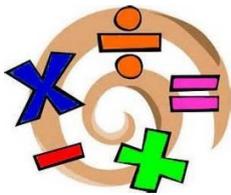# Learn Its

Year 3   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.

Recognise the place value of each digit in a three-digit number.
- Roll a dice 3 times or pick 3 cards at random. Use the numbers to make the largest and smallest 3 digit number possible. Say or write down what each digit is worth *(e.g. 472 is 400 + 70 + 2 or 4 hundreds, 7 tens and 2 units)*
- When reading a book (page numbers) or when out shopping (prices) discuss the value of the digits in 3-digit numbers
- "What number am I?" Give your child the value of each digit but out of order, can they write the number correctly. *(e.g. I have 3 tens, 8 units and 4 hundreds. 438)*

Find 10 or 100 more or less than a given number.
- When playing an online game or watching sport discuss what the score would be if it was 10 or 100 more or less
- When reading a book (page numbers) discuss what page number you will reach in 10 or 100 pages. When out shopping (prices) discuss how much something might cost if it was £10, £100, 10p or 100p more or less
- Use a 100 square to show easy ways of adding or subtracting 10 by moving up or down a row. That the units value doesn't change.

Estimate the answer to a calculation and use inverse operations to check answers.

- When asked to add or subtract, round numbers to the nearest 10 or 100 before estimating (which should then be able to be done quickly in your head). *(e.g. 47 + 92 becomes 50 + 90 = 140) (e.g. 782 – 311 becomes 800 – 300 = 500)*
- When asked to multiply or divide think about times tables facts you know as well as rounding. *(e.g. 22 x 7 becomes 20 x 7. I know 2 x 7 = 14 so 20 x 7 = 140) (e.g. 72 ÷ 6 becomes 60 ÷ 6 = 10)*
- "I know...so..." When given a number sentence, find the 3 other possibilities. *(E.g. I know 58 + 74 = 132. So 74 + 58 = 132, 132 – 74 = 58 and 132 – 58 = 74) (E.g. I know 56 ÷ 4 = 14. So 56 ÷ 14 = 4, 14 x 4 = 56 and 4 x 14 = 56)*

Write and calculate mathematical statements for multiplication and division using known multiplication tables.

- "I know...so.." As above using the x3, x4 and x8 tables (learnt in Year 3) and x2, x5 and x10 tables (learnt in Year 2)
- Also practice multiplying known facts by 10. *(E.g. 3 x 7 = 21 so 30 x 7 = 210 and 3 x 70 = 210) (E.g. 24 ÷ 4 = 6 so 240 ÷ 4 = 60 and 240 ÷ 6 = 40)*

Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts.

- Recognise that a tenth (1/10) is a fraction. Do this practically by folding and cutting paper, cutting food object like a slice of bread, cake or pizza...
- Label the pieces of paper and then count them: " 1/10, 2/10, 3/10... Recognise that when you reach 10/10 you have a whole or 1.
- With food such as sandwiches, cake or pizza tenths could be used verbally when sharing it out *(e.g. you have had 4 tenths of a pizza, I have had 3 tenths and there are 3 tenths left)*

Compare and order fractions with the same denominators.

- Using some paper squares, rectangles or circles: fold and draw lines to split then all into the same fraction *(e.g. fifths: 5 equal sections)*. Then colour in different amounts of fractions on each sheet. Can you then put them in order from the smallest to the largest amount (or vica-versa)
- Could you write these in the correct place on a numberline which starts at 0 and ends at 1?
- Play online games

Record and compare time in terms of seconds, minutes and hours.

- Discuss and time how long certain real life activities take *(e.g. playing a game, watching a programme, scooting to the park, driving to a friend or family member's house…)*. Which is the best unit of measurement to use (seconds, minutes, hours? *Hopefully not days!)*
- Find other activities that can be done in less than a minute *(e.g. 10 skips with a rope, running from one end of the park to another, tying a shoelace…)*. Time how long it takes for your child to complete the activity. Then try again and see if they can beat their record.
- When watching athletics, swimming, cycling… discuss how important times are. Discuss what a 'Personal Best' is, and why people are often motivated to go faster and improve their time.

Tell and write the time from 12-hour 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. *(It may be worth starting with o'clock, half past and quarter to and past. However by the end of Year 3 they should be 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)*

Measure the perimeter of simple 2-D shapes.

- Practice measuring real objects at home. Estimate which of a set of objects you think will have the smallest and largest perimeter. Measure each side and add the measurements together.
- Discuss whether they need to measure every side if the object is a square or rectangle


Recognise angles as a property of shape or a description of a turn.

- When looking at objects / shapes at home identify which are right angles (90 degrees). Which are smaller angles (acute)?
- "Blindfold journey" One person wears a blindfold whilst another person direct them from room to room at home using instructions including "1 step forward" "quarter turn left" "quarter turn right" "half turn" *(recognising that a quarter turn is a right angle and a half turn is two right angles)*
- Play "2Code" and "LOGO" on Purple Mash, or other online coding games such as Scratch or Scratch Junior

Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

- When looking at furniture and pictures at home… buildings and signs when out and about… spot the lines that are horizontal and vertical.
- Similarly spot pairs of perpendicular lines (a pair of lines that meet in a right angle) and parallel lines (a pair of lines that stay the same distance apart, *e.g. double yellow lines when parking: always a good example to spot!*)

Bar Model

Array

an arrangement of a set of numbers or objects in rows and columns

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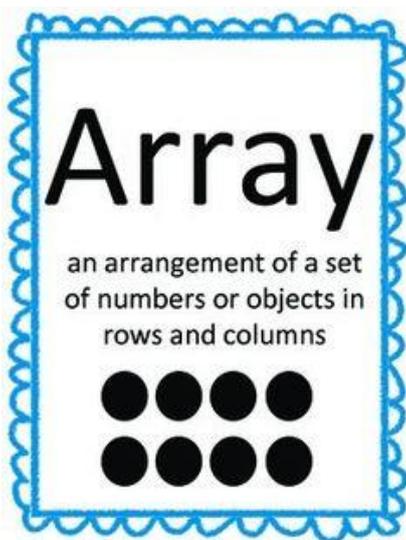
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100