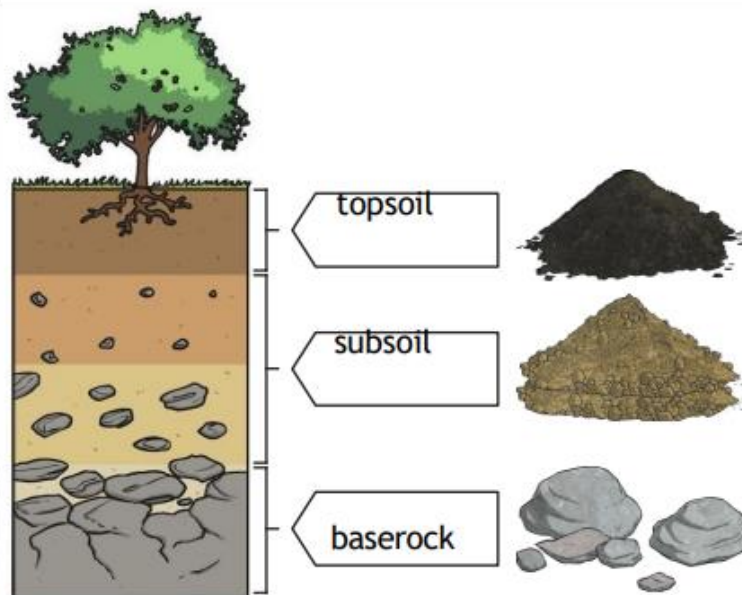


Key Knowledge

Soil

Soil is the uppermost layer of the Earth. It is a mixture of different things:

- minerals (the minerals in soil come from finely broken-down rock);
- air;
- water;
- organic matter (including living and dead plants and animals).



Fossilisation

An animal dies. It gets covered with **sediments** which eventually become rock.

More layers of rock cover it. Only hard parts of the creature remain, e.g. bones, shells and teeth.

Over thousands of years, **sediment** might enter the mould to make a **cast fossil**. Bones may change to mineral but will stay the same shape.

Changes in sea level take place over a long period.

As **erosion** and weathering take place, eventually the fossil becomes exposed.



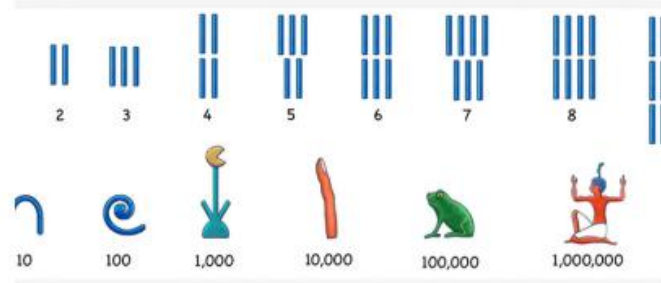
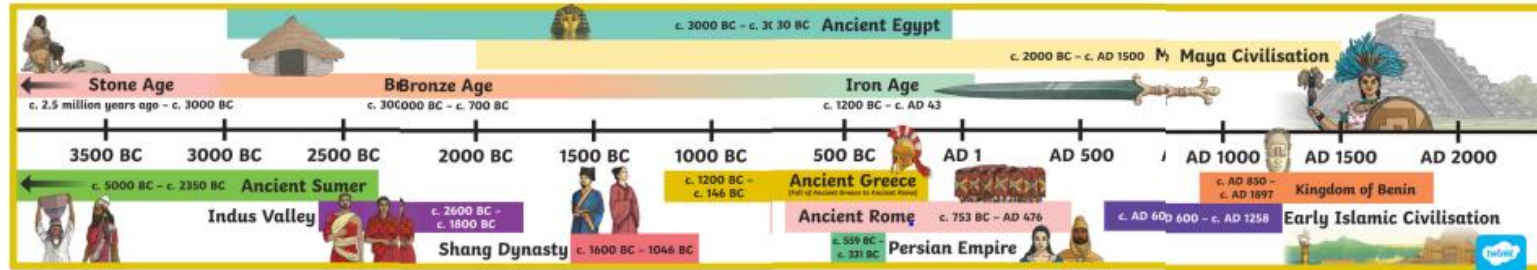


Year 3 Spring 1 - Early Civilisations

Historical Enquiry

Children will be able to...

- Explore where and when the first civilisations began
- Find out about the first writing systems
- Explore trade in early civilisations
- Find out about mathematical understanding in early civilisations
- Explore the technology and inventions of early civilisations
- Explore buildings and architecture of early civilisations



Key Vocabulary

Civilisation

Ancient

Settlement

Hierarchy

Agriculture

Domestication

Trade

Crucial Knowledge Art: Spring Year 3 – William Morris



Drawing – Line, pattern and texture

- I can recreate a wallpaper pattern in the style of William Morris
- I can use soft, light sketching techniques to create a still life sketch
- I can sketch repeating patterns in nature



Painting, printing and colour

- I can explore different types of printing techniques
- I can use a printing block to create repeated patterns
- I can mix and explore different colours to create new shades and tones

Responding to artwork and using a sketchbook

- I can observe and describe elements of William Morris' artwork
- I can find similarities and differences between the different works of William Morris
- I can describe what the Arts and Craft movement was





Unit: 3.4 Touch Typing

Key Learning

- To introduce typing terminology.
- To understand the correct way to sit at the keyboard.
- To learn how to use the home, top and bottom row keys.
- To practise typing with the left and right hand.

Key Resources



Key Vocabulary

Posture

The correct way to sit at the computer.

Keys

Buttons that are pressed on a computer keyboard or typewriter. These can be described by their position; bottom row, top row and home row (middle row).

Space bar

The bar at the bottom of the keyboard.

Typing

The action or skill of writing something by means of a typewriter or in this case a computer.

Key Questions

Why should I have a good posture at the computer?

A good posture is important to help you avoid any injuries that come from repeatedly using the computer incorrectly.

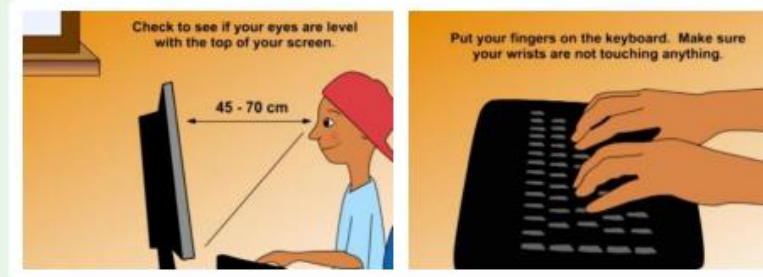
Why should I type certain keys with certain fingers?

Using specific fingers for specific keys allows you to type more quickly.



Unit: 3.4 Touch Typing

Key Images



Posture

