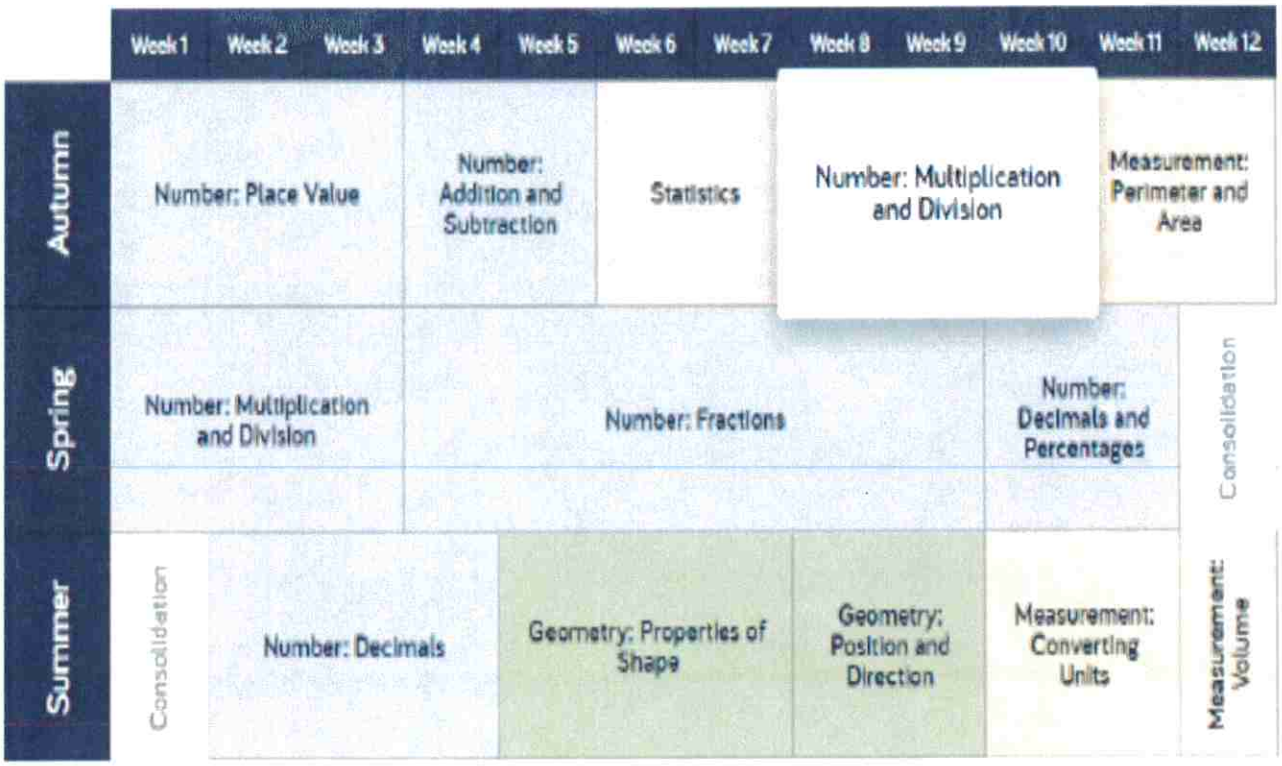
Crayland's School

Year 5 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
Statistics
Number: Multiplication and Division
Measurement: Perimeter and Area
Spring
Number: Multiplication and Division
Number: Fractions
Number: Decimals and Percentages
Consolidation
Summer
Consolidation
Number: Decimals
Geometry: Properties of Shape
Geometry: Position and Direction
Measurement: Converting Units
Measurement: Volume

Maths

By the end of the year.....

Mental calculation:

Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
Add and subtract numbers mentally with increasingly large numbers (example, 12462– 2300 = 10 162)
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000

Number and Place Value

Recognise the place value of each digit in a six and seven digit number.
Read Roman numerals to 1000 (M) and recognise years in Roman numerals
Write decimal numbers as fractions.
Read, write, order and compare numbers with up to three decimal places.
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
Round decimals with two decimal places to the nearest whole number and to one decimal place.
Solve number problems and practical problems that involve year 5 place value knowledge.

Addition and Subtraction, Multiplication and Division

Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
Add and subtract whole numbers with more than 4 digits (column method)
Establish whether a number up to 100 is prime and recall prime numbers up to 19.
Know and use the vocabulary of: prime numbers, prime factors and composite (non-prime) numbers & common factors.
Recognise and use square numbers & cube numbers, and the notation for both.
Multiply numbers up to 4 digits by a one-digit number using a formal written method (short x)
Solve problems involving multiplication and division including: factors and multiples, squares and cubes, scaling by simple fractions and problems involving simple rates.
Solve complex problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

Fractions, ratio and proportion

Add and subtract fractions with the same denominator and multiples of the same number.
Recognise the per cent symbol (%)relates to "number of parts per hundred", and write percentages as a fraction and as a decimal fraction.
Compare and order fractions whose denominators are all multiples of the same number.
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
Read and write decimal numbers as fractions
Read, write, order and compare numbers with up to three decimal places.
Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25

Measurement

Convert between different units of metric measure.
Solve problems involving converting between units of time.
Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints
Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
Calculate and compare the area of squares and rectangles using standard units, and estimate the area of irregular shapes
Estimate volume and capacity*
Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.

Geometry: Shapes, Position and Direction

Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
Identify 3-D shapes from 2-D representations
Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
Draw given angles, and measure them in degrees o
Identify: angles at a point and one whole turn ,angles at a point on a straight line and ½ a turn, other multiples of 90o
Use the properties of rectangles to deduce related facts and find missing lengths and angles.
Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

Statistics and Algebra

Solve comparison, sum and difference problems using data in a line graph.
Compare, read and interpret information in two way tables, including timetables

Statistics

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts&time graphs.
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

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

Mental calculation:

Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one place, extend to two places).
Add and subtract numbers mentally combinations of two, three and four digits.
Use partitioning to double or halve larger numbers, including decimals to two decimal places
Round numbers to a million

Number and Place Value

Recognise negative numbers and can position them on a number line.
Read and write numbers to 10,000
Partition numbers in different ways 145 =100+40 +5 and 130+15
Find the effect of multiplying or ÷ a one or two digit number by 10 or 100
Round numbers to 10 000 to the nearest 10 or 100.
Show very good understanding of place value and is able to apply this to working with larger numbers/decimals and in solving problems.

Addition and Subtraction, Multiplication and Division

Solve complex addition and subtraction problems involving missing numbers.
Add and subtract decimals up to three decimal places.
Describe and extend number sequences including those with x and ÷ and those where the step is a decimal or fraction.
Create a number pattern by multiplying or dividing by a constant to get the next term.
Show a clear understanding of the different structures of multiplication and division and the related vocabulary and am able to apply this to solving increasingly complex problems.
Apply knowledge of the inverse operation and the links between division and multiplication to solving problems.
Solve problems of increasingly complexity using a range of strategies and am able to communicate my reasoning.

Fractions, ratio and proportion

Show a very good understanding of the connections between fractions decimals and percentages and is able to use their knowledge to translate between the three.
Apply their knowledge of fractions, decimals and percentages to problems of increasing complexity and to explain their reasoning and thinking.
Apply links with division to solving increasingly complex problems.

Measurement

Convert fluently and efficiently between different units of measures and be able to reason about the multiplicative relationship between related measures.

Use their understanding of the concepts related to measures to solve increasingly complex problems.

Communicate reasoning and talk about mathematics using sophisticated mathematical language.

Geometry: Shapes, Position and Direction

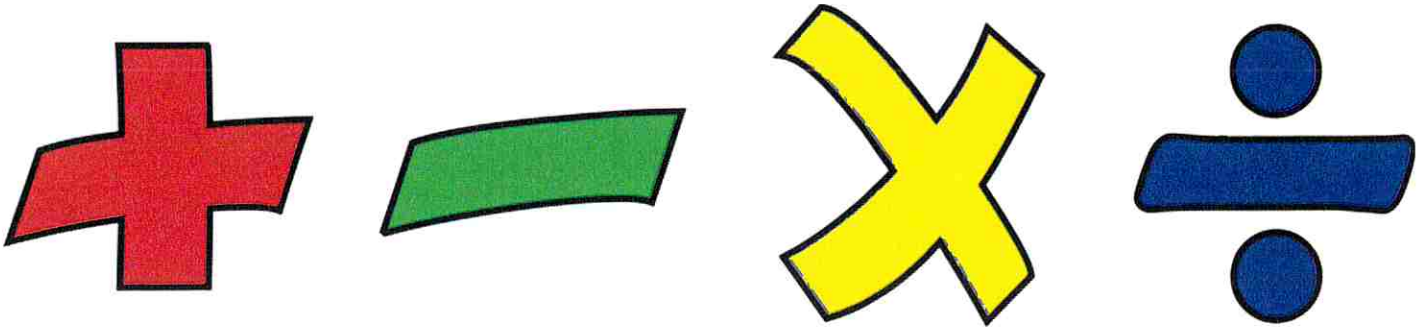
I can use straight edge and compasses to do standard constructions.
Sort and classify shapes using a wide range of criterion using increasingly sophisticated mathematically appropriate vocabulary.
Creatively apply knowledge of shapes to solving problems with increasing complexity and be able to justify reasoning and communicate their thinking.
Make links and connections with other areas of the curriculum and be able to generalise their understanding.
Solve increasingly complex problems involving position and movement.
Apply knowledge and understanding of position and movement to other curriculum areas such as geography and science.

Statistics and Algebra

Use knowledge of data handling to pose hypothesis and answer questions through the analysis and interpretation of data. Draw conclusions and communicate them.

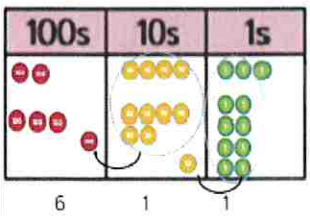
Statistics

Decide when to use the mode, median and range to describe a set of data.

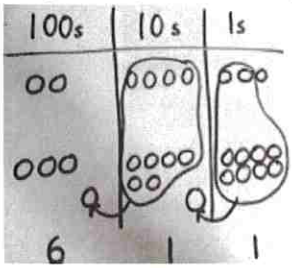


Addition

Use of place value counters to add HTO + TO, HTO + HTO etc. When there are 10 ones in the 1s column- we exchange for 1 ten, when there are 10 tens in the 10s column- we exchange for 1 hundred.

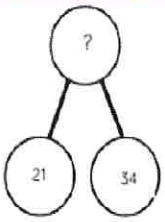


Chidren to represent the counters in a place value chart, circling when they make an exchange.



$$\begin{array}{r} 243 \\ +368 \\ \hline 611 \\ \hline 1\ 1 \end{array}$$

Conceptual variation; different ways to ask children to solve 21 + 34



?	
21	34

Word problems:
In year 3, there are 21 children and in year 4, there are 34 children.
How many children in total?

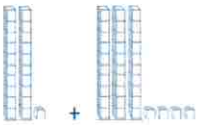
21 + 34 = 55. Prove it

$$\begin{array}{r} 21 \\ +34 \\ \hline \end{array}$$

21 + 34 =

$\square$ = 21 + 34

Calculate the sum of twenty-one and thirty-four.

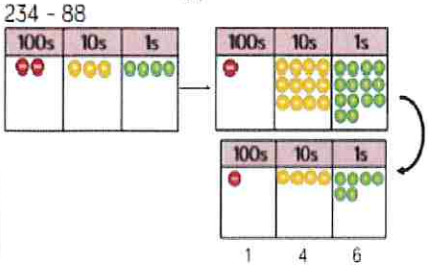


Missing digit problems:

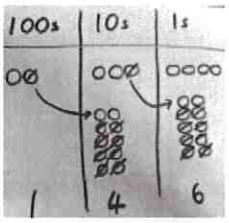
10s	1s
	1
	?
?	5

Subtraction

Column method using place value counters.
234 - 88



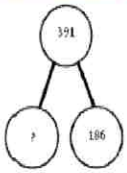
Represent the place value counters pictorially; remembering to show what has been exchanged.



Formal colum method. Children must understand what has happened when they have crossed out digits.

$$\begin{array}{r} \overset{2}{2}\overset{1}{3}4 \\ -\ 88 \\ \hline 6 \end{array}$$

Conceptual variation; different ways to ask children to solve 391 - 186



391	
186	?

Raj spent £391, Timmy spent £186.
How much more did Raj spend?

Calculate the difference between 391 and 186.

$\square$ = 391 - 186

$$\begin{array}{r} 391 \\ -186 \\ \hline \end{array}$$

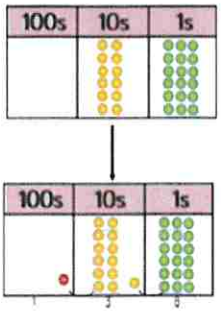
What is 186 less than 391?

Missing digit calculations

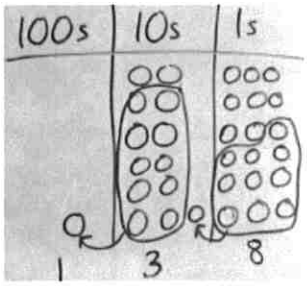
$$\begin{array}{r} 3\ 9\ \square \\ -\ \square\ \square\ 6 \\ \hline \square\ 0\ 5 \end{array}$$

Multiplication

Formal column method with place value counters.
6 x 23



Children to represent the counters/base 10, pictorially e.g. the image below.



Formal written method

$$6 \times 23 =$$

$$\begin{array}{r} 23 \\ \times\ 6 \\ \hline 138 \\ \hline 1\ 1 \end{array}$$

When children start to multiply 3d x 3d and 4d x 2d etc., they should be confident with the abstract:

To get 744 children have solved 6 x 124.
To get 2480 they have solved 20 x 124.

$$\begin{array}{r} 1\ 2\ 4 \\ \times\ \ 2\ 6 \\ \hline 7\ 4\ 4 \\ 2\ 4\ 8\ 0 \\ \hline 3\ 2\ 2\ 4 \\ \hline 1\ 1 \end{array}$$

Answer: 3224

Conceptual variation; different ways to ask children to solve 6 x 23

23	23	23	23	23	23

?

Mai had to swim 23 lengths, 6 times a week.
How many lengths did she swim in one week?

With the counters, prove that 6 x 23 = 138

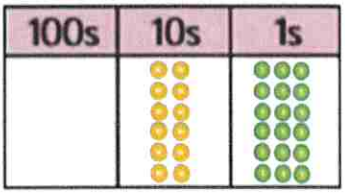
Find the product of 6 and 23

6 x 23 =

□ = 6 x 23

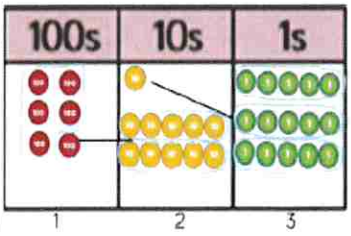
$$\begin{array}{r} 6 \\ \times\ 23 \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 23 \\ \times\ 6 \\ \hline \\ \hline \end{array}$$

What is the calculation?
What is the product?



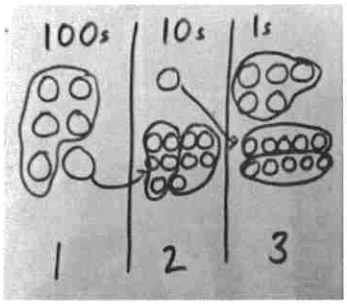
Division

Short division using place value counters to group.
615 ÷ 5



1. Make 615 with place value counters.
2. How many groups of 5 hundreds can you make with 6 hundred counters?
3. Exchange 1 hundred for 10 tens.
4. How many groups of 5 tens can you make with 11 ten counters?
5. Exchange 1 ten for 10 ones.
6. How many groups of 5 ones can you make with 15 ones?

Represent the place value counters pictorially.

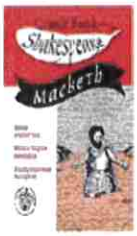


Children to the calculation using the short division scaffold.

$$5\overline{)615} = 123$$

Literacy

Texts year 5 are reading

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
London Eye Mystery 	Macbeth 	Beowulf 	Viking Boy 	Treason 	Wreck of the Zanzibar 
Fiction Diary Informal letter	Fiction Playscript	Fiction Narrative (Beating the monster story)	Fiction Narrative Research (Norse Myths)	Fiction Narrative (new chapter)	Fiction Narrative (disaster story)
Non-Fiction Information text (autism)	Non-Fiction Newspaper Discussion (Monarchy/Government EU Parliament BREXIT)	Non-Fiction Explanation (how dragons look after their treasure)	Non-fiction Balanced argument	Non-Fiction Persuasion	Non-Fiction Non-chronological report (Isle of Scilly)

Literacy; writing

By the end of the year.....

- Spell many words from the YR 5-6.
- Handwriting is legible and joined.
- Write to suit purpose and audience, independently using appropriate features.
- Organise writing into sections or paragraphs; create cohesion by linking ideas within paragraphs.
- Use dialogue to indicate character and event.
- Describe characters, settings and plot, with growing precision.
- Usually maintain correct tense.
- Indicate degrees of possibility using adverbs e.g. perhaps, surely; and modal verbs e.g. might, should, must.
- Demarcate sentences correctly. Use comma for a pause in complex sentences. Begin to use punctuation for parenthesis: brackets, commas, dashes.

Examples:

The man, who was tall, hit his head on the wooden beam.

After a while, the sun began to set, as the clouds gathered together for a meeting in the dark sky.

The boy (named Charlie) was friendly and caring.

The moon rose in the night sky—it was a full moon.

- Write a range of sentence structures which are grammatically accurate. Understand 'relative clause' which begins with relative pronouns: who, which, where, when, whose.

Examples

The chair, which was made of metal, collapsed as the boxes were placed on top.

A monster, that was hideous to look at, lived within the depths of the murky cave.

The children, who were always well behaved, settled to their work quickly.

Literacy; writing

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

- Spell correctly most words from the year 5-6 list.
- Handwriting is legible and joined even when writing at speed.
- Write to suit purpose and audience, independently using appropriate features. May include humour or suspense.
- Organise writing into cohesive paragraphs. Expand on relevant detail within paragraphs.
- Use dialogue effectively to develop character and event. Achieve balance between dialogue and narrative writing.
- Describe characters, setting and atmosphere with precision.
- Maintain the correct tense.
- Demarcate sentences correctly, using a growing range of punctuation e.g. a comma to avoid ambiguity; brackets, commas, dashes. Write, with confidence, a wide range of sentence structures which are grammatically accurate, including relative clauses.

Literacy; reading

By the end of the year.....

- Read and enjoy a growing repertoire of texts.
- Discuss and comment on themes and conventions.
- Provide straightforward explanations for the purpose of the language, structure and presentation of texts.
- Discuss their understanding of the meaning of new words.
- Discuss and evaluate the effect of the author's choice of language on the reader.
- Make comparisons within and across texts.
- Draw inferences and justify these with evidence from the text.
- Distinguish fact from opinion.
- Explain what they know or have read.

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

- Read frequently and enjoy a wide repertoire of texts.
- Identify confidently many different text types.
- Competently recommend books to peers, giving sustained reasons.
- Discuss and comment on a variety of themes and conventions in a variety of genres.
- Explain and comment on the purpose of language, structure and presentation, clearly understanding how they contribute to meaning.
- Discuss their understanding of the meaning of challenging words in context.
- Draw more hidden and challenging inferences from the text and justify these with evidence.

Word list – years 3 and 4

accident(ally)
actual(ly)
address
answer
appear
arrive
believe
bicycle
breath
breathe
build
busy/business
calendar
caught
centre
century
certain
circle
complete
consider
continue
decide
describe
different
difficult
disappear
early
earth
eight/eighth
enough
exercise
experience
experiment
extreme
famous
favourite
February
forward(s)
fruit
grammar
group
guard
guide
heard
heart
height
history
imagine
increase
important
interest
island
knowledge
learn
length
library
material
medicine
mention
minute
natural
naughty
notice
occasion(ally)
often
opposite
ordinary
particular
peculiar
perhaps
popular
position
possess(ion)
possible
potatoes
pressure
probably
promise
purpose
quarter
question
recent
regular
reign
remember
sentence
separate
special
straight
strange
strength
suppose
surprise
therefore
though/although
thought
through
various
weight
woman/women

Word list – years 5 and 6

accommodate
accompany
according
achieve
aggressive
amateur
ancient
apparent
appreciate
attached
available
average
awkward
bargain
bruise
category
cemetery
committee
communicate
community
competition
conscience*
conscious*
controversy
convenience
correspond
criticise (critic + ise)
curiosity
definite
desperate
determined
develop
dictionary
disastrous
embarrass
environment
equip (–ped, –ment)
especially
exaggerate
excellent
existence
explanation
familiar
foreign
forty
frequently
government
guarantee
harass
hindrance
identity
immediate(ly)
individual
interfere
interrupt
language
leisure
lightning
marvellous
mischievous
muscle
necessary
neighbour
nuisance
occupy
occur
opportunity
parliament
persuade
physical
prejudice
privilege
profession
programme
pronunciation
queue
recognise
recommend
relevant
restaurant
rhyme
rhythm
sacrifice
secretary
shoulder
signature
sincere(ly)
soldier
stomach
sufficient
suggest
symbol
system
temperature
thorough
twelfth
variety
vegetable
vehicle
yacht

YEAR: 5

Animals including humans

Lenny's words to learn	
gestation	fetus
fertilisation	species
baby	toddler
adolescent	adult
elderly	puberty
hormone	develop
wrinkle	muscle
memory	cells
ageing	elastic

Lenny's facts to learn
I can describe the changes as humans age
I can create timelines to show growth

YEAR: 5

Earth and Space

Lenny's words to learn	
Earth	axis
rotate	solar
star	planets
moon	orbit
lunar	orbit
revolve	sphere
Mercury	Venus
Mars	Jupiter
Saturn	Neptune

Lenny's facts to learn
I know how the Earth and other planets move relative to the Sun
I know how the Moon moves in relation to the Earth
I can describe the shape of the Sun, Moon and Earth
I know night and day happen due to the Earth's rotation

YEAR: 5

Forces

Lenny's words to learn	
force	gravity
friction	air
resistance	upthrust
weigh	Newton
particles	meter
surface	push
pull	balance
gears	levers
pulleys	springs

Lenny's facts to learn
I know what gravity is
I know how air resistance, water resistance and friction act between moving surfaces
I know that smaller forces can have greater effect when used with levers, pulleys and gears

YEAR: 5

Properties and changes in materials

Lenny's words to learn	
thermal	conductor
insulator	electrical
dissolve	solvent
solution	soluble
solid	liquid
particles	suspension
sieve	filter
evaporate	condense
separate	gases

Lenny's facts to learn
I know hardness, solubility, transparency, conductivity and magnetism are properties of materials
I can group materials depending on their properties
I know some materials will dissolve in liquid
I know how to recover a substance from a solution
I know how solids, liquids and gases can be separated using filtering, sieving and evaporation

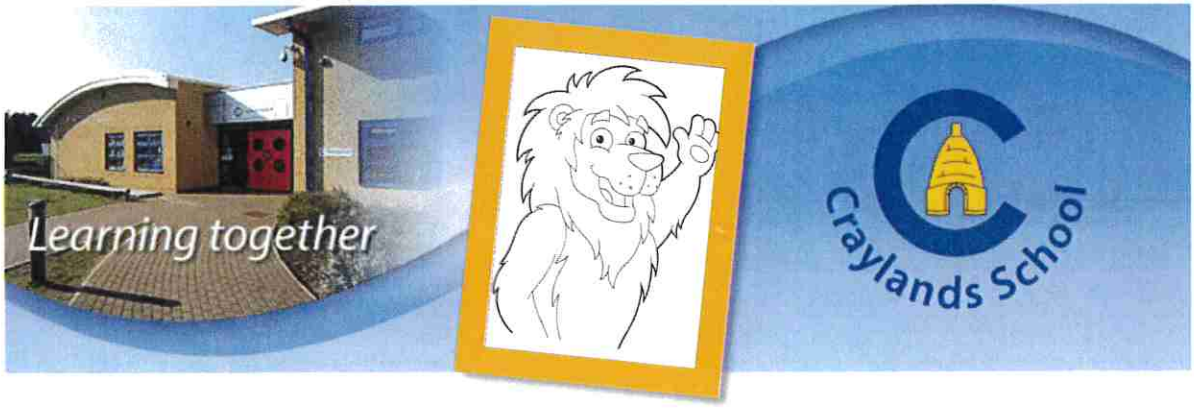
YEAR: 5

Living things and their habitat

Lenny's words to learn	
amphibian	reptiles
birds	mammals
insect	fish
larva	pupa
nymph	metamorphosis
germination	stamen
Anther	filament
carpel	stigma
pollination	fertilisation

Lenny's facts to learn
I can describe differences in the life cycles of a mammal, an amphibian, an insect and a bird
I can describe the life cycle of common plants
I know about a famous naturalist or animal behaviourist

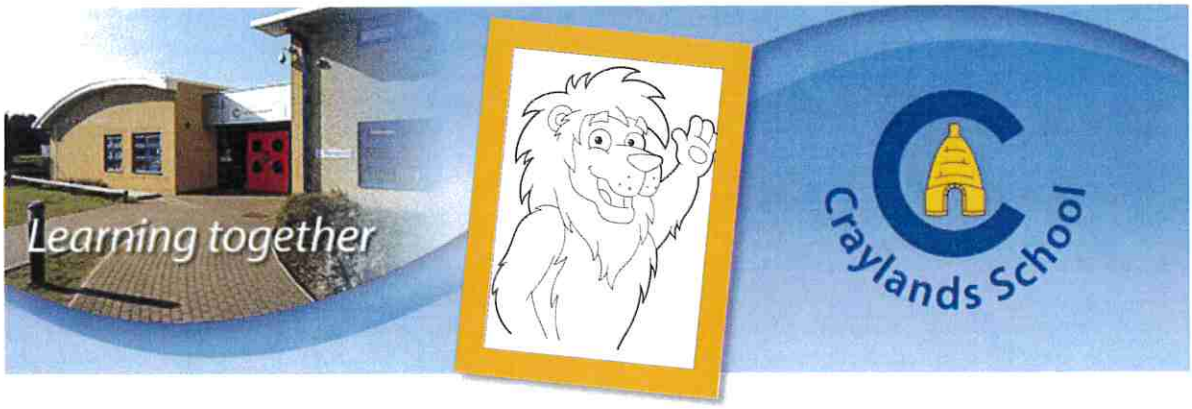
YEAR: 5 TOPIC: Cultural Europe/Landmarks



Lenny's words to learn	
landmarks	An object or feature of a landscape or town that is easily seen and recognised from a distant; can be used to establish where you are.
grid references	A map reference indicating location in terms of vertical and horizontal grid lines identified by numbers or letters.
tourism	The process of people travelling for fun.
Greenwich meantime	The place where time differences are measured from.
currency	The money that a country uses.
Europe	A continent that the UK is part of.
English Channel	The stretch of water between England and France.
Capital	The main city of a country where government exists.
population	The number of people who live somewhere.

Lenny's facts to learn
Swanscombe is in Kent, England which is part of the United Kingdom, which is part of the continent of Europe. London is the capital city.
There are landmarks across Europe including the Shard, London Eye, Big Ben, Tower Bridge and Buckingham Palace in London; Eiffel Tower, Arc du Triomphe, Notre Dame in Paris, France; the Colosseum in Rome, Italy and Tower of Pisa in Pisa, Italy.
The currency of Europe is the Euro, however there are some countries in Europe with their own currency still.
Countries to the right of the Greenwich Mean line are ahead of the UK in terms of time; countries to the left are behind.

YEAR: 5 TOPIC: Anglo Saxons



Lenny's words to learn

Anglo Saxons	The Germanic inhabitants of England from their arrival in the 5th century up to the Norman Conquest.
Bayeaux Tapestry	An embroidered cloth, about 70 metres long, illustrating events leading up to the Norman Conquest and made between 1066 and 1077.
runes	A letter of an ancient Germanic alphabet, related to the Roman alphabet.
Sutton Hoo	An Anglo Saxon grave was discovered in Sutton Hoo.
Offa's Dyke	**Offa's Dyke** is a large earthwork that roughly follows the current border between England and Wales. The structure is named after **Offa**, the 8th century king of Mercia.
thatched house	A house with a roof made with straw.
Alfred the Great	Alfred the Great was the King of Wessex, an Anglo-Saxon kingdom in southwestern England; he is best known for preventing the Viking conquest of England.

Lenny's facts to learn

In 410, the Romans left England because their homes in Italy were being attacked by fierce tribes and every soldier was needed.

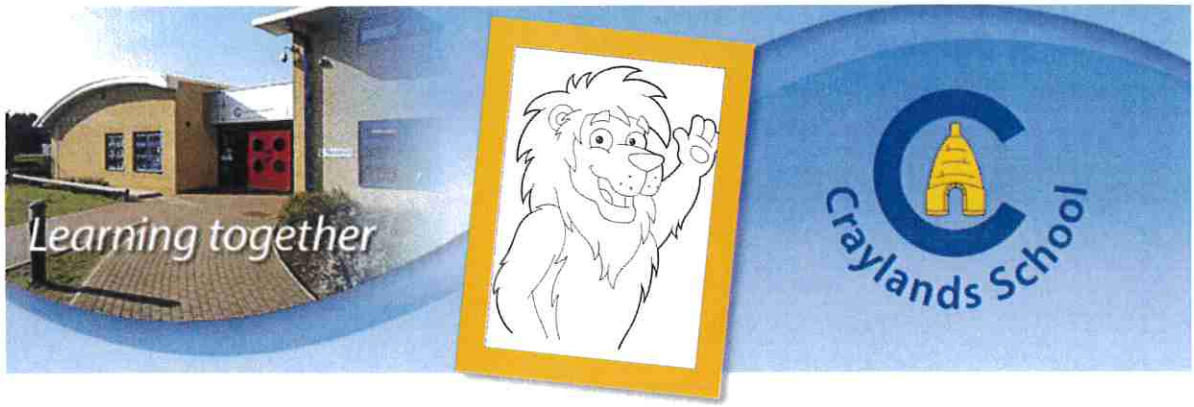
Angles, Saxons and Jutes from across the North Sea who had been raiding the coast of Britain for a hundred years began to settle in 450ADhere. The invasion consisted of a series of attacks on different parts of the country over a period of years and under a number of leaders.

The Anglo-Saxons left their homelands in northern Germany, Denmark and The Netherlands and rowed across the North Sea in wooden boats to Britain.

The Anglo-Saxons were pagans when they came to Britain, but, as time passed, they gradually converted to Christianity.
Pagans worshiped lots of different gods.

By about 600, England was divided into small Anglo-Saxon kingdoms each ruled by a king.
Much of what we know about the Anglo-Saxons comes from graves like the one discovered at Sutton Hoo in Suffolk.

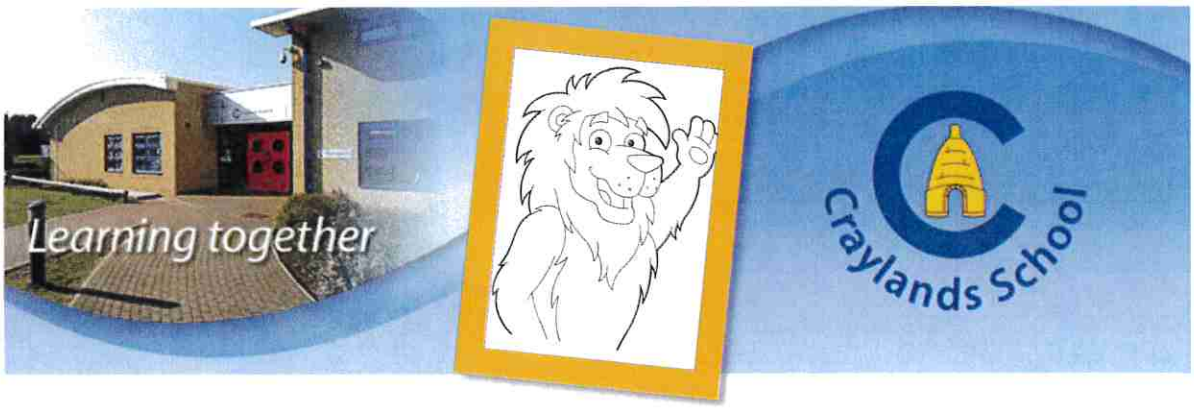
YEAR: 5 TOPIC: Vikings



Lenny's words to learn	
Vikings	The Germanic inhabitants of England from their arrival in the 5th century up to the Norman Conquest.
Bayeaux Tapestry	An embroidered cloth, about 70 metres long, illustrating events leading up to the Norman Conquest and made between 1066 and 1077.
Long ship	Longships were seagoing vessels made and used for trade, exploring, and raiding.
Danelaw	The areas the Viking settled in were known as Danelaw
Offa's Dyke	**Offa's Dyke** is a large earthwork that roughly follows the current border between England and Wales. The structure is named after **Offa**, the 8th century king of Mercia.
Odin	The leader of the Viking Gods.
Alfred the Great	Alfred the Great was the King of Wessex, an Anglo-Saxon kingdom in southwestern England; he is best known for preventing the Viking conquest of England.

Lenny's facts to learn
In the ninth century (Year 800), 400 hundred years after the Anglo-Saxons invaded England, the country came under attack from Viking raiders from Norway and northern Denmark.
Vikings were also known as the Norsemen. They were great travellers and sailed to other parts of Europe, where they traded, raided, and often settled.
Many Vikings were great travellers and sailed all over Europe and the Atlantic Ocean in their longships. Their longships could sail in shallow water which meant they could travel up rivers as well as across the sea
The Vikings were also farmers, fishermen, trappers and traders. Viking craftsmen made beautiful objects out of wood, metal and bone; Viking women were skilful weavers, produced fine, warm textiles.
Vikings invaded for better land for growing crops or rearing animals; More Land because of overcrowding; the Vikings searched for treasures to make them rich.
The end of Anglo Saxon/Viking Britain is shown in the images of the Bayeaux Tapestry.

YEAR: 5 TOPIC: Crime and Punishment



Lenny's words to learn	
punishment	The consequence for committing a crime.
execution	To legally end someone's life for a crime.
guillotine	A machine for cutting off someone's head
hanging	To be killed on the gallows by tying a rope around the neck
pick pocketing	A thief who steals from **pockets** and purses.
smuggling	To export or import secretly and unlawfully
vandalism	Intentional destruction of or damage to property.
justice	The upholding of what is fair, just, and right
law	A rule of conduct or action that a nation or a group of people agrees to follow.

Lenny's facts to learn

The punishment for committing a crime in Rome was not the same for everyone. What punishment you received depended on your status. If you were a wealthy patrician you would receive far less punishment than a slave would for the same crime.

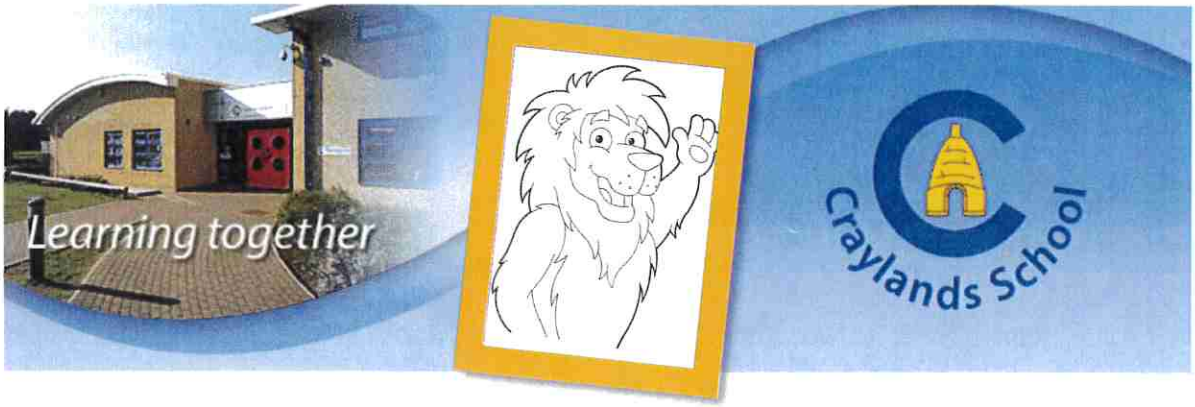
If you were found guilty in Ango Saxon Britain there was always the option of trial by ordeal. Examples of 'Ordeals' were

- Walking at least nine feet on hot coals
- Putting your hand in boiling water to retrieve a stone
- Picking up a red hot iron
- Tied up and thrown into a river

There were no police during the Tudor times. However, laws were harsh and wrongdoing was severely punished. In Tudor times the punishments were very, very cruel. People believed if a criminal's punishment was severe and painful enough, the act would not be repeated and others would deter from crime as well.

The penalty for the most serious crimes would be death by hanging, sometimes in public. However, during the Victorian period this became a less popular form of punishment, especially for smaller crimes, and more people were transported abroad (sometimes all the way to Australia!) or sent to prison instead.

YEAR: 5 TOPIC: Coasts



Lenny's words to learn	
Erosion	**Erosion** is a process where natural forces like water, wind, ice, and gravity wear away rocks and soil.
Arches	A natural **arch**, natural bridge, or (less commonly) rock **arch** is a natural rock formation where an **arch** has formed with an opening underneath.
Tourism	The process of people travelling for fun.
Stacks	A **stack** or sea **stack** is a geological landform consisting of a steep and often vertical column or columns of rock in the sea near a coast, formed by wave erosion.
caves	A **cave** is a natural hollow space under the ground that has an opening large enough for a person to enter.
English Channel	The stretch of water between England and France.
coasts	The **coast** is the place where land and sea meet.
counties	A **county** is a specific region of a country.

Lenny's facts to learn
Coasts, especially those with beaches and warm water, attract tourists. Coasts offer recreational activities such as swimming, fishing, surfing, boating, and sunbathing.
Coasts have changed over millions of years. They are affected by geological events such as volcanic activity, ice ages, and changes in sea levels. Two other factors that affect the shape and type of coast are erosion and deposition.
Erosion at the coast can result in the formation of features such as sea caves, arches, bays, and coves. It can also cause the destruction of land and homes when cliffs fall into the sea.
Water, wind, and ice cause erosion by wearing away rocks or soil.
Deposition is the laying down of materials, such as rocks, stones, gravel, sand, and mud. Sandy beaches, estuaries, sand bars, spits, deltas, and lagoons are the result of deposition.