

## A PARENTS' GUIDE TO MATHS IN THE CURRICULUM

## CURRICULUM INNOVATION GROUP




## Calculations

I can add and subtract numbers with up to 3-digits using the formal written methods of columnar addition and subtraction.

$$
236
$$

$+73$
$\frac{309}{1}$


Subtract on an empty number line (ENL) by counting on
E.g. $85-37=48$


Begin to use formal column subtraction method, first using 'friendly numbers'.


I can estimate and use fact families (inverse operations) to check answers in a calculation.

$$
\begin{aligned}
& 66+34=100 \\
& 34+66=100 \\
& 100-34=66 \\
& 100-66=34
\end{aligned}
$$



I can add and subtract numbers mentally, including:
i. a three-digit number and 1 s
ii. a three-digit number and 10s
iii. a three-digit number and 100s

For example,
What is $234+7$ ?
What is 985-6?
What is $789+10$ ?
What is 305-10?

What is $951+100$ ?
For added challenge, try examples which cross a tens, hundreds or thousands barrier.

Try this when dealing with larger numbers in real life contexts such as baking.

What is $678-100$ ?



I can write and calculate mathematical statements for multiplication and division using times tables, including for two-digit numbers times one-digit numbers

## Example without remainder:

$40 \div 5$
Ask "How many 5s in 40?"


Example with remainder:
$38 \div 6$


Then progress onto formal written methods...

Short division: Limit numbers to NO remainders in the answer OR carried (each digit must be a multiple of the divisor).

Remind children of correct place value, that 96 is equal to 90 and 6 .

Try using any of the calculation strategies above to solve real life problems.

When shopping, calculate the cost of a number of items or how much change you will receive.

Try emptying piggy banks and purses to find how much money is already saved and how much more your child needs to buy the next treat!

When baking, calculate the total weight of ingredients.


## Number, Place Value and Fractions

I can count from 0 in multiples of 4, 8,50 and 100
Practise counting in multiples with your child, perhaps whilst passing a ball (eg, 4, 8, 12, 16...)

## I can read and write numbers up to 1,000 in numerals and in words

Look out for larger numbers in real life such as prices of larger household items, holiday prices, distances when travelling on holiday, amounts of grams or millilitres when cooking and baking.
Encourage your child to read the whole number aloud, eg, 965 is nine hundred and sixty five.

## I can order and compare numbers up to 1,000

When looking at larger numbers in real life contexts, compare two or more numbers, deciding which is bigger or smaller. Try putting a range of prices in order, for example when writing a wish list of toys, can you order them from cheapest to most expensive?

I can find 10 or 100 more or less than a given number
When looking at larger numbers in real life contexts, ask your child which number is 10 or 100 more or less. For example, what is 10 more than 365 g?

For an extra challenge, try examples which cross the hundreds barrier. For example: What is 10 more than 295 ml ? What is 100 more than 950 g ?

I can recognise the place value of each digit in a 3 -digit number (100s, 10s, 1s)

When looking at larger numbers in real life contexts, ask your child what the place value of each digit is, eg, in 386 - what is the 3 worth? 3 Hundreds.


I can recognise, find and write fractions of a set of objects

| Unit Fractions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| of Quantities |  |  |  |  |
| $\frac{1}{6}$ of 48 |  |  |  |  |
| divide by the denominator |  |  |  |  |
| divide by 6 |  |  |  |  |
| :\% |  | - $\because \because:$ |  | $\because:$ |
| $48 \div 6=8$ |  |  |  |  |
| $\frac{1}{6}$ of $48=8$ |  |  |  |  |
| $0-$ |  |  |  |  |

Use times tables to help with division skills.
Try finding a half, a third, a quarter, a fifth or a tenth of a group of objects.

For example, what is one third of these grapes? How many raisins would there be in half of the box?


## Measurement

I can measure, compare, add and subtract: length ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $1 / \mathrm{ml}$ )
Practical home activities such as baking and model making are a brilliant opportunity for becoming familiar with units of measure. You could also try measuring jumps and throws in the back garden.

Try exploring the weight and capacity of items in your trolley at the supermarket and compare which items are heavier etc. As a challenge, investigate different shaped containers which all have the same capacity, eg, 1 litre.


Try using different measuring jugs, rulers and weighing scales to explore reading a variety of scales and then compare which amounts are larger or smaller than one another.
As a challenge, try adding or subtracting different quantities or even convert between mm and cm (by $x$ or $\div$ by 10 ).

I can tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
Look at a range of analogue clocks at home or when out and about and discuss the use of Roman numerals instead of numbers on some clocks.
Use analogue clocks to help with planning a day out or when getting ready to leave the house by a certain time.
Perhaps consider giving your child an analogue watch to wear!

I can estimate and read time with increasing accuracy to the nearest minute;
I can record and compare time in terms of seconds, minutes and hours;
I can use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight
Use analogue and digital clocks to help with telling the time and discuss the differences between 12 and 24 hour clocks and when am or pm is needed.
Discuss how noon and midnight would appear differently on a 12 or 24 hour clock.
Try encouraging your child to accurately read the time to the nearest minute when making a timetable of daily routines and chores around the house.
Take part in a family countdown to Christmas and discuss how many weeks, days or hours there are to go!
http://www.xmasclock.com/


I know the number of seconds in a minute and the number of days in each month, year and leap year


Use the knuckle trick to help learn the number of days in a month:


## I can compare durations of events

Compare how long regular family activities take in comparison to one another, for example, brushing your teeth, attending a club, having a quick breakfast or sitting down to a family meal.
Try using the vocabulary of seconds, minutes and hours to help compare events.


## Properties of Shapes

I can draw 2-D shapes and make 3-D shapes using modelling materials I can recognise 3-D shapes in different orientations and describe them


I can identify right angles, recognise that 2 right angles make a half-turn, 3 make three quarters of a turn and 4 a complete turn:
Have fun playing treasure hunt games or Easter egg hunts where instructions are given for finding the treasure! E.g. Two right angle turns to the left.

I can identify whether angles are greater than or less than a right angle


Why not try making an 'angle-eater' and use it to explore right angles in 2D shapes and 3D objects around the home?
http://www.leics.gov.uk/angle_eaters.doc

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
Look for examples of parallel and perpendicular lines in the environment, for example on gates and on sports courts.


Explore different types of jumps - Vertical - High Jump
Horizontal - Long jump, triple jump


Why not have a go?


To see the whole of your child's Year 3 curriculum, use the following link:

## The National Curriculum for Mathematics

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335158 /PRIMARY_national_curriculum_-_Mathematics_220714.pdf

## Websites that are useful:

http://resources.woodlands-junior.kent.sch.uk/maths/
http://www.kidsmathgamesonline.com/


