

Maths at Claycots

Claycots Primary School



www.claycots.co.uk
Town Hall Campus: 01753 531415
Britwell Campus: 01753 521215



Maths team

Ms O'Connor is our Maths Leader at Claycots





The vision for Maths

At Claycots we aim for all pupils to develop a positive and resilient attitude towards mathematics. We ensure that every pupil is given a broad, balanced, engaging and relevant curriculum that considers the requirements of the National Curriculum and any other guidance documents.

We aim to equip children with the skills of calculation, reasoning and problem solving that they need in life, within the school day and beyond, developing an ability in the children to express themselves fluently. We want all children to experience the beauty, power and enjoyment of mathematics and develop.



Subject Intent

At Claycots, we are committed to ensuring that all children are challenged through a rich Maths curriculum, with a high emphasis on securing understanding by carefully sequencing learning to develop pupils' fluency, mathematical reasoning and ability to solve increasingly sophisticated problems. Our maths curriculum aims to help our pupils recognise that mathematics is an interconnected subject in which we want them to be able to move fluently between different representations of mathematical ideas as well as applying their maths knowledge to science and other subjects.



Subject Implementation

At Claycots School, we use a mastery approach focusing on the teaching of: representation & structure, mathematical thinking, variation, fluency and coherence. As a school, our mastery approach is developing each year through our involvement in a number of projects run by the BBO Maths Hub. Lessons are planned and sequenced so that new knowledge and skills build on what has previously been taught. Teachers use White Rose Maths, NCETM and other resources to support their planning and we develop termly overviews to ensure careful sequencing of learning.

Throughout the school, teachers use pedagogical approaches which aim to ensure that all children to view mistakes and misconceptions as an important part of learning. As part of our approach to developing mathematic fluency, in each lesson, children have a times tables focus to give the opportunity to practice and improve rapid recalls of tables linked to their stage of learning. Children work towards the weekly challenge of improving their time and score and have access to their personal account of 'Times Tables Rockstar' which allows them to practice in an engaging and interactive way using an electronic device both at school and at home.

In addition to this, in each lesson, children are given the opportunity to develop their mental Maths skills to improve their efficiency in solving quick calculations. We use our school calculation policy, to ensure a consistent approach in teaching formal methods and use of the CPA approach. Our pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

- Concrete – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.
- Pictorial – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.
- Abstract – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

We ensure that the curriculum is tailored to meet the needs of each child while developing their skills and understanding at an appropriate level. Where possible, links are made with other subjects across the curriculum for children to understand the application of Maths in everyday life.



Maths progression map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting	<ul style="list-style-type: none"> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens 	<ul style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward 	<ul style="list-style-type: none"> count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. 	<ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> use negative numbers in context, and calculate intervals across zero
Place Value		<ul style="list-style-type: none"> recognise the place value of each digit in a two-digit number compare and order numbers from 0 up to 100; use <, > and = signs 	<ul style="list-style-type: none"> recognise the place value of each digit in a three-digit number compare and order numbers up to 1000 	<ul style="list-style-type: none"> recognise the place value of each digit in a four-digit number order and compare numbers beyond 1000 round any number to the nearest 10, 100 or 1000 	<ul style="list-style-type: none"> read, write, order and compare numbers up to 1 000 000 and determine the value of each digit round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 	<ul style="list-style-type: none"> read, write, order and compare numbers up to 10 000 000 and determine the value of each digit round any whole number to a required degree of accuracy
Representing number	<ul style="list-style-type: none"> identify and represent numbers using objects and pictorial representations including the number line, & use language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs 	<ul style="list-style-type: none"> identify, represent and estimate numbers using different representations, including the number line read and write numbers to at least 100 in numerals and in words 	<ul style="list-style-type: none"> identify, represent and estimate numbers using different representations read and write numbers up to 1000 in numerals and in words 	<ul style="list-style-type: none"> identify, represent and estimate numbers using different representations read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value 	<ul style="list-style-type: none"> read Roman numerals to 1000 (M) and recognise years written in Roman numerals recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) 	
Number facts (+/-)	<ul style="list-style-type: none"> given a number, identify one more and one less represent and use number bonds and related subtraction facts within 20 	<ul style="list-style-type: none"> use place value and number facts to solve problems recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 				
Mental +/-	<ul style="list-style-type: none"> add and subtract one-digit and two-digit numbers to 20, including zero 	<ul style="list-style-type: none"> add and subtract numbers using concrete objects, pictorial representations, and mentally, including: $TU+U$, $TU+T$, $TU+TU$ and $U+U+U$ show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot 	<ul style="list-style-type: none"> add and subtract numbers mentally, including: $HTU+U$, $HTU+T$ and $HTU+H$ 		<ul style="list-style-type: none"> add and subtract numbers mentally with increasingly large numbers 	<ul style="list-style-type: none"> perform mental calculations, including with mixed operations and large numbers



How we measure progress

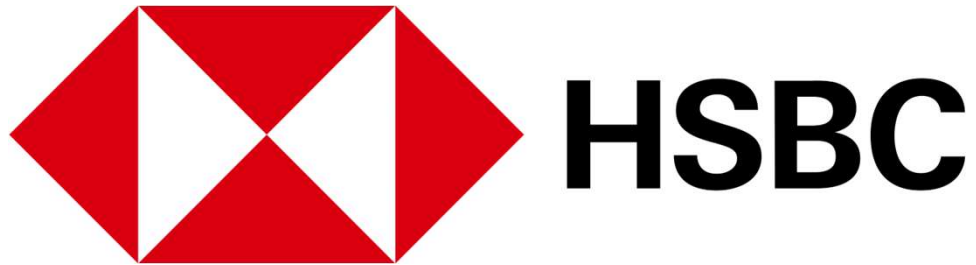
At Claycots we use termly assessments where appropriate to help teachers gather a deeper understanding of their pupil's existing and developing knowledge and skills. This is used by teachers as a diagnostic tool to adapt teaching to meet the needs of all children.

We measure pupil progress on a termly basis and at the end of the year, the expectation is that children achieve Age Related Expectations (ARE) for their year group. Some children may have progressed further and achieve Greater Depth (GD). Those pupils who have been identified as having gaps in their knowledge receive appropriate support and intervention where possible, inside and outside of the usual classroom Maths lesson.

By the end of Year 6, children will have developed a range of efficient skills that can be used to calculate effectively, they will be fluent in the fundamentals of Maths with a conceptual understanding and the ability to recall and apply key facts accurately.



Visits and experiences



Educational Financial lessons
(EYFS, KS1 & KS2)



Weekly Magical Maths Sessions
(KS1/2 after school)



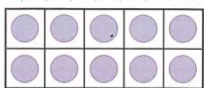


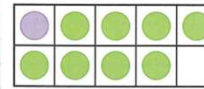
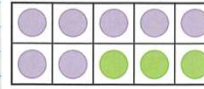

STEM Lego Workshop
(Key Stage 2)

Examples of learning KS1

Year 1

07/02/23 UAS

I can use a tens frame to add on.

$23 + 5 = 28$ ✓

$54 + 23 = 77$ ✓

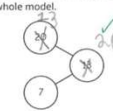
$21 + 8 = 29$ ✓

$8 + 11 = 19$ ✓

$7 + 4 = 11$ ✓

$4 + 7 = 11$ ✓

Kay shows a number bond to 20 in a part-whole model.



What mistake has Kay made?

Kay mistake is that that 20 is the whole

Year 2

Tuesday 21st February 2023

I can tell the time to hour and half past.





Flashback Year 2, Week 4, Day 2

- $\square + 7 = 20$
- Use < or > to compare the number of candies.
- Write forty-two in numerals.
- What shape is this?

Finished?

- $17 + 39 = 56$
- $33 + 69 = 92$
- $13 + 12 = 25$
- $104 - 66 = 40$
- $66 = 19 + 47$

Fluency: Match the clock to the times.

half past 4

half past 1

half past 9

half past 6

Complete the sentence.

At half past, the minute hand points to 6

It is half past 11 so the hour hand should be on the 11

Alex

Is Alex correct?

Explain your reasoning

Examples of learning Lower KS2

Year 3

Handwritten work for Year 3, Lower KS2, showing calculations and problem-solving.

1) Add and subtract capacity and volume

1. Last lesson - The pig has a capacity of 2 litres. How much water did it drink? Explain how you know.

2. Last lesson - The pig has a capacity of 2 litres. How much water did it drink? Explain how you know.

3. Last lesson - The pig has a capacity of 2 litres. How much water did it drink? Explain how you know.

4. Last lesson - The pig has a capacity of 2 litres. How much water did it drink? Explain how you know.

5) Dani has 1 litre 500 ml of juice in a bottle. She pours some of the juice into a jug. How much juice is in the bottle now?

6) Here are some measuring cylinders.

The total liquid in all three cylinders is 400 ml. Cylinder X has half of the total amount in it. Cylinder Y has 67 ml less than cylinder X. How much liquid does each cylinder contain?

$X = 200 \text{ ml}$
 $Y = 133 \text{ ml}$
 $Z = 67 \text{ ml}$

8) A carton can hold 200 ml of milk. A bottle can hold 300 ml of milk.

a) Three milk cartons are emptied into a litre jug. How much milk is there in the jug?

b) How many bottles can be filled by the milk in the jug?

9) Tiny is finding how much more water is in jug N than jug M.

The difference between the volumes of water is 5 intervals, so there is 500 ml more water in jug N.

Do you agree with Tiny? Explain your reasons.

10) Redo question 6. I can't see your working out.

11) Redo question 9.

12) I disagree with tiny because the jugs have different sizes. The jugs have different sizes. One is 1 litre one other is 2 litres.

Year 4

Handwritten work for Year 4, Lower KS2, showing calculations and problem-solving.

1. To compare

a) $0.35 < 0.39$
b) $3.07 < 3.7$
c) $12.94 < 12.49$
d) $1.26 < 1.62$
e) $1.59 < 1.09$
f) $1.23 < 1.89$
g) $2.47 < 2.28$
h) $10.05 < 10.5$
i) $35.5\% < 35.05\%$
j) $19.35 < 19.53$

2. How much money is there?

Write your answer as a decimal.

a) £2.56
b) £1.32
c) £11.08
d) £3.03

3. Look at Rishi's statement.

10p is one hundredth of £1 so 10p is equivalent to £0.01.

Do you agree with him? Why or why not?

No because 10p is 0.10 not 0.01.

4. Dani has £3. Nish has 75p. Huon has £2 and 20p. How much money do they have altogether? Write your answer as a decimal.

5.95

5. Show your working out.

10p is one hundredth of £1 so 10p is equivalent to £0.01.

Do you agree with him? Why or why not?

No because 10p is 0.10 not 0.01.

a) £1 is 100p

Year 5

28.0.25

QM

47 cm ✓

36.0 Oml ✓

39 kg ✓

0.8 m ✓

0.8 1 L ✓

4 32 64 ✓

7 9 35 ✓

7 9 4 2 0 ✓

0 0 1 3 0 0 ✓

4 7 0 7 2 0 ✓

4 3 5 6 ✓

+ 2 3 0 0 ✓

6 6 5 6 ✓

2 3 4 2 5 ✓

- 1 8 7 0 ✓

1 5 5 5

1.1 To convert between different units of

1 min = 60 s

1 hr = 60 min

1 day = 24 hr

1 week = 7 days

1 year = 12 months

1 century = 100 years

1 millennium = 1000 years

2.5 weeks = 17.5 days ✓

4.50 days ✓

6.7 years = 8.4 months ✓

5 minutes = 300 seconds ✓

3 days = 72 hours ✓

14 weeks = 98 days ✓

540 minutes = 9 hours ✓

60 hours = 2.5 days ✓

18 months = 1.5 years ✓

1/2 an hour = 30 minutes ✓

4.5 seconds = 3/4 of a minute ✓

Alex and Jack are converting 52 days into weeks.

Alex: 52 ÷ 7 = 7 R 3

Jack: 52 ÷ 7 = 7 R 3

Who is correct? Jack ✓

Ben and Eva have known each other for 183 days.

How many weeks and days have they known each other?

14 weeks and 5 days ✓

Grace!

29.0.25

AM

Amir ran the race in 14 seconds.

Amir ran the race in 3 minutes and 14 seconds.

Amir ran the race in 187 seconds.

Who was faster? Amir ✓

Show your workings.

3 minutes and 14 seconds = 187 seconds

PSR

603 2000 - 9 = 45

Teddy's birthday is in March.

Amir's birthday is in April.

Amir is 360 days older than Teddy.

What dates could Teddy and Amir's birthdays be?

603 2000 - 9 = 45

Three children are running a race.

Whitney finishes the race in 3 minutes 5 seconds.

Eva finishes the race in 192 seconds.

Alex finishes the race in 2 minutes and 82 seconds.

Who finishes the race first?

Alex 82 = 1 min 22 seconds + 2 min

30.0.25

AM

Whitney 3 min 5 seconds

Eva 192 = 3 min 12 seconds

Alex first at 3 minutes 22 seconds.

Why is Jack correct?

Explain your answer.

Jack is correct because 1 week can be counted in days in a week too.

Amir = 3 min 14 sec

Anne = 187 seconds

Correct!

Baker!

187 = 3 min 7 seconds

Anne is faster by 7 seconds

W = 3 min 5 seconds

E = 192 seconds

3 min 12 seconds

A = 2 min 82 seconds

82 seconds = 1 min 22 seconds

3 min 22 seconds

Year 6

7) Penny is incorrect as b is a side angle not obtuse this means that angle B = 64° ✓
 $28^\circ + 2^\circ + 3^\circ$

Q.M.

1) $123.6 \checkmark$
 56318
 5
 13
 10
 31
 30
 18
 15
 30
 30
 0
 $14.625 \checkmark$
 21285
 8
 48
 48

Answer: 50
 $1.6 \cdot 63 \checkmark$
 42
 20
 16
 40
 40
 00
 $301.714 \checkmark$
 72.12
 21

Answer: 12
 $201.71 \checkmark$
 7
 50
 49
 10

2) 174538

5) $625317 \checkmark$

6) $6536 \checkmark$

7) $2533 \checkmark$

L.T. To use ratio and fractions

V.F.

4) $2436.88 \checkmark$

6) See didn't multiply the same number as to the original ratio:

Egg	Flour
1:3	\checkmark
2:6	
3:9	

R.S.P.

7) Yes Ranyit is correct as they are both in the same time stable. ✓

8) I disagree as 2 is not in the table of 3 it should be 6. ✓

Atta has a box of donuts.
 Three fourths of the donuts are vanilla.
 One quarter of the donuts are chocolate.
 The rest of the donuts are strawberry donuts & 10.3
 There are 10 strawberry donuts.

Decide whether each of the following statements is true or false and PROVE your answer.

There are more vanilla donuts than strawberry donuts. False	There are more strawberry donuts than chocolate donuts. False
There are 40 donuts altogether. True	There are 4 strawberry donuts. True
The total of strawberry donuts & those with False	There are 10 chocolate donuts. True

1) 10 chocolate and 40 donuts altogether is false see.

Q.M.

1) 98935
 81
 83
 81
 125
 18
 7

2) $2196 \checkmark$
 613177
 18
 11
 6
 57
 54
 37
 36
 1
 $64 \checkmark$
 85127
 42
 32
 32
 7

3) 3371
 9105
 81
 100
 81
 115
 189

4) 27

5) 14 correct ✓

6) $830 \checkmark$

P.S.M.

7) 3603 Caleb is incorrect as 120 three times is also 360. all the arrows are add up to get 360 (or add star). ✓

8) I disagree with Jerry. ✓

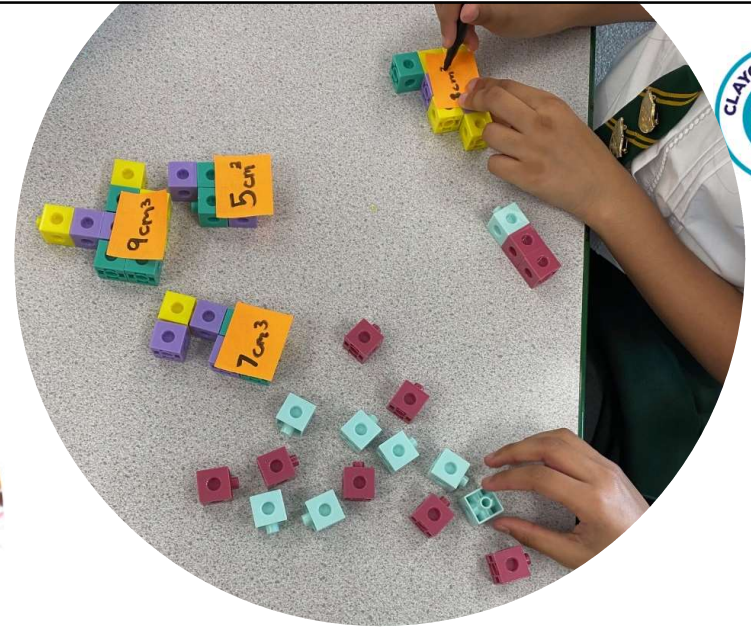
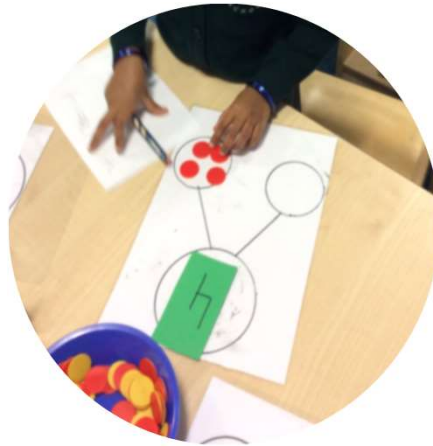
9) I disagree with Jerry. ✓

10) 3603 Caleb is incorrect as 120 three times is also 360. all the arrows are add up to get 360 (or add star). ✓

11) all on expansion you can disagree.

12) I disagree with Jerry. ✓

Practical learning!





Pupil voice

I work with my friends, and we help each other solve difficult problems.
-Year 4, Britwell

The teachers help us because they explain things very clearly.
-Year 3, Britwell

I like adding. When questions get hard, I try to use a different method.
-Year 2, Britwell

Maths in Year 5 is challenging, and it is very fun because we get to learn from our mistakes and use lots of different equipment.
-Year 5, Town Hall

I love using the numicon and cubes to help me count up to 50.
It's so fun.
-Year 1, Town Hall

Maths is really fun in Claycots because it's like a puzzle and we learn a lot about it in greater detail.
-Year 6, Town Hall



Maths Overviews

Nursery

Long term planning



Autumn

Numbers

Songs, Rhymes
Building
Puzzles
Amounts

Week 1-4

**Shape, Space
& Measure**

Size and weight

Week 5-6

Numbers
1-3

Reciting
Objects
Cardinality

Week 7-10

**Shape, Space
& Measure**

Timetables,
routines
Positional
language

Week 11-12

Spring

Numbers
Counting to 5

Week 1-4

Shape
Recognising
Finding shapes
Sorting shapes
Construction

Week 5-6

**Shape, Space
& Measure**
Spatial
awareness
Positional
language

Week 7-8

Numbers
Rote counting
to 5
Ordering

Week 9-10

Measure
Explore size
Weight
Timetables
Sequence of
events

Week 11-12

Summer

Number

Recognise numerals up to 5
Counting objects
Order numbers

Week 1-5

Pattern

Environmental patterns
Patterns on us
Action patterns
Make patterns

Week 6-8

Number

Counting
Recognising numerals
Counting objects and fingers
Ordering numbers to 5
One more to 5

Week 9-12

Reception

Long term planning



Autumn

Number (1–3)

Cardinality 1–3
Subitising 1–3
Rote counting 1–5
Comparing
Composition

Week 1–4

Patterns

AB/ABC patterns

Week 5

Shape, Space & Measure

Compare and measure
size, mass and capacity.
Spatial awareness.
2D shapes

Week 6–7

Numbers (1–5)

Cardinality 1–5
Subitising 1–5
Rote counting 1–10
1 more/1 less
Composition

Week 8–11

Shape, Space & Measure

4-sided shapes
Positional language
Sequence events
Time – calendars

Week 12

Spring

Number

Cardinality 1–10
Subitising 1–5
Rote counting 1–15
Composition 1–10
1 more/1 less/equal
Adding

Week 1–4

Shape, Space & Measure

Comparing objects by
size
Relationships between
shapes

Week 5

Patterns

ABB/ABBC patterns
Patterns around us

Week 6–7

Numbers

Cardinality 1–10
Subitising 1–5
Rote counting 1–20
Composition 1–10
Comparing/estimating
Partitioning
Taking away
Doubling (to 10)
Week 8–11

Shape, Space & Measure

Comparing indirectly
Time durations

Week 12

Summer

Number

Rote counting (30)
Number bonds
Halving & sharing
Odd and even
Taking away

Week 1–4

Measure Time

Measuring
equipment
Clocks

Week 5–6

Number

Number bonds
Oral number problems
Adding by counting on
Adding and taking away

Week 7–10

Shape, Space & Measure

3D shapes
Explore & compare
2D/3D shapes

Week 11

Patterns

Creating patterns
Spotting errors
in patterns.

Week 12

Year 1

Long term planning



Number

Place Value
(within 10)

Week 1-5

Autumn

Number

Addition &
Subtraction
(within 10)

Week 6-10

Geometry

Shape

Week 11

Consolidation
Week 12

Number

Place Value
(within 20)

Week 1-3

Spring

Number

Addition &
Subtraction
(within 20)

Week 4-6

Number

Place Value
(within 50)

Week 7-8

Measurement

Length &
height

Week 9-10

Measurement

Mass and
volume

Week 11-12

Number

Multiplication &
divison

Week 1-3

Summer

Number

Fractions

Week 4-5

Number

Place Value
(within 100)

Week 6-7

Measurement

Money

Week 8

Measurement

Time

Week 9-10

Geometry

Position &
direction

Week 11

Consolidation
Week 12

Year 2

Long term planning



Number

Place Value

Week 1-3

Autumn

Number

Addition &
Subtraction

Week 4-8

Measurement

Money

Week 9-10

Number

Multiplication &
divison

Week 11

Consolidation
Week 12

Number

Multiplication &
divison

Week 1-4

Spring

Statistics

Statistics

Week 5-6

Geometry

Properties
of shape

Week 7-9

Number

Fractions

Week 10-12

Measurement

Length &
height

Week 1-2

Summer

Geometry

Position &
direction

Week 3-4

Consolidation &
problem solving
Week 5-6

Measurement

Time

Week 7-8

Measurement

Mass, capacity
& temperature

Week 9-11

Consolidation
Week 12

Year 3

Long term planning



Number

Place Value

Week 1-3

Autumn

Number

Addition &
Subtraction

Week 4-8

Number

Multiplication &
divison

Week 9-12

Number

Multiplication &
divison

Week 1-3

Spring

Measurement

Length &
perimeter

Week 4-6

Number

Fractions

Week 7-9

Measurement

Mass &
capacity

Week 10-12

Number

Fractions

Week 1-2

Summer

Measurement

Money

Week 3-4

Measurement

Time

Week 5-7

Geometry

Shape

Week 8-9

Statistics

Statistics

Week 11

Consolidation
Week 12

Year 4

Long term planning



Number

Place Value

Week 1-4

Autumn

Number

Addition &
Subtraction

Week 5-6

Measurement

Length &
perimeter

Week 7-8

Number

Multiplication &
divison

Week 9-11

Consolidation
Week 12

Number

Multiplication &
divison

Week 1-4

Spring

Measurement

Area

Week 5

Number

Fractions

Week 6-9

Number

Decimals

Week 10-11

Consolidation
Week 12

Number

Decimals

Week 1-2

Summer

Measurement

Money

Week 3-4

Measurement

Time

Week 5-6

Consolidation
Week 7

Geometry

Properties of
shape

Week 8-9

Statistics

Statistics

Week 10

Geometry

Position &
direction

Week 11-12

Year 5

Long term planning



Number
Place Value
Week 1-3
Autumn

Number
Addition & Subtraction
Week 4-5

Number
Multiplication & division
Week 6-8

Measurement
Perimeter & Area
Week 9-10

Statistics
Statistics
Week 11-12

Number
Multiplication & division Recap
Week 1
Spring

Number
Fractions
Week 2-6

Number
Decimals & percentages
Week 7-11

Consolidation
Week 12

Consolidation
Week 1

Geometry
Properties of shape
Week 2-4
Summer

Geometry
Position & direction
Week 5-6

Measurement
Covertng units
Week 7-8

Measurement
Volume
Week 9

Consolidation
Week 10-12

Year 6

Long term planning



Number

Place Value

Week 1-2

Autumn

Number

Addition, subtraction,
multiplication & division

Week 3-6

Number

Fractions

Week 7-9

Measure

Converting
Units

Week 10

Number

Ratio

Week 11-12

Geometry

Position &
Direction

Week 1

Spring

Number

Algebra

Week 2-3

Number

Decimals

Week 4-6

Number

Fractions, decimals and
percentages

Week 7-8

Measurement

Perimeter, area
& volume

Week 9-10

Statistics

Statistics

Week 11-12

Geometry

Shape

Week 1-2

Summer

Consolidation and
revision
Week 3-4

S
A
T
S

Consolidation, problem
solving and themed
projects
Week 7-12



Maths Vocabulary Progression Map

Claycots School



PLACE VALUE, NUMBERS AND COUNTING						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Numbers 0-20 Ones Count to Count on Count from Number More, less Odd, even Few Pattern Size Big Small Ordinal numbers (1 st) Before, after, next between Part Whole Digit	Counting Ones Tens One more One less Equal to More than Less than Fewer Most Least Ordering Odd, even Numbers one – twenty Forwards Backwards Value Number bonds Column Twos Fives Tens	Numbers 20 to 100 count in steps of Twos Fives Tens Threes Compare Order < less than > more than = equal to Increasing, decreasing identify Represent Representation Estimate Partition Number facts Sequence Two-digit number Greatest value Least value Greatest	Numbers up to 1000 Count in multiples of Fours Eights Fifties Three-digit number hundreds Hundreds block Hundreds column Roman numerals I to xii Consecutive Ascending order descending order	Negative number Positive number above/below zero Minus 1 etc. Decimal number Decimal place Tenths column Hundredths column decimal point One decimal place Two decimal places I to c Thousands Four-digit number thousands column integer Numbers up to 10,000	Count across zero Numbers up to 1 million Five-digit number Six-digit number Tens of thousands Hundreds of thousand Three decimal places thousandths column C to m Powers of 10 Millions	Calculate intervals across zero Numbers up to 10 million Seven-digit number Millions
ESTIMATING AND ROUNDING						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Guess how many Estimate Nearly Close to About the same as Just over Just under Too many Too few Enough Not enough	Roughly	Exact Exactly Near to Nearer to Closer to	Approximate Approximately	Round Rounding round up Round down Nearest 10 Nearest 100 Nearest 1000 Nearest whole number	Nearest 10,000 Nearest 100,000 Nearest tenth To one decimal place	Nearest million Nearest hundredth To two decimal places Degree of accuracy
ADDITION AND SUBTRACTION						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Add More Make Total Altogether Double One more Two more How many more to... How many more is... Take away Less How many are left... How many have gone... One Less Two less How many fewer is...	+ sign Addition Put together Sum Near double Is the same as Missing number Number bonds = equals sign Number sentence Sign Operation Total Subtraction Take away Distance between Difference between Equals More than Greater than Less than Zero Counting forwards	Method Exchange Put together Combined Calculate Solve Calculation Sums Inverse Equal to each other Strategy Number line Jumps Tens Ones Product Smaller Greater	Carrying Exchanging Expanded Compact Commutative law Find the difference Column addition column subtraction inverse operations Mental operations	Near multiple Distributive law Column addition column subtraction inverse operations mental operations two-step problem	Column addition column subtraction inverse operations mental operations rounding Accuracy Multi-step problems	Four operations



	Counting backwards					
MULTIPLICATION AND DIVISION						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Double Half Halve Pair Sharing Share out Groups	Grouping Sharing multiplying dividing Doubling Arrays Number patterns count in twos count in fives count in tens	Lots of X sign Multiplying Dividing ÷ sign Share equally Equal groups Odd Even Multiple of Once, twice, three times, ten times.. Repeated addition Row Column Multiplication fact Calculate Solve Product Calculation Commutative Arrays Mental methods inverse operations	Partitioning Column method Short multiplication Short division Expanded Scaling Correspondence Commutative law Mental method integers Divisor Left over	Factor pair Commutativity Short multiplication Short division Distributive law Mental method inverse operations Integers Short division Short multiplication Factor Factor of Dividend Divisible by	Long multiplication expanded Long multiplication compact Square number Squared, x^2 Cube number Cubed, x^3 Square root Cube root Multiples Factors Factor pairs Common factors Prime numbers Prime factors Composite (nonprime) numbers Rates	Order of operations Common multiples Scale factor Factor pairs Common factors Prime numbers Prime factors Composite (nonprime) numbers Remainders Common multiples Brackets
FRACTIONS, DECIMALS AND PERCENTAGES						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Half Part Whole	A half Equal parts A quarter A whole	A half A quarter A whole Equal parts A third Two quarters Three quarters Equivalence	Tenths Equal parts Fractions Unit fractions Non -unit fractions Denominator Numerator A half A quarter A whole Equal parts A third Two quarters Three quarters Equivalence	Tenths Hundredths Equal parts Fractions Unit fractions Non -unit fractions Denominator Numerator Equivalence Equivalent fractions Decimal number Decimal point	Unit fractions Non -unit fractions Mixed number fractions Improper fractions Proper fractions Denominator Numerator Equivalence Equivalent fractions Decimal number Decimal point Per cent Percentage	Unit fractions Non -unit fractions Mixed number fractions Improper fractions Proper fractions Denominator Numerator Equivalence Equivalent fractions Decimal number Decimal point Per cent Percentage
MEASURE: LENGTH/DISTANCE, TIME, MASS, CAPACITY/VOLUME, MONEY, TEMPERATURE						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measure Size Compare Guess Estimate Enough/Not enough Too much/Too little Too many/Too few Tall/Taller/Tallest Long/Longer/Longest Short/Shorter/Shortest Time Days of the week Morning Afternoon Evening Night Times of the day Today, yesterday, today Hour Watch Clock Hands O'Clock Weight Balances	Length Height Compare Long Short Longer Shorter Tall Double Half Mass Weight Heavy Light Heavier than Lighter than Capacity Volume Full Empty Half full Quarter full Time Quicker Slower Earlier Later	Estimate Length Height Meters Centimetres Mass Kilograms Grams Temperature Capacity Litres Millilitres Rulers Scales Thermometers Measuring vessels Compare Order Volume Pounds Pence Coins Money Change Sequence Time	Estimate Measure Length Height Meters Centimetres Millimetres Mass Kilograms Grams Temperature Capacity Litres Millilitres Rulers Scales Thermometers Measuring vessels Compare Order Volume Pounds Pence Coins Money Change	Estimate Measure Length Height Meters Centimetres Millimetres Mass Kilograms Grams Temperature Capacity Litres Millilitres Rulers Scales Thermometers Measuring vessels Converting measurements Perimeter Rectilinear figure Area Pounds Pence Analogue clocks Digital clocks Hours	Estimate Measure Metric measurements Imperial units Inches Pounds Pints Length Height Meters Centimetres Millimetres Mass Kilograms Grams Temperature Capacity Litres Millilitres Rulers Scales Thermometers Measuring vessels Converting Measurements Perimeter Rectilinear figure Irregular shapes	Estimate Measure Metric measurements Imperial units Inches Pounds Pints Miles Length Height Meters Centimetres Millimetres Mass Kilograms Grams Temperature Capacity Litres Millilitres Rulers Scales Thermometers Converting measurements Perimeter Rectilinear figure Irregular shapes



Heavy/Heaviest/Heavier Light/Lightest/Lighter Full/Half full Empty Container Money Coin Penny Notes Pence Pounds Price/cost/sell/buy/spent	Hours Minutes Seconds Coins Notes Money Before After Next First Today Yesterday Tomorrow Morning Afternoon Evening Ruler Weighing scales Days of the week Months of the year Hour O'clock Half past	Clock Five minutes Minutes Quarter past Quarter to Half past O'clock Hour Day	Analogue clock Roman Numerals Seconds Minutes Hours O'clock A.M P.M Morning Afternoon Noon Midnight Leap year Each month of the year	Minutes Seconds Years Months Weeks Days	Irregular shapes Area Pounds Pence Analogue clocks Digital clocks Hours Minutes Seconds Years Months Weeks Days Scaling	Area Pounds Pence Analogue clocks Digital clocks Hours Minutes Seconds Years Months Weeks Days Scaling
---	---	---	--	--	--	--

GEOMETRY: GENERAL

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Shape Pattern Hollow Solid Size Bigger, Larger, Smaller, Symmetrical Pattern Repeating Pattern	Point Pointed Identify	Symmetry Symmetrical Mirror Line Reflection Fold Horizontal Vertical Diagonal	Parallel Perpendicular	Construct Draw Complete Classify		

GEOMETRY: POSITION AND DIRECTION

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Position Over Under Above Below Top Bottom Side On In Outside Inside Around In Front Behind Front Back Before After Beside Next To Opposite Left Right Up Down Forwards Backwards Sideways Across Towards Away From	Whole turn Half turn Quarter turn Left Right Top Middle Bottom On top of In front of Above Between Around Near Close	Patterns Sequences Straight line Rotation Turn Right angles Position Direction Movement Whole turn Half turn Quarter turn Left Right		Coordinates Quadrant Left Right Up Down Axes X-Axis Y-Axis Axes Translation Translate Units Plot Points Vertices Vertex	Coordinates Quadrants Vertices Vertex Left Right Up Down Axes X-Axis Y-Axis Translation Translate Reflection Horizontal Vertical Translation Plot Points Vertices Vertex	Coordinates Coordinate plane Quadrant Left Right Up Down Axes Reflection Translation Opposite



GEOMETRY: PROPERITES OF SHAPE

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cube Sphere Cone Face Edge 3D Corners Circle Triangle Square Rectangle 2D Flat Corners Sides Curved Round Pointy	2D shapes Rectangle Square Circle Triangle 3D shapes Cubes Cuboids Pyramids Spheres Straight Curved Flat Corners Sides	2D shapes Properties of shapes Sides Line of symmetry Vertical line 3D shape Edges Vertices Vertex Faces Rectangle Square Circle Triangle Cube Cuboid Pyramid Sphere	2D shapes Properties of shapes Sides Line of symmetry Vertical line Horizontal line Perpendicular line Parallel lines 3D shape Edges Vertices Vertex Faces Rectangle Square Circle Triangle Isosceles triangle Equilateral triangle Scalene triangle Cube Cuboid Pyramid Sphere Angle Right angle Acute angle Obtuse angle Polygon	2D shapes Properties of shapes Sides Line of symmetry Vertical line Horizontal line Perpendicular line Parallel lines 3D shape Edges Vertices Vertex Faces Rectangle Square Circle Triangle Isosceles triangle Equilateral triangle Scalene triangle Cube Cuboid Pyramid Sphere Angle Right angle Acute angle Obtuse angle Protractor Polygon Quadrilateral Parallelogram Rhombus Trapezium Regular polygon Irregular polygon	2D shapes Properties of shapes Sides Line of symmetry Vertical line Horizontal line Perpendicular line Parallel lines 3D shape Edges Vertices Vertex Faces Rectangle Square Circle Triangle Isosceles triangle Equilateral triangle Scalene triangle Cube Cuboid Pyramid Sphere Angle Right angle Acute angle Obtuse angle Reflex angle Protractor Degrees Polygon Quadrilateral Parallelogram Rhombus Trapezium Regular polygon Irregular polygon Diagonal	2D shapes Dimension Properties of shapes Sides Line of symmetry Vertical line Horizontal line Perpendicular line Parallel lines 3D shape Net Edges Vertices Vertex Faces Rectangle Square Circle Radius Diameter Circumference Isosceles triangle Equilateral triangle Scalene triangle Cube Cuboid Pyramid Sphere Angle Right angle Acute angle Obtuse angle Reflex angle Protractor Degrees Polygon Quadrilateral Parallelogram Rhombus Trapezium Regular polygon Irregular polygon Diagonal

STATISTICS

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Count Sort Vote Group List	Pictogram Tally chart Block diagram Table	Pictogram Tally chart Bar charts Table Two-way tables Frequency	Pictogram Tally chart Bar chart Table Time graph Scale	Line graph Timetables	Pie chart Line graph Average Mean variables Data

ALGEBRA

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Missing number	Inverse Arrange Combine Combinations	Integer scaling	Express Formula		Formulae Algebra Unknown values Variable Equivalent expression

RATIO AND PROPORTION

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Proportion in every for every (<i>linked to fractions</i>)	Scaling	Proportion Ratio Recipe Pie chart Scale drawing Scale factor