St Anne's C of E Primary School Curriculum Plan

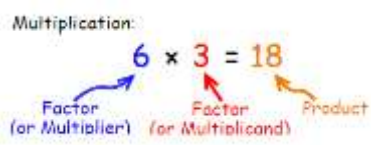**Subject: Maths** | **Year: 3** | **Term: Autumn/ Spring**

Unit: Multiplication and division

Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
Multiplication **Multiply** **Multiplied by** **Groups of** **Times** **Repeated addition** **Multiple** - The result of multiplying a number by an integer (not by a fraction). **Factor** - Numbers we can multiply together to get another number. **Multiplicand** – The number to be multiplied **Multiplier** – The number by which the multiplicand is multiplied by	• the multiplication and division facts for the 3, 4 and 8 multiplication tables. • products that are in the two, four and eight times table share the same factors. • any number multiplied by zero will have a product of zero. • the divisibility rules for the two, four and eight times table. **Stem Sentences** "factor times factor is equal to product" "The order of the factors does not affect the product." "When zero is a factor, the product is zero."	• products in the four times table are double the products in the two times table. • that products in the eight times table are double the products in the four times table. • that the commutative property of multiplication will allow them to solve problems from the 5,10, 2, 4 and 8 times tables, e.g. if they know 7 X 5, they can find 5 X 7 even though they have not learnt the 7 times table. • that they can use known division facts corresponding to the 5, 10, 2, 4 and 8 multiplication tables to solve both quotitive (grouping) and partitive (sharing) contextual division problems.	• use arrays to show multiplication. • use concrete resources and pictorial representations to show multiplication and division. • use mental methods, e.g. partitioning to multiply two-digit numbers by one-digit numbers. • use formal written methods to multiply two-digit numbers by one-digit numbers.

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Product – The result of a multiplication Multiplication: $6 \times 3 = 18$ Factor (or Multiplier) Factor (or Multiplicand) Product	"For every one group of four, there are two groups of two." "Products in the four times table are also in the two times table." "Products in the eight times table are also in the four times table."		
Division **Dividing** **Divide** **Divided by** **Divided into** **Grouping** **Sharing** **Shared equally** **Left over** **Remainder** **Equal groups of** **Dividend** – The amount that you want to divide up. **Divisor** – The number we divide by. **Quotient** - The answer after we divide one number by another. **dividend ÷ divisor = quotient.** **Doubling** **Halving** **Array** **Multiplication table**	"7 times 2 is 14, so 14 divided by 2 is 7." "14 divided into groups of 2 is equal to 7." "7 times 2 is 14, so 14 divided by 2 is 7." "£14 shared between 2 is equal to £7 each." "If the ones digit of a number is even, the number can be divided by two." "For numbers with more than two digits: if the final two digits are divisible by four, then the number is divisible by four."		

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Multiplication fact Division fact			

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Subject: Maths	Year: 3	Term: Spring

Unit: Length and perimeter

Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
measure measurement **size** **compare** **measuring scale** **length** **height** **width** **depth** **perimeter** - The distance around a two-dimensional shape.	• the term 'centimetres' and abbreviate with cm. • the term millimetres and abbreviation mm. • the term 'metres' and abbreviate with m. • there are 10mm in 1 cm. • there are 100 cm in 1 m. • kilometres are used to measure distances. • the difference between centimetres, metres and kilometres. • there are 1000 m in 1 km. **Stem Sentences**	• when measuring, you must start from 0 cm. • the intervals on a ruler or tape measure. • which equipment is most suitable for measuring different objects/ distances. • how to convert lengths in centimetres and millimetres into millimetres and vice versa. • how to convert lengths in metres and centimetres into centimetres and vice versa. • how to convert kilometres and metres to metres and vice versa.	• measure length in metres and centimetres. • write lengths in metres and centimetres. • estimate a distance of 1 km. • read and write distances in kilometres and metres. • compare lengths in centimetres. • compare lengths in metres and centimetres. • compare lengths in metres. • compare lengths in kilometres and metres. • count the number of sides on 1 cm grid paper to determine the perimeter.

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millimetre – one thousandth of a metre **centimetre** - a combination of the Latin word for "hundred," centum, and the French mètre. **metre** - from French *mètre*, from Greek *metron* 'measure' **kilometre** – one thousand metres **ruler** **metre stick** **tape measure**	There are 10 millimetres in 1 cm so to convert millimetres to centimetres, you need to divide by 10. For every 1 centimetres, there are 10 millimetres, so to convert centimetres to millimetres, you need to multiply by 10. There are 100 centimetres in 1metre so to convert centimetres to metres, you need to divide by 100. For every 1 metre, there are 100 centimetres, so to convert metres to centimetres, you need to multiply by 100. The perimetre is the total length around a 2D shape. To calculate the perimeter of a square, measure the length of one side and multiply by 4. To calculate the perimetre of a rectangle, find the sum of the length and the bredth and then multiply by 2.	• 'perimeter' as 'the total length around a shape'. • they can calculate the perimeter of a rectangle by finding the sum of the length and breadth and then multiplying by 2. • they can calculate the perimeter of a square by multiplying one side by 4. • the connection between the properties of 2D shapes and measuring the perimeter.	• draw a figure on 1 cm grid paper when given a perimeter. • calculate the perimeter of a figure by adding all the sides.

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Subject: Maths **Year: 3** **Term: Spring / Summer**

Unit: Fractions

Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
unit fraction – a fraction with a numerator of 1 **Non-unit fraction** – a fraction where the numerator is greater than 1 **equivalent fraction** – equal in value **mixed number** – a whole number and a fraction combined into one number **denominator** **equal part**	• a unit fraction always has a numerator of 1. • the numerator and denomintor are the same when the fraction is equivalent to one whole. • tenths arise from dividing one whole into 10 equal parts. • ten tenths make one whole. • when adding fractions with the same denominator, you add the numerator but the denominator remains the same. • when subtracting fractions with the same denominator, you subtract the numerator but the denominator remains the same.	• how to find a unit fraction of an amount by dividing an amount into equal groups. • the relationship between the numerator and the denominator. • Pupils understand that non-unit fractions are repeated additions of unit fractions, for example, three-eighths is one-eighth add one-eighth add one-eighth. • the numerator is the number of equal parts from a whole being counted. • the denominator is the total number of equal parts a whole has been divided into.	• count in tenths forward and backwards. • represent tenths in different ways. • place fractions on a number line. • find unit fractions of amounts using concrete and pictorial representations. • make number pairs of a fraction to total one whole. • add fractions with the same denominator. • divide a whole into smaller parts to find equivalent fractions by drawing.

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equal grouping **equal sharing** **parts of a whole** **half, two halves** **one of two equal parts** **quarter, two quarters, three quarters** **one of four equal parts** **one third, two thirds** **one of three equal parts** **sixths, sevenths, eighths, tenths …**	● a number line can be divided into different amounts of equal parts to find equivalent fractions **Stem Sentences** The parts are equal. I know this because the number of _____ in each part is the same. Equal-sized parts do not have to look the same. The whole is divided into 3 equal parts. Each part is one-third of the whole. The whole is divided into 8 equal parts and 5 of those parts are shaded. $\frac{5}{8}$ of the shape is shaded. $\frac{5}{8}$ is 5 one-eighths. The whole is 12 oranges. The whole is divided into 4 equal parts. Each part is ¼ of the whole. ¼ of 12 oranges is 3 oranges.	● equivalent fractions are equal. ● the relationship with multiplication when finding equivalent fractions. ● the larger the denominator, the smaller the fraction as you are dividing into more equal parts.	● look for patterns between the numerator and denominator to find equivalent fractions. ● compare unit fractions or fractions with the same denominator. ● order unit fractions and fractions with the sae denominator.

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	To find $\frac{1}{5}of$ 15, we divide 15 into 5 equal parts. 15 divided by 5 is equal to 3, so $\frac{1}{5}$ of 15 is equal to 3. One fifth, two fifths, three fifths… 1 one-fifth, 2 one-fifths, 3 one-fifths… When adding fractions with the same denominators, just add the numerators. When subtracting fractions with the same denominators, just subtract the numerators.		

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Subject: Maths	Year: 3	Term: Spring

Unit: Mass and capacity

Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
measure **measurement** **size compare** **measuring scale** **mass** **weight gram -** from French **gramme-** from late Latin **gramma 'a small weight' kilogram** - The prefix kilo is derived from the	• 1kg is heavier than 1g. • the difference between volume and capacity. (Capacity is the amount acontainer can hold, volume is the amount it is actually holding.) • kilograms are a larger unit of measure than grams. • litres are a larger unit of measure than millilitres. • there are 1000 grams in 1 kilogram. • There are 1000 millilitres in 1 litre	• the difference between gram and kilogram weights. • kilograms are used to measure heavier objects and grams are used to measure lighter objects. • the most efficient strategy to use when calculating mass or capacity. litres are used to measure larger containers and millilitres are used for smaller containers. • how to calculate the missing intervals when reading a range of different scales.	• read a range of different scales, including those with missing intervals. • the mass of different objects and record them as a mixed measurement in kilograms and grams. • compare mixed measurements using the inequality symbols. • add and subtract mass and capacity. • measure capacity with litres and millilitres.

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Greek word κιλὸ (kiló), meaning "thousand" **weigh, weighs , balances** **heavy, light, heavier than, lighter than** **heaviest, lightest scales** **Capacity** - the amount a container or something can hold. **Volume** – the amount of space occupied by an object. **Litre** - a metric unit for measuring capacity from Greek litra **millilitre** - from Latin mille 'thousand'. **full, empty half full more than, less than**	Stem Sentences *There are _____ intervals between 0 and 100. 100 ÷ _____ = _____ Each interval is worth _____g. There are 1000g in 1kg. There are 1000ml in 1 l.*		

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