

# Year 3 Maths Knowledge Organiser - Autumn 2



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## Key Vocabulary

- +** add  
plus
- subtract  
minus
- =** equals
- ×** multiply
- ÷** divide
- <** greater than
- >** less than

## 3 digit and 2 digit numbers

### 3-digit and 2-digit numbers

Add and subtract tens

Hundred	Ten	Ones

$$451 + 3 \text{ tens} = 481 \quad (5 + 3 = 8)$$

$$451 - 4 \text{ tens} = 411 \quad (5 - 4 = 1)$$

Crossing 10s (Exchanging)

$$258 + 80 = 338$$

- Column method
- Count in 10s mentally
- Add 100, subtract 20

Crossing 10 and 100

$$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$$

$$\begin{array}{r} 368 \\ -73 \\ \hline 295 \end{array}$$

## 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

## Estimate Answers

Divide number lines into smaller sections to help estimate marked numbers. Estimate by dividing the hundred into 250 and 225.

Estimate 10s (230, 240) between 225 and 250.



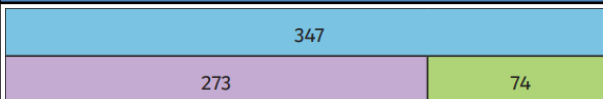
Estimate  $167 - 89$

Use near numbers  $170 - 90 = 80$

Near numbers:

413	279	521	782
↓	↓	↓	↓
400	300	500	800

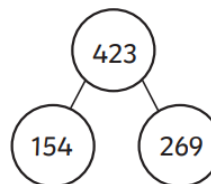
## Check Answers



$347 - 74 = 273$  can be checked using

$$273 + 74 = 347$$

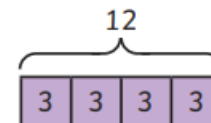
This part whole shows the inverse calculations using these three numbers.



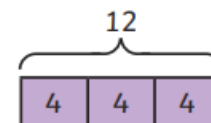
## Sharing and Grouping

$$12 \div 4 = 3$$

12 counters are shared equally between 4 children.



12 counters are grouped into packs of 4.



## Multiplication Facts

3x Table	4x Table	8x Table
$0 \times 3 = 0$	$0 \times 4 = 0$	$0 \times 8 = 0$
$1 \times 3 = 3$	$1 \times 4 = 4$	$1 \times 8 = 8$
$2 \times 3 = 6$	$2 \times 4 = 8$	$2 \times 8 = 16$
$3 \times 3 = 9$	$3 \times 4 = 12$	$3 \times 8 = 24$
$4 \times 3 = 12$	$4 \times 4 = 16$	$4 \times 8 = 32$
$5 \times 3 = 15$	$5 \times 4 = 20$	$5 \times 8 = 40$
$6 \times 3 = 18$	$6 \times 4 = 24$	$6 \times 8 = 48$
$7 \times 3 = 21$	$7 \times 4 = 28$	$7 \times 8 = 56$
$8 \times 3 = 24$	$8 \times 4 = 32$	$8 \times 8 = 64$
$9 \times 3 = 27$	$9 \times 4 = 36$	$9 \times 8 = 72$
$10 \times 3 = 30$	$10 \times 4 = 40$	$10 \times 8 = 80$
$11 \times 3 = 33$	$11 \times 4 = 44$	$11 \times 8 = 88$
$12 \times 3 = 36$	$12 \times 4 = 48$	$12 \times 8 = 96$

## Doubling Numbers

$$2 \times 4 = 8$$

$$4 \times 4 = 16$$

$$8 \times 4 = 32$$

$$2 \times 6 = 12$$

$$4 \times 6 = 24$$

$$8 \times 6 = 48$$

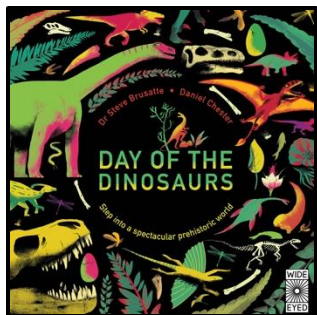
Pupils use their understanding of doubling to connect the 2, 4 and 8 multiplication tables.

# Year 3 English Knowledge Organiser - Autumn 2

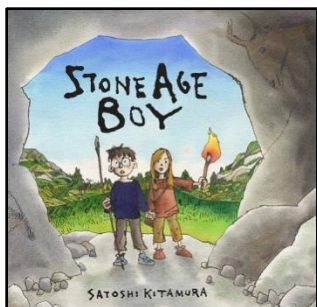


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## Core Texts



**Day of the Dinosaurs**  
Steve Brusatte



**Stone Age Boy**  
Satoshi Kitamura

## Features of Text Type: Writing to Inform

### Grammatical features:

In line with the purpose to **inform**, the text contains interesting facts, supported by the use of **technical vocabulary** specific to the topic.

Despite the historical nature of the content, the text uses the **present tense** to make the reader feel as though they are experiencing life in pre-historic times first-hand.

A wide range of **conjunctions** are used to connect ideas and to create multi-clause sentences.

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### Structural Features:

An **introductory statement** presents the topic and draws the reader in.

Simple devices such as **headings and sub-headings** organise material and guide the reader through the text.

Material is grouped into **paragraphs** or sections of related content.

The information on each page is written **non-chronologically**, meaning that the text is not time-related and therefore the main body of the text can be written in any order.

**Images** help the reader to visualise the information within the text, exemplifying and providing clarity.

## Features of Text Type: Developing Dialogue

### Beginning and End

Keep your inverted commas at the beginning and the end of the words being spoken.  
"Stop!" I said.

### New Speaker, New Line

Start a new line whenever someone new speaks.  
"How are you doing today?" asked Henry.  
"I'm great!" said Ashton.

### Capital Letter

Begin what is spoken with a capital letter!  
"What an amazing day!" he announced.

### Punctuation

Make sure your speech is correctly punctuated!  
"There are times, I feel, that you are a little cold," I said.

### Commas

Remember to add commas.  
Ashton whispered, "Be quiet!"  
"Goodbye," said Jules.

# Year 3 Science Knowledge Organiser - Autumn 1



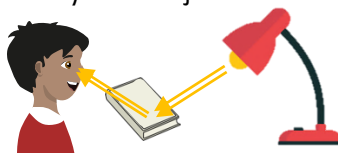
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## Key Vocabulary

<b>control variables</b>	the things that could impact an investigation result, which we therefore need to keep the same where possible
<b>dependent variable</b>	the thing we measure (it depends on the other variable)
<b>independent variable</b>	the thing we change
<b>emit</b>	produce and give off something
<b>matte/dull</b>	objects that are matte or dull are not shiny
<b>reflection</b>	when light bounces off the surface of an object

## How do we see?

- We need light to see.
- Light travels in **straight lines**.
- We see an object when light is **reflected** (bounced off) an object and enters our eye.



- **Darkness** is the absence of light. We cannot see in complete darkness.

## Light Sources

- A **source of light** is something that **emits** (produces) its own light. We can describe light sources as **luminous** objects.
- Natural light sources include the Sun, fire and fireflies.
- Artificial (man-made) light sources include torches, lamps and televisions.
- **Shiny** objects are not light sources. They appear shiny because they reflect lots of light from light sources.

## Fossils

Light can travel through some materials.



**transparent** materials let nearly all light through.



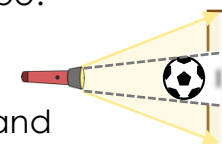
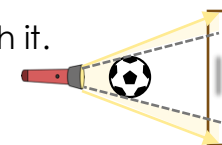
**translucent** materials let some light through.



**opaque** materials let no light pass through. We cannot see through opaque materials.

## Shadows

- A **shadow** is formed on a surface behind an object, when the object does not allow light to pass through it.
- The closer the object is to the light source, the larger the shadow will be. (See diagrams, right).
- We can also change the position and length of shadows by changing the position of the light source.



# Year 3 History Knowledge Organiser - Autumn 2

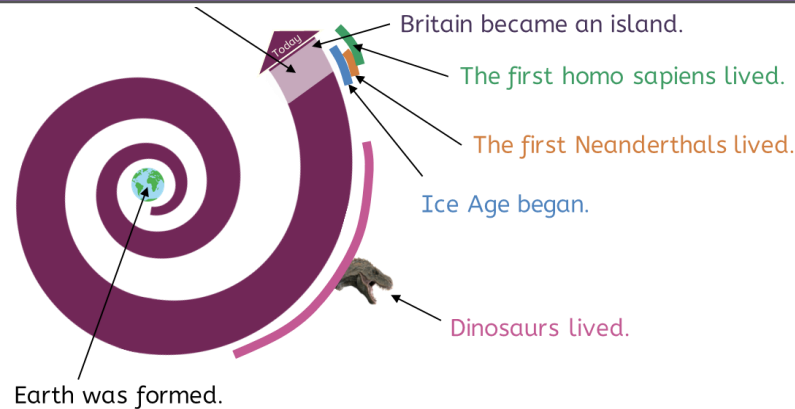


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## Key Vocabulary

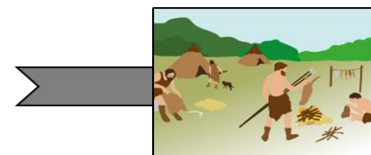
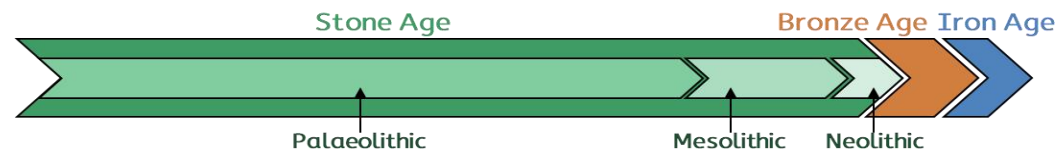
<b>agriculture</b>	the practice of farming, including growing crops and raising animals like sheep and cows.
<b>archaeology</b>	the scientific study of the remains of past human life and activities
<b>artefact</b>	something that a human has made and then left behind
<b>ecofact</b>	natural objects that have been used in some way by humans and left behind
<b>geoglyph</b>	a large design created on the ground, either by adding or removing rocks in a pattern
<b>hominin</b>	a group of species that are very closely related to modern humans
<b>homo sapiens</b>	the name of our modern species of human

## Prehistoric Britain



The Earth was formed billions of years ago. The dinosaurs lived a very long time ago but died out before any human animals – like Neanderthals or *homo sapiens* like us – walked the Earth.

## Changes from Stone Age to Iron Age



Hunter-gatherers hunted animals and gathered fruits and nuts.

Communities were smaller.

Settlements were temporary and people lived a nomadic lifestyle, moving in search of food to hunt and gather.



People started to farm the land and keep animals for food.

Communities were larger.

Settlements were more permanent, centred around farmland.

