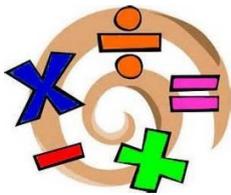# Learn Its

Year 4   Spring term

The aim of these **'Learn Its'** which are focused on in school and for **Home Learning** is to give the children **regular** but **short practice** at key maths facts. Some of the facts may seem quite basic, but this practice will help them develop their **confidence** and **recall**, which will help them **apply** them in their maths learning.

Wherever we can we want to make this **practice fun** and **practical**. Please feel free to make up your own games / activities, or adapt / swap the ones suggested below. We also need lots of opportunities to **talk** about the maths and to show that we as adults **enjoy** it too.

Count in multiples of 6, 7, 9, 25 and 1000.

- "Times tables tennis". As a pair take it in turns saying the multiples of one of the numbers back and forth. *This can be done whilst also throwing, kicking or hitting a ball or balloon between you.*
- "Odd one out". Write a list of the multiples for one of the numbers but include an incorrect one. Can your child spot the odd one out? Can they explain why?
- "Re-arrange and missing" Write all except one of the multiples from x1 to x10 for one of the numbers above on a piece of paper (or smaller separate pieces of paper). They have to be arranged in order to spot the missing multiple.
- When you have a couple of minutes spare ask your child to count aloud forwards and backwards using one of the numbers above

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Solve two-step problems in contexts.

- Two-step problems involve two mathematical operations (+ - x ÷)
  (e.g. you might add two number and then take that total away from a larger number or you might add two numbers before dividing the total between a different number)

- "Mental maths shopping" (e.g. add 2 or 3 numbers and then take the total from a certain note (e.g. £5, £10 or £20). E.g. when buying 2 or more of the same item, multiple the cost by the number of item and then either add another item's cost or subtract it from a certain note)
- "Party or picnic planning" Plan the numbers of invites, food, party bags (and contents)… needed for a birthday party. When going on a family picnic work out how much of each food you will need (including the litres of drink (capacity) and divide the amounts by the number of people coming) (for both of these you could calculate some costs as well)

Multiply two-digit and three-digit numbers by a one-digit number.
- Try to find times in real life when this needs to be done, as it makes it more purposeful for your child.
- Ask them to estimate it mentally
  (e.g. 28 x 7 becomes 30 x 7. I know 3 x 7 = 21 so 30 x 7 = 210)
- Ask your child to show and explain it to you in the different ways they might do it at school (numberline, grid method, short formal method (column method).

Recognise and show, using diagrams, families of common equivalent fractions.
- When you come across a fraction in real life
  (e.g. cutting a large piece of food into a certain number of pieces, or sharing an amount of objects into a certain number of groups) discuss what fraction it is. Ask your child to draw the fraction and write it's name. Looking again at their drawing, could they split each section into two equal pieces: what fraction have they now? What if they had split each section into three? Write the new fractions. Can they explain why they are equivalent? Can they work out any other fractions that are equivalent to the first one? Can they spot a numerical pattern (e.g. 1/3   2/6   3/9   4/12   The numerator (top number) goes up in 1s the denominator (bottom number) goes up in 3s).

Add, recognise and write decimal equivalents of any number of tenths or hundredths.

- "Dice roll" Roll two dice. Imagine the numbers are tenths (or hundredths) and add them together. Help your child understand it is the same as adding a pair of units, tens or hundreds. *(e.g. 3 units + 5 units = 8 units so 3 tenths + 5 tenths = 8 tenths and 3 hundredths + 5 hundredths = 8 hundredths)*
- When out shopping or measuring objects around the house *(two of the most common uses of decimals in the real world)* show that the first number after the decimal point is in the tenths column and the second number is in the hundredths column.
  (E.g. £1.53 : 50p is 5/10 of £1 as 10 lots of 10p make £1 and 3p is 3/100 of £1 as 100 lots of 1p make £1)
- "Matching pairs" In a pair one person writes a tenth or hundredth as a fraction and the other has to write is as a decimal (or vica versa). *(E.g. 0.2 = 2/10 or 8/100 = 0.08)*

Round decimals with one decimal place to the nearest whole number.

- Draw a numberline from 0 to 1 with the tenths marked in decimals. With their eyes closed your child puts their finger on the numberline. They read the decimal number and then say whether it is closer to 0 or 1 *(remember if it is on 0.5 it is rounded up to 1)*
- 10ps to the £. Put out a certain number of 10ps. What is the total? Is it closer to £1 or £0?
- Shopping estimating. When buying a few items from a local shop, show how rounding can help you work out approximately how much the shop will cost. For each item discuss which is the pound it is nearest to. Add these rounded numbers together as you collect each item and predict together what the total cost is going to be close to. How close do you get?

Read, write and convert time between analogue and digital 12- and 24-hour clocks.

- Stop at various points in the day and ask your child to read the time either from a clock with hands or a 24 hour digital clock. *(They should practice being able to read time to the nearest minute)*
- Practice converting time when read at these points from 12 hour to 24 hour *(e.g. if it is 10 minutes past 3 in the afternoon = 3.10 pm = 15:10)*

**Interpret and present discrete and continuous data on bar charts.**
- Discuss graphs and charts when you come across them in real life *(e.g. magazines, online, sports statistics…)*. Ask what information the graphs are giving? Do they show changes over time? What questions could we ask that these graphs could help answer? What questions could they not help answer which we would like them to?

Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- Find objects in the house with 4 sides (quadrilaterals). How are they the same and how are they different? How could we group them?
  (In Year 4 children are expected to know: square, rectangle, parallelogram, rhombus, kite and trapezium)
- Repeat above for triangles
  (In Year 4 children are expected to know: equilateral, isosceles and scalene)
- Look at online pictures of 2D shapes for Key Stage 2 and make a poster of these shapes with their properties *(numbers of sides, number of corners, lines of symmetry, turns of rotational symmetry, any specific size of angles)*

Bar Model

Any number (e.g. 5, 1000, 1…)				

Array

an arrangement of a set of numbers or objects in rows and columns
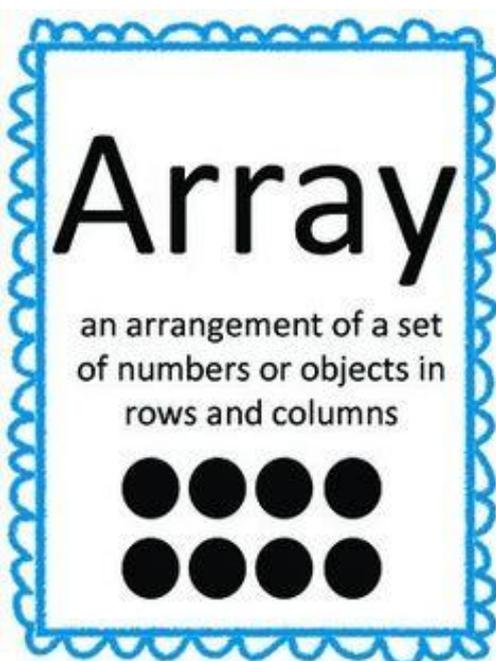
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100