With God all things are possible. Matthew 19:26

Year 6

Key Instant Recall Facts

To develop your child's fluency and mental maths skills, we are introducing KIRFs (Key Instant Recall Facts) throughout school. KIRFS are a way of helping your child to learn by heart, key facts and information which they need to have instant recall of. KIRFs are designed to support the development of mental maths skills that underpin much of the maths work in our school. They are particularly useful when calculating, adding, subtracting, multiplying or dividing. They contain number facts such as number bonds and times tables that need constant practise and rehearsal, so children can recall them quickly and accurately.

For your child to become more efficient in recalling them easily, they need to be practised frequently and for short periods of time. Each half term, children will focus on a Key Instant Recall Fact (KIRF) to practise both in school and learn at home for the half term. They will also be available on our school website under the maths section. They are not designed to be a time-consuming task and can be practised anywhere – in the car, walking to school, etc. Regular practice - little and often – helps children to retain these facts and keep their skills sharp. Over their time at primary school, we believe that - if the KIRFs are developed fully - children will be more confident with number work, understand its relevance, and be able to access the curriculum much more easily.

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Key Instant Recall Facts

Year 6 Autumn 1

Recall pairs of numbers which total 1 up to three decimal places

By the end of this term we aim that children should know these facts instantly

Children will use their previous knowledge of number bonds to help them to learn these facts:

e.g. 0.343 + __ = 1

by making 0.9 using the tenth, 0.09 using the hundredths and 0.01 using the thousandths

Key vocabulary

Complements- In addition, a number and its complement make a total e.g. 0.3 is the complement of 0.7 to make 1

Decimal number- A number with a decimal point.

Number bonds- Pairs of numbers that add together to make another number.

Top Tip:

Please practise these little and often, at times like when you are on your way to school or doing tasks in the house. Make them a part of your everyday routine.

How to practise this skill examples:

- Questions to ask at home:
  - What do I add to 0.8 to make 1?
  - What is 1 take away 0.06?
  - What is 1.3 less than 10?
  - How many more than 9.8 is 10?

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Key Instant Recall Facts

Year 6 Autumn 2

Recall the order of operations and use multiplication knowledge to multiply decimals

By the end of this term we aim that children should know these facts instantly

These are the order of operations:

Brackets / indices / Multiplication and Division / Addition and Subtraction **BIDMAS**

So 64 - 4 x 5 = 64 – 20 = 44

Apply times table knowledge to decimals where both numbers are decimal numbers

E.g. knowing 4 x 3 = 12 can be applied to 0.4 x 3= 1.2 and 0.4 x 0.3 = 0.12

Key vocabulary

If I know that 6x7 = 42,

- what is 0.6 x 7?
- What is 0.6 x 0.7?
- What is 4.2 divided by 7?

Top Tip:

Please practise these little and often, at times like when you are on your way to school or doing tasks in the house. Make them a part of your everyday routine.

How to practise this skill examples:

Give the children a multiplication sentence and see what decimal number sentences they can make from it

- How many decimal multiplications can they answer in a minute?
- Use the internet to find simple BODMAS problems- can the children solve them?
- Give the children a number- can they use BODMAS to write a calculation that is equal?

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Key Instant Recall Facts

Year 6 Spring 1

I know and can recall fraction, percentage and decimal equivalents

By the end of this term we aim that children should know these facts instantly

Recall percentage and decimal equivalents of these fractions:

$\frac{3}{4}, \frac{3}{5}, \frac{9}{10}, \frac{37}{100}$ and $\frac{1}{3}$ (approximate)

To include all tenths and hundredths

Key vocabulary

3/4 = 0.75= 75%

3/5 = 0.6= 60%

9/10= 0.9= 90%

1/3 = 0.33= 33%

37/100 = 0.37= 37%

Top Tip:

Please practise these little and often, at times like when you are on your way to school or doing tasks in the house. Make them a part of your everyday routine.

How to practise this skill examples:

Dominos- write the fraction and decimal the domino is showing

- Bingo- make your own fraction to decimal bingo game
- Pairs game- make your own fraction and decimal card matching game

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Key Instant Recall Facts

Year 6 Spring 2

I know and can recall formula for volume of cuboids and areas of triangles and parallelograms.

By the end of this term we aim that children should know these facts instantly

Children to recall the following formulas:

- **volume of cubes and cuboids** (length x width x height)
- *Know that volume is notated in cubic units (e.g. cm³ and mm³)*
- **Recall formula: area of a triangles:** 1/2 (base x height)
- **Recall formula: area of parallelograms:** base x height

Key vocabulary

How do you work out the volume of a cuboid?

Example: length= 5 cm, width= 7cm height= 9cm

Volume= 5 x 7 x 9

=315cm³

How do you calculate the area of a triangle?

Example: base= 5cm, height= 8cm

Area = (5x8)÷2

= 40÷2

=20cm²

Top Tip:

Please practise these little and often, at times like when you are on your way to school or doing tasks in the house. Make them a part of your everyday routine.

How to practise this skill examples:

Practise using the formula around the house to find the volume of different cubes such as food boxes, items of furniture

- Give the children an area or volume, ask them to think of possible units of length that would equal this