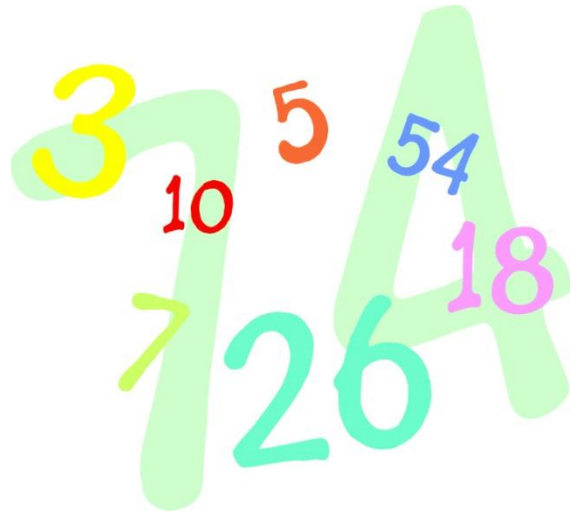


The Colleton Primary School

Maths in The Older Team



A booklet for parents

Help your child with mathematics

The following is an overview of some of the topics which children will cover in the Older Team. It is important to note that this is by no means a comprehensive guide and that coverage is tailored to each particular cohort of children, supporting them where necessary and extending them where they show a particular aptitude.

During the two years in the OT, we cover the following skills, knowledge and understanding in maths:

- Know what the digits in whole numbers to 1,000,000 and in a decimal number stand for e.g. the 6 in 2.63 stands for 6 tenths and the 3 for 3 hundredths
- Round numbers with up to 2 decimal places to the nearest whole number e.g. 9.7 rounds up to 10, 147.29 rounds down to 147
- Use knowledge of place value to partition and order whole and decimal numbers e.g. $641 = 600 + 40 + 1$
- Recognise fractions, find equivalent fractions, decimals and percentages e.g. $\frac{6}{12} = \frac{1}{2} = 0.5 = 50\%$
- Extend understanding of fractions, simplifying e.g. $\frac{4}{20}$ to $\frac{1}{5}$ and working out which of two fractions is bigger e.g. $\frac{7}{12}$ or $\frac{2}{3}$
- Solve simple problems involving direct proportion by scaling quantities up or down e.g. $40 : 20$ is the same as $2 : 1$
- Use knowledge of place value and addition and subtraction of two-digit numbers to work out sums, differences, doubles and halves of decimals e.g. $6.5 +$ or $- 2.7$, half of 5.6, double 0.34, extending to up to three decimal places
- Know by heart all multiplication tables up to 12×12 and use this for division e.g. $63 \div 7 = 9$, $4.8 \div 6 = 0.8$
- Double numbers up to 100 in their heads

- Identify pairs of factors (e.g. 24's factors are 1 and 24, 2 and 12, 3 and 8, 4 and 6) of two-digit whole numbers and find common multiples (e.g. 18 is a multiple of 1, 2, 3, 6, 9, 18), extending to squares of numbers up to 12×12
- Recognise that prime numbers have only two factors and identify prime numbers less than 100 (e.g. the prime number 7 has only factors of 1 and 7)
- Work out in their head the difference between two numbers such as 3994 and 9007
- Use pencil and paper to add and subtract big numbers e.g. $5792 + 8436$, $13,912 - 5829$ and decimals with up to two places e.g. $17.34 +$ or $- 8.29$
- Multiply and divide any whole number up to 10,000 by 10 or 100, extending to multiplication and division of decimals e.g. 2.61×10 , $53.2 \div 100$
- Use pencil and paper to multiply and divide e.g. 328×4 , 72×56 , $329 \div 6$, extending to multiplication and division of decimals e.g. $307.6 \div 4$
- Use division to find a fraction of a number e.g. find one fifth by dividing by 5
- Extend understanding of percentages to working out percentages of amounts e.g. 25% of £90 is £22.50
- Read and plot co-ordinates in the first quadrant (extending to all four quadrants), including where a shape will be after reflection, translations or rotations through 90° and 180°
- Estimate angles and use a protractor to measure them
- Use a set-square and ruler to draw shapes with perpendicular and parallel lines
- Identify and describe the properties of common 2-D and 3-D shapes
- Identify and draw nets of common 3-D shapes
- Draw and measure lines to the nearest millimetre

- Select and use standard metric units of measure and convert between units e.g. change 2.75l to 2750ml and vice versa
- Read and interpret scales on a range of measuring instruments
- Work out the perimeter and area of a rectangle e.g. the perimeter and area of a book cover measuring 25cm by 20cm
- Calculate the perimeter of regular and irregular polygons
- Read timetables and time using analogue and digital notation
- Draw frequency tables, pictograms, bar and line graphs to show frequencies of events and changes over time, extending to the understanding and use of information in graphs, charts and tables
- Solve word problems and explain their methods
- Explore patterns, properties and relationships and propose a general statement e.g. the sum of two odd numbers is even
- Systematically record information, using symbols where appropriate.

Suggestions you could try at home

Explore mathematical vocabulary in conversation...

Shopping:

- Managing pocket money
- Packets of cakes, 10 in each. How many packets would I need to buy for 24 children?
- Change expected from a purchase
- Price comparisons: e.g. is a pack of 12 buns cheaper than two packets of 6 buns?

Cooking:

- Look at intervals on a scale (needs to be metric, but good to have an

awareness of imperial measurements e.g. 2 pounds roughly to a kilogram)

- Conversion of units e.g. kilograms to grams
- Organisation - collecting ingredients and equipment
- Sequential processing - what must I do first, next etc.
- Estimation - roughly how much is 100g flour or 100ml milk?
- Following instructions

Height charts: need to be metric i.e. centimetres and metres, but good to have an awareness of imperial measurements e.g. 180cm is approx 6 feet

Temperature:

- Watch weather forecast - note changes between am and pm (work in Celsius)
- Use temperature to investigate negative numbers

Journey distances: look at maps (work in kilometres).

Time:

- Get up/go to bed/mealtimes/time for reading + associated analogue and digital clock times
- How many days/sleeps to holiday/birthday etc
- Look at calendars
- TV programme - give start and end times. How long is it on for?
- Use timetables to calculate time intervals
- If it starts at ___, when will it finish?

Measures:

- Look at common objects around the home and gain an understanding of their height, size, weight or volume.

- Ask how wide the TV is in centimetres, measure it and compare with the estimate.
- Ask how long the lounge is in metres, measure and compare.
- Ask how heavy the kettle is, weigh and compare with estimate.
- How much liquid does a teacup hold?
- How tall is the fridge, etc?

Real life:

Understand numbers relating to everyday life :

- How much does a car cost?
- How tall is/are Mum/Dad?
- How many litres of water half fills my bath?
- How far is it from my home to school?

Games: a few suggestions:

- Dominoes
- Monopoly
- Scrabble - counting up word score
- Hopscotch
- Sudoku
- Card games e.g. cribbage, pontoon etc
- Connect 4
- Snakes and Ladders
- Any dice game e.g. Yhatzee
- Countdown
- Darts

Need to know off by heart :

- Tables to 12
- Number bonds to 20 and related facts e.g.
 - o doubles of any number up to 50
 - o halves of even numbers from 0 - 100
- Time e.g. months of year
- Units of measure e.g. mm/cm/m/km, ml/l, g/kg etc
- Right angle = 90° , acute angle = less than 90° , obtuse angle = greater than 180°