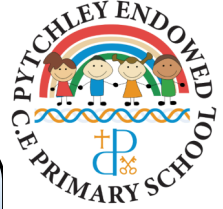


With God all things are possible. Matthew 19:26



Year 5

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.



Key Instant Recall Facts

Year 5 Autumn 1

Recall Roman numerals up to M

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

Children will instantly recall the value of each of these Roman numerals. They will then be able to use their knowledge of these numbers to read numbers up to 1000 using Roman numerals.

Key vocabulary

I	One
V	Five
X	Ten
L	50
C	100
D	500
M	1000

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:

- Use flash cards to practise each of the values
- Play card games to match Roman numerals to their number equipment
- Once confident with each of their values, read Roman numerals up to 1000



Key Instant Recall Facts

Year 5 Autumn 2

Recall all prime numbers up to 19

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

These are the prime numbers up to 19:

- 2
- 3
- 5
- 7
- 11
- 13
- 17
- 19

Key vocabulary

Is 11 a prime number?

Why?

Is 12 a prime number?

Why?

How many factors does 17 have?

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:

- Sorting numbers out into those that are and aren't prime numbers
- Chanting the prime numbers
- Making songs containing the prime numbers
- Finding the factors of the numbers up to 20 and finding the prime numbers



Key Instant Recall Facts

Year 5 Spring 1

I know the square numbers up to 144 and the cubed numbers up to 125

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

Square numbers:

$$1^2 = 1 \quad 2^2 = 4 \quad 3^2 = 9$$

$$4^2 = 16 \quad 5^2 = 25 \quad 6^2 = 36$$

$$7^2 = 49 \quad 8^2 = 64 \quad 9^2 = 81$$

$$10^2 = 100 \quad 11^2 = 121 \quad 12^2 = 144$$

Cubed numbers:

$$1^3 = 1 \quad 2^3 = 8 \quad 3^3 = 27$$

$$4^3 = 64 \quad 5^3 = 125$$

Key vocabulary

Notation- A symbol. The notation 2 means squared e.g. 5^2 is 5 squared, $5 \times 5 = 25$

Square number- The result when a number has been multiplied by itself (e.g. $3^2=3 \times 3=9$)

Cubed number- the result when a number has been multiplied by itself and then multiplied by itself again (e.g. $3^3=3 \times 3 \times 3=27$)

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:

- Around the clock- think of a clock face. What are each of the numbers squared? Cubed (up to 5)?
- Dice roll- whatever the number lands on, square it or cube it
- Cards- turn a card over, square it and call out the answer. Can you say the answer quicker than your partner?



Key Instant Recall Facts

Year 5 Spring 2

I know and can recall percentage and decimal equivalents of these fractions.

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

Recall percentage and decimal equivalents of these fractions:

$$\frac{1}{2}, \frac{1}{4}, \frac{3}{4}, \frac{1}{5}, \frac{2}{5} \text{ and } \frac{4}{5}$$

Key vocabulary

$$\frac{1}{2} = 0.5 = 50\%$$

$$\frac{1}{4} = 0.25 = 25\%$$

$$\frac{3}{4} = 0.75 = 75\%$$

$$\frac{1}{5} = 0.2 = 20\%$$

$$\frac{2}{5} = 0.4 = 40\%$$

$$\frac{4}{5} = 0.8 = 80\%$$

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

With God all things are possible. Matthew 19:26



Key Instant Recall Facts

Year 5 Summer 1

I know the multiplication and division facts for all times table and key conversion facts

Use this term to practise all of the times tables and their related division facts

Children are to learn these key conversions:

- 1 kilogram = 1000 grams 2 kilo-grams = 2000 grams
- 1 kilometre = 1000 metres
- 1 metre = 100 centimetre
- 1 metre = 1000 millimetres
- 1 centimetre = 10 millimetres
- 1 litre = 1000 millilitres etc

Key vocabulary

Capacity- How much of a solid, liquid or gas an object can hold. **Convert-** To change the expression without changing the size or amount.

Length- The measurement of something from end to end.

Mass- How much an object weighs.

Metric units- Units of measurement using the powers of 10

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:

- o What do the prefixes kilo, milli and centi mean?
- o Complete the sentence- there aregrams in akilogram.
- o Complete the sentence- to convert from metres to centimetres you

• **Measure up-** measure the length, mass and volume of different items in your home including recipes. Show the measurements in different units of measures.



Key Instant Recall Facts

Year 5 Summer 2

I know and can recall formula for area and perimeter

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

The formula: perimeter of a rectangle: $(2 \times \text{length}) + (2 \times \text{width})$ area of rectangles: $\text{length} \times \text{width}$ (area is usually measured in square units cm^2 and m^2)

Key vocabulary

How do you work out the perimeter of a rectangle?

How do you calculate the area of a rectangle?

Example: length= 5cm, width= 7cm

Perimeter = $(5 \times 2) + (7 \times 2)$

$= 10 + 14 = 24\text{cm}$

Area = $5 \times 7 = 35\text{cm}^2$

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:

Once the formulas are learnt, the best way to use these skills are to put them to practise in finding perimeters and areas of different rectangles:

- Tell the children the lengths of the sides of different shapes and ask them to find the area and perimeter of these shapes
- Use the formulas to find the area and perimeter of real life objects within the house such as book covers or even rooms if you're feeling brave!