

Year 2
Learning
Guide

Maths

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
Autumn	Number: Place Value			Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division	Consolidation	
Spring	Number: Multiplication and Division				Statistics		Geometry: Properties of Shape	Number: Fractions					
Summer	Measurement: Length and Height		Geometry: Position and Direction		Consolidation and problem solving		Measurement: Time		Measurement: Mass, Capacity and Temperature				Consolidation

By the end of the year.....

Mental calculation:

Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward

Recall and use addition and subtraction facts to 20 fluently

derive and use related facts up to 100

Add three one-digit numbers

Estimate answers to calculations and use estimation to check whether answers are reasonable

Number and Place Value

Partition two-digit numbers into different combinations of tens and ones *

identify, represent and estimate numbers using different representations, including the number line

compare and order numbers from 0 up to 100; use <, > and = signs

read and write numbers to at least 100 in numerals and in words

use place value and number facts to solve problems.

Addition and Subtraction

Add 2 two-digit numbers within 100 (e.g. 48+35) and can demonstrate method using concrete apparatus or pictorial representations

Show that + of two numbers can be done in any order (commutative) and – cannot

Subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g. 74-33)

Recognise the inverse relationship between +/- and use this to check calculations and to work out missing number problems (e.g. ?-14= 28)

Multiplication and Division

Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems

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

Fractions

Identify $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{2}{4}$, and $\frac{3}{4}$ and know all parts must be equal parts of the whole

Begin to recognise simple equivalent fractions, such as: $\frac{2}{4}$ and $\frac{1}{2}$.

Measurement

Choose and use standard units to estimate and measure length/height(m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit.

Read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given

Use different coins to make the same amount

Read the time on the clock to the nearest 15 minutes

Geometry: Shapes, Position and Direction

Describe the properties of 2D shapes (sides, vertices and symmetry)

Describe the properties of 3D shapes (edges, vertices and faces and shapes of faces)

Describe position, direction and movement as: straight lines, rotation and in terms of right angles for $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ turns (clockwise/anti).

Statistics

interpret and construct simple pictograms, tally charts, block diagrams and simple tables

ask and answer questions about totalling and comparing categorical data

Additional challenge for the end of the year.....

Mental calculation:

Recall and use number bonds for multiples of 5 to 100

Round numbers to the nearest 10

Add and subtract 2 digit numbers mentally

Represent and use number bonds and related addition and subtraction facts within 100

Number and Place Value

I can count on or back in ones or tens from any number up to 100 and even further

I can read, write and partition 3-digit numbers to 1000.

Begin to understand the connection between the 10 x table and place value (x and \div 1 and 2 digit numbers by 10).

Addition and Subtraction & Algebra

Reason about addition (e.g. sum of three odd numbers will always be odd)

Recognise relationship between addition and subtraction

Work out mental calculations where regrouping is required (e.g. 52-27; 91-73)

Solve more complex missing number problems (e.g. $14 + ? - 3 = 17$; $14 + ? = 15 + 27$).

Solve two step or more linked word problems

Multiplication and Division

Recognise and use the inverse relationship between multiplication and division and use this to check calculations and missing number problems.

Determine remainders given known facts

Solve word problems involving more than one step

Rewrite addition statements as simplified multiplication statements

Fractions

Find and compare fractions of amounts (e.g. $\frac{1}{4}$ of £20 = £5 and $\frac{1}{2}$ of £8 = £4 so $\frac{1}{4}$ of 320 is greater than $\frac{1}{2}$ of £8)

Measurement

Solve one and two step measure problems.

Compare and order measures and record using $<$, $>$ and $=$

Read scales in divisions of ones, twos, fives and tens in practical situations where not all numbers on the scale are given.

Read the time on the clock to the nearest 5 minutes

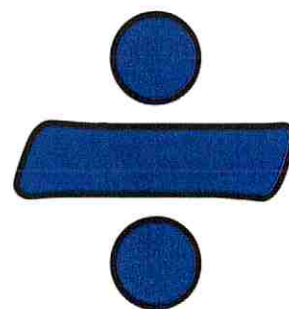
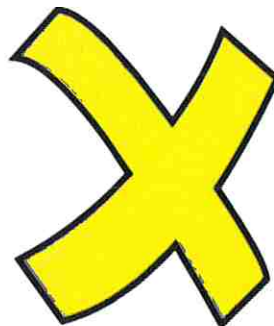
Geometry: Shapes, Position and Direction

Describe similarities and differences of shape properties (e.g. finds 2 different 2D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of vertices, faces and edges but can describe what is different about them)

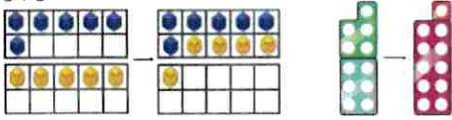
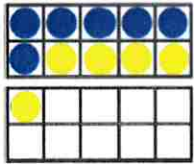

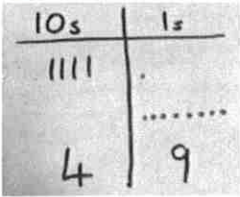
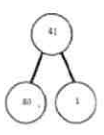
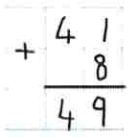
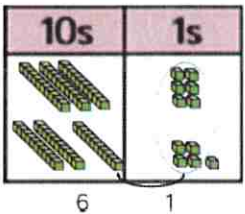
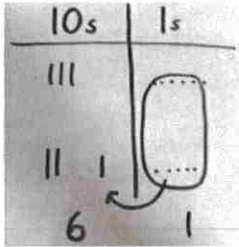
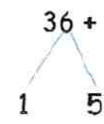

Statistics

Sort and compare numbers, shapes and objects to a given criteria and their own criteria on to sorting diagrams.

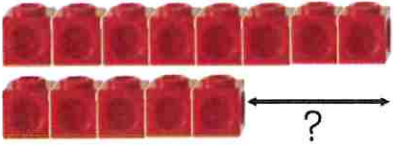
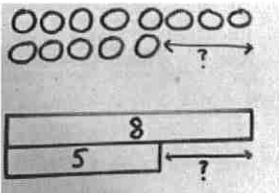
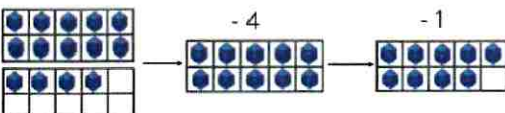
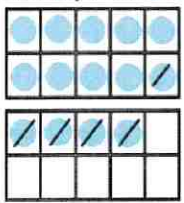
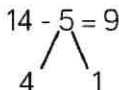
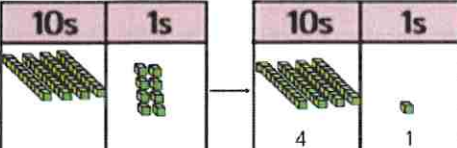
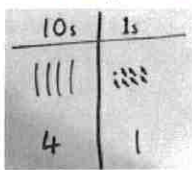
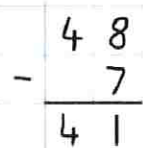
solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?']



Addition

<p>Regrouping to make 10; using ten frames and counters/cubes or using Numicon.</p> <p>6 + 5</p> 	<p>Children to draw the ten frame and counters/cubes.</p> 	<p>Children to develop an understanding of equality e.g.</p> $6 + \square = 11$ $6 + 5 = 5 + \square$ $6 + 5 = \square + 4$
<p>TO + O using base 10. Continue to develop understanding of partitioning and place value.</p> <p>41 + 8</p> 	<p>Children to represent the base 10 e.g. lines for tens and dot/crosses for ones.</p> 	<p>41 + 8</p>  <p>1 + 8 = 9 40 + 9 = 49</p> 
<p>TO + TO using base 10. Continue to develop understanding of partitioning and place value.</p> <p>36 + 25</p> 	<p>Children to represent the base 10 in a place value chart.</p> 	<p>Looking for ways to make 10.</p> <p>36 + 25 =</p>  <p>30 + 20 = 50 5 + 5 = 10 50 + 10 + 1 = 61</p> <p>Formal method:</p> 

Subtraction

<p>Finding the difference (using cubes, Numicon or Cuisenaire rods, other objects can also be used).</p> <p>Calculate the difference between 8 and 5.</p> 	<p>Children to draw the cubes/other concrete objects which they have used or use the bar model to illustrate what they need to calculate.</p> 	<p>Find the difference between 8 and 5.</p> <p>8 - 5, the difference is <input type="text"/></p> <p>Children to explore why 9 - 6 = 8 - 5 = 7 - 4 have the same difference.</p>
<p>Making 10 using ten frames.</p> <p>14 - 5</p> 	<p>Children to present the ten frame pictorially and discuss what they did to make 10.</p> 	<p>Children to show how they can make 10 by partitioning the subtrahend.</p> <p>14 - 5 = 9</p>  <p>14 - 4 = 10 10 - 1 = 9</p>
<p>Column method using base 10.</p> <p>48 - 7</p> 	<p>Children to represent the base 10 pictorially.</p> 	<p>Column method or children could count back 7.</p> 

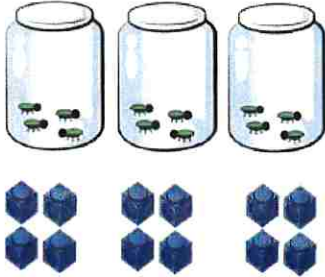
Multiplication

Repeated grouping/repeated addition

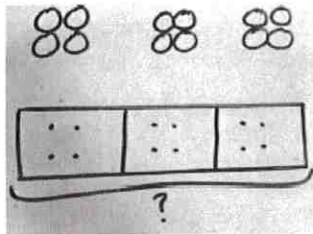
$$3 \times 4$$

$$4 + 4 + 4$$

There are 3 equal groups, with 4 in each group.



Children to represent the practical resources in a picture and use a bar model.

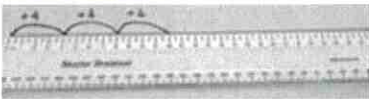


$$3 \times 4 = 12$$

$$4 + 4 + 4 = 12$$

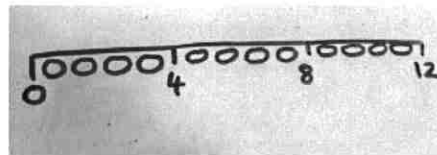
Number lines to show repeated groups-

$$3 \times 4$$



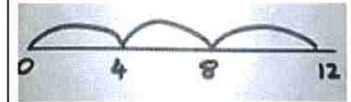
Cuisenaire rods can be used too.

Represent this pictorially alongside a number line e.g.:



Abstract number line showing three jumps of four.

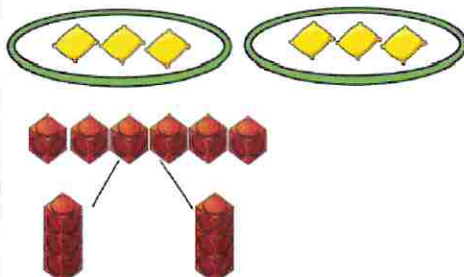
$$3 \times 4 = 12$$



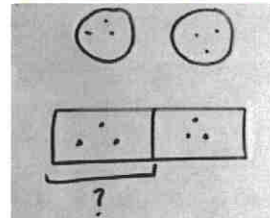
Division

Sharing using a range of objects.

$$6 \div 2$$



Represent the sharing pictorially.



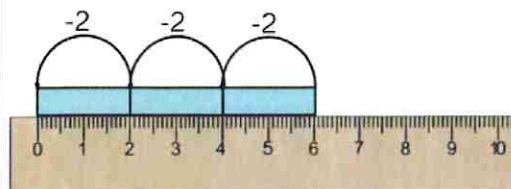
$$6 \div 2 = 3$$

3	3
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Children should also be encouraged to use their 2 times tables facts.

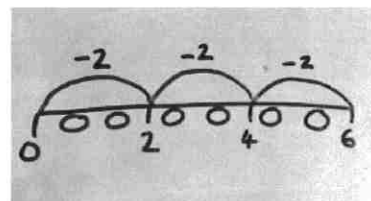
Repeated subtraction using Cuisenaire rods above a ruler.

$$6 \div 2$$

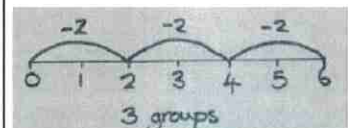


3 groups of 2

Children to represent repeated subtraction pictorially.









Abstract number line to represent the equal groups that have been subtracted.



Literacy

Texts year 2 are

reading

<u>Term 1</u>	<u>Term 2</u>	<u>Term 3</u>	<u>Term 4</u>	<u>Term 5</u>	<u>Term 6</u>
<p>The Giraffe, the Pelly and me</p> 	<p>Leon and the place between</p> 	<p>The story of the Great fire of London</p> 	<p>Mrs Armitage On wheels</p> 	<p>Meerkat Mail</p> 	<p>Mama Panya's pancakes</p> 
<p><u>Fiction</u></p> <p>Description (wanted poster)</p>	<p><u>Fiction</u></p> <p>Narrative (fantasy story)</p>	<p><u>Fiction</u></p> <p>Diary</p>	<p><u>Fiction</u></p> <p>Narrative (journey story)</p>	<p><u>Fiction</u></p> <p>Postcards and informal letters</p>	<p><u>Fiction</u></p> <p>Narrative (Write the story from a different character's point of view)</p>
<p><u>Non-fiction</u></p> <p>Persuasion (advert - new magical sweet)</p>	<p><u>Non-fiction</u></p> <p>Instructions (how to perform a magic trick)</p>	<p><u>Non-fiction</u></p> <p>Newspaper report (The great fire of London)</p>	<p><u>Non-fiction</u></p> <p>Non-chronological report (history of transport)</p>	<p><u>Non-fiction</u></p> <p>Explanation (how to look after a meerkat)</p>	<p><u>Non-fiction</u></p> <p>Information text (Kenya)</p>

Literacy; writing

By the end of the year.....

- Segment spoken words into phonemes and represent these by graphemes, spelling many of these words correctly and making phonetically plausible attempts at others.
- Spell many common exception words.
- Form capital letters and digits of the correct size, orientation and relationship to one another and to lower case letters.
- Use spacing between words that reflects the size of letters.
- Write simple coherent narratives about personal experiences and those of others (real or fictional) maintaining narrative form.
- Write about real events, recording these simply and clearly.
- Demarcate most sentences in their writing with capital letters and full stops, and use question marks correctly when required.
- Use present and past tense mostly correctly and consistently.
- Use coordination and subordination to join clauses.

Examples:

Co-ordinating conjunctions—and, yet, so, nor, or

Subordinating conjunctions—because, since, if, as

- Use some varied vocabulary to create detail and interest, including adjectives to make noun phrases; adverbs and verbs.

Examples:

Noun phrase: The wooden, small chair

The damp, smelly mop

A hairy, giant spider

Adverbs: quickly, speedily, clumsily, carefully, suddenly, slowly, quietly

Literacy; writing

For a challenge by the end of the year.....

Spell most common exception words.

Add suffixes to spell most words correctly in their writing (e.g. -ment, -ness, -ful, -less, -ly)

Examples: ness—happiness, darkness, sadness

ment— excitement, fulfilment, amusement, amazement, punishment

ful— hopeful, grateful, delightful, cheerful, painful, delightful

less— helpless, fearless, hopeless, restless, homeless

ly— quickly, slowly, rapidly, carefully, suddenly

Use the diagonal and horizontal strokes to join some letters.

Write effectively and coherently for different purposes, drawing on their reading to inform the vocabulary and grammar of their writing.

Make simple additions, revisions and proof-reading corrections to their own writing.

Use the punctuation taught at key stage 1 mostly correctly.

Consistently use carried vocabulary to create detail and interest.

Literacy; reading

By the end of the year.....

- Read accurately most words of two or more syllables
- Read most words containing common suffixes*
- Read most common exception words.*

In age-appropriate books, the pupil can:

- Read most words accurately without overt sounding and blending, and sufficiently fluently to allow them to focus on their understanding rather than on decoding individual words
- Sound out most unfamiliar words accurately, without undue hesitation

In a book that they can already read fluently, the pupil can:

- Check it makes sense to them, correcting any inaccurate reading
- Answer questions and make some inferences
- Explain what has happened so far in what they have read.

A challenge for the end of the year.....

- Make inferences
- Make a plausible prediction about what might happen on the basis of what has been read so far
- Make links between the book they are reading and other books they have read.

Year 2 Common Exception Words (NC)

door	floor	poor
because	find	kind
mind	behind	climb
child	children*	wild
most	only	both
old	cold	gold
hold	told	clothes
every	everybody	hour
even	any	many
great	break	steak
pretty	beautiful	
after	fast	last
past	father	class
grass	pass	plant
path	bath	busy
move	prove	improve
sure	sugar	
could	should	would
eye	people	water
who	whole	again
half	money	parents
Mr	Mrs	Christmas











***Note:** 'children' is not an exception to what has been taught so far but is included because of its relationship with 'child'.

Addition


Year 1 Common Exception Words (NC)

the	a	do
to	today	of
said	says	are
were	was	is
his	has	I
you	your	they
be	he	me
she	we	ask
go	so	no
by	my	here
there	where	friend
love	come	some
one	once	school
put	push	
pull	full	
house	our	

Speed Sounds Set 2

ay  may I play?	ee  what can you see?	igh  fly high	ow  blow the snow	oo  poo at the zoo
oo  look at a book	ar  start the car	or  shut the door	air  that's not fair	ir  whirl and twirl

Speed Sounds Set 3

ea  cup of tea	oi  spoil the boy	ou  shout it out	oy  toy for a boy	
ā-e  make a cake	i-e  nice smile	ō-e  phone home	ū-e  huge brute	aw  yawn at dawn
are  care and share	ur  nurse with a purse	er  a better letter	ow  brown cow	ai  snail in the rain
oa  goat in a boat	ew  chew the stew	ire  fire, fire!	ear  hear with your ear	ure  sure it's pure

YEAR: 2 All living things



Lenny's words to learn

habitat	Pond skater
micro habitat	leech
pond	frog
meadow	snail
log pile	slug
woodland	beetle
River	woodlouse
Beach	clover
organism	toad

Lenny's facts to learn

I know 3 differences between living and non-living things.

Habitats are where something lives or grows.

I can identify 3 different habitats.

I can name 3 plants and animals and their habitats.

I can describe a simple food chain.

YEAR: 2 Materials



Lenny's words to learn

soil	compare
milk	cardboard
butter	paper
flour	solid
crumble	sand
squash	hear
bend	smell
touch	test
twist	material

Lenny's facts to learn

I know why not all materials are suitable for all objects.

I know how things move on different surfaces.

I can describe properties of wood, metal, plastic and glass.

I can group materials together.

I know some shapes of solid objects can be changed.

YEAR: 2 Animals including humans



Lenny's words to learn

human	child
insect	teenager
larva	growth
pupa	nutrition
adult	breathing
butterfly	germs
dragonfly	hygiene
baby	energy
toddler	healthy

Lenny's facts to learn

I know animals have offspring that grow into adults.

I know animals need water, food and air to survive

Exercise is important for humans.

Eating the right amounts of different types of food is important for humans.

Hygiene is important for humans to keep healthy.

YEAR: 2 Plants



Lenny's words to learn

water	branch
light	leaves
heat	petals
temperature	flowers
deciduous	roots
Sweet chestnut	twigs
clover	evergreen
willow	crocus
trunk	nettle

Lenny's facts to learn

Plants need water, light and a suitable temperature to grow and stay healthy.

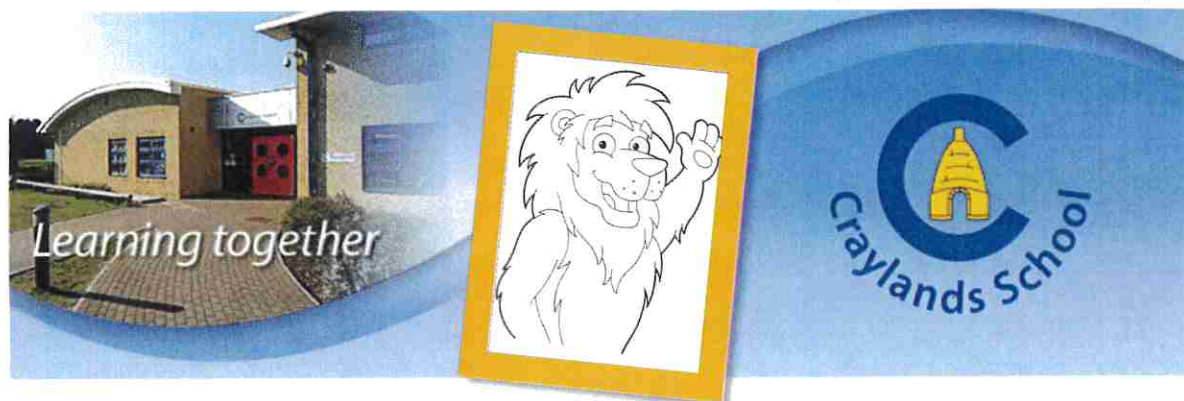
I know how bulbs and seeds grow into plants.

I know how some plants reproduce.

YEAR: 2



TOPIC: The lady with the lamp



Lenny's words to learn

Florence Nightingale	A female nurse who improved the standards of nursing and hospital conditions during the Crimean War.
Mary Seacole	A Jamaican nurse who went to the Crimea (in what is now Ukraine) when war broke out there, determined to help the wounded soldiers. She showed great courage and earned the respect of the men fighting in the war
Crimean War	A war that took place near Turkey between 1854 and 1856, where lots of British soldiers were injured.
Nurse	A person who is medically trained to help others from illnesses and injuries.
Soldier	A person who is in the army.
Lamp	A device which is a light that helps to see in the dark.
Turkey	A country in which is in Europe and Asia.
Scutari	A place in Turkey where soldiers were taken when injured in the Crimean War.
Wounded	An injury that needs healing.
Diseases	Illnesses that stop the body working normally that can result in death.
germs	Small organisms that can cause diseases.

Lenny's facts to learn

When the Crimean War took place, life was very different to today; the Queen was Victoria and this part of history is known as the Victorian period.

In the Victorian period, girls were not educated unless they were rich; Florence Nightingale was from a rich family who helped her to become a nurse.

Lots of British soldiers were wounded during the Crimean War; Florence travelled to Scutari in Turkey to help. The hospital was dirty and diseases spread.

Florence Nightingale used a lamp to check on soldiers during the night and was known as 'The Lady with the Lamp'.

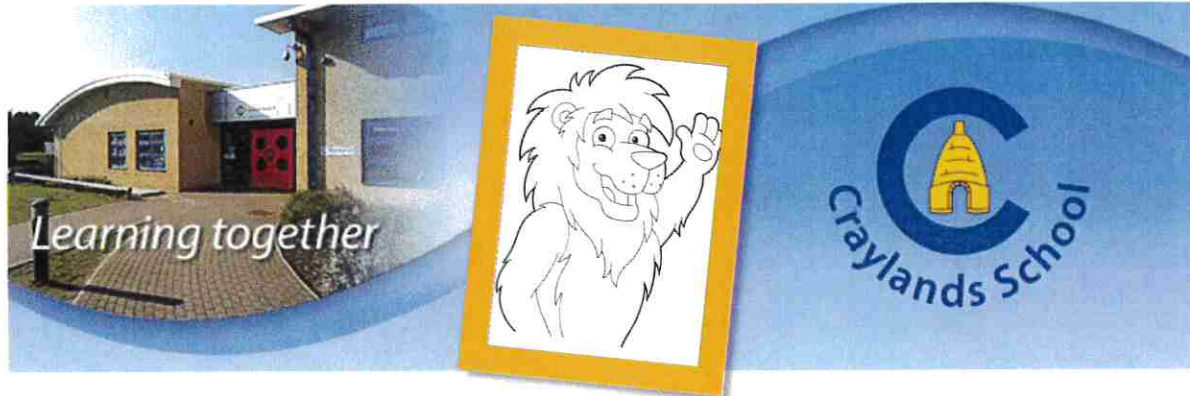
Mary decided something had to be done and so she opened a "British Hotel" near to the battlefields - it was basically a hut made of metal sheets, where soldiers could rest and buy hot food, drinks and equipment.

Mary so was caring, in fact, she became known amongst the soldiers as "Mother Seacole".

YEAR: 2



TOPIC: Great Fire of London



Lenny's words to learn

Stuarts	The Stuart (Stewart) dynasty ruled Scotland (1371 - 1714) and England (1603 - 1714) , This is the period in British history when a king was executed!
King Charles II	Charles II was the third Stuart King of England and reigned until his death on 6 February 1685. He was the son of Charles I , who was beheaded in 1649.
London	The capital city of England.
Baker	Someone who makes bread, cakes, pastries.
Samuel Pepys	Samuel Pepys is famous for writing a diary which included the events of The Great Fire of London.
thatched roof	dried plant material (such as straw or leaves) that is used to make the roof of a building
diary	a daily written record especially of personal experiences and thoughts

Lenny's facts to learn

The **Great Fire of London** happened between 2-5 September in 1666. Before the **fire** began, there had been a drought in **London** that lasted for 10 months, so the city was very dry.

The **fire** began in a bakery in Pudding Lane. In 1666, lots of people had houses made from wood and straw which burned easily.

Charles II was King during the **Great Fire of London**.

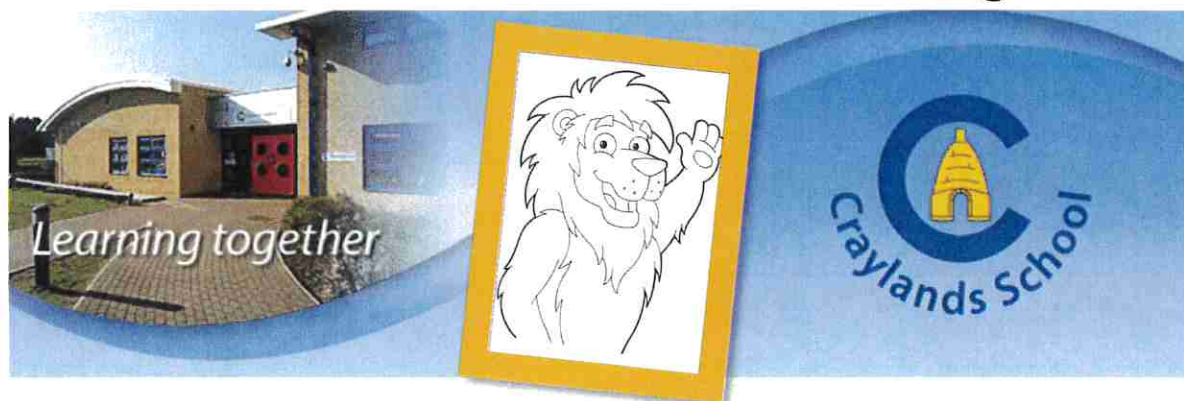
We know what happened during the **fire** because people back then wrote about it in letters and newspapers - for instance, **Samuel Pepys** wrote about it in his diary.

Artists who were alive in 1666 painted pictures of the fire afterwards, so we know what it would have looked like if we'd been there too.

YEAR: 2



TOPIC: Our Amazing Planet



Lenny's words to learn

continent	A massive area of land that is separated from others by water or other natural features.
seasons	Four different times during the year with different types of weather. They are spring, summer, autumn and winter.
climate	The weather over a long period of time.
river	A large stream of water that flows over land.
loch	A lake in Scotland.
forest	A piece of land that has many trees.
ocean	A huge body of salt water.
habitat	A place that an animal lives.
tropical	Places near the equator.

Lenny's facts to learn

There are 7 continents in the world including Asia, Europe, North America, South America, Africa, Australia and Antarctica and different countries belong to them.

Countries that are near the equator have a tropical climate - they are warmer. Countries further away from the equator are colder.

The five oceans of the world are the Arctic, Atlantic, Indian, Pacific and Southern.

The northern part of the world is called the Arctic; the southern part of the world is called Antarctica.

The United Kingdom is made up of Wales, England, Scotland and Northern Ireland; the climate is different in each country.