Orton Wistow Primary School – Curriculum Plan

Subject :	Maths	Year :	4	Unit : Number and Place Value

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
Tenths, hundredths **Decimal (places)** **Round (to nearest)** **Thousand more/less than** **Integers** - a number which is not a fraction; a whole number *From the Latin meaning intact, whole* **Negative** – a number which is less than zero **Positive** – a number which is greater than zero **Negative integers** – When referring to negative numbers always use this language <u>not minus</u>, e.g. negative 4 rather than minus 4 **Count through zero** **Consecutive numbers-** numbers that follow each other in an unbroken sequence.	• Pupils know the Roman numerals from 1 to 100. • Pupils know that in the Roman system there is no symbol for zero so no placeholders • Pupils know that over time, the number system changed to include the concept of zero and place value • Pupils know to look at the ones column when rounding to the nearest 10 • Pupils know to look at the tens column when rounding to the nearest 100 • Pupils know to look at the hundreds column when rounding to the nearest 1000 • Pupils know that 1000 is made up of ten hundreds • Pupils know there are 2 25s in 50 and 4 25s in 100 **Stem Sentences** 'The whole is divided into ten equal parts; each part is one tenth of the whole.'			• Pupils understand what is the same and what is different between the number systems • Pupils understand the position of 2 and 3-digit numbers on a number line in order to round up or down • Pupils understand that although 5 is in the middle of 0 and 10, the convention is that any number ending in 5 is rounded up • Pupils understand which two multiples of 100 a three-digit number sits between. • Pupils know which multiples of 1000 and four-digit number sits between. • Pupils understand that a four-digit number is made up of thousands, hundreds, tens and ones • Pupils understand that numbers can be partitioned in various ways, e.g. 5000 + 300 + 20 + 9 is equal to 4000 + 1300 + 10 + 19 • Pupils understand that there are numbers below zero • Pupils understand the real life context of negative numbers, e.g. temperature or water depth			• Count in multiples of 6,7,9,25 and 1000 • Find 1000 more or less than a given number • Count back through zero to include negative numbers • Order and compare numbers beyond 1000 • Round numbers to the nearest 10, 100 or 1000 • Identify and represent numbers using concrete materials, pictures and numerals • Read Roman numerals to 100 (I to C)		

Vocabulary	**Knowledge** What children will know	**Understanding** What children will understand	**Skills** What children will be able to do
Define the word and include etymology if useful.	**Learning** Remembering / **Teaching** Telling / **Assessment** Testing	**Learning** Practising / **Teaching** Coaching / **Assessment** Observing	**Learning** Reflecting / **Teaching** Facilitating / **Assessment** Evaluating
Roman numerals (I to C)	One tenth can be written as 0.1 so ____tenths can be written as 0.___ One is equal to ten tenths. ____ tenths plus ____ tenths is equal to ten tenths, which is equal to one. 'The whole is divided into one hundred equal parts; each part is one hundredth of the whole.' To compare two numbers, we compare digits with the same place value, starting with the largest place-value digit.		

Orton Wistow Primary School – Curriculum Plan

Subject : Maths	Year :4	Unit :Addition and Subtraction

Vocabulary	**Knowledge** What children will know	**Understanding** What children will understand	**Skills** What children will be able to do
Define the word and include etymology if useful.	Learning / Teaching / Assessment Remembering / Telling / Testing	Learning / Teaching / Assessment Practising / Coaching / Observing	Learning / Teaching / Assessment Reflecting / Facilitating / Evaluating

Vocabulary	Knowledge	Understanding	Skills
Addition Add, more, and, make, sum, total, altogether Double Near double Half, halve One more, two more… ten more **Addends –** the numbers added together to make the sum **Subtraction** Take away, minus, fewer, less, difference between One less, two less… ten less **Minuend –** a quantity or number from which another is to be subtracted **Subtrahend -** a quantity or number to be subtracted from another. **Equals** Is equal to, is the same as Number bonds Number pair Number facts Part, part, whole Partition Recombine Missing number Tens boundary / Hundreds boundary **Commutative -** involving the condition that a group of quantities connected by operators gives the same result	• Pupils know that when multiples of 100 are added or subtracted, the sum or difference is always a multiple of 100. • Pupils know how to record exchanges • Pupils know when it is appropriate to use mental strategies and when to use written strategies • Pupils know that numbers can be rounded to simplify calculations or to indicate approximate sizes. • Pupils understand that they can use the same calculation methods learnt for three-digit numbers when calculating four-digit numbers.	• Pupils understand why exchanges are needed • Pupils understand multiple exchanges within an addition • Pupils understand when to exchange in different place value columns • Pupils understand subtractions where there is more than one exchange	• Use concrete objects and pictorial representations to add and subtract • Use formal written methods of columnar addition and subtraction of up to 4-digit numbers • Use knowledge of rounding to estimate the answer to a calculation • Use inverse operations to check answers • Solve two-step problems in contexts • Use bar modelling to solve problems • Can recognise patterns between calculations to enable them to predict answers • Pupils can compare different methods of addition and subtraction

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
whatever the order of the quantities involved, e.g. $a \times b = b \times a$.									

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics   **Year : 4**   **Unit : Multiplication and Division**

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Multiplication Multiply Multiplied by Groups of Times Repeated addition **Multiple -** The result of multiplying a number by an integer (not by a fraction).	• Pupils will know the multiplication and division facts up to 12 x 12. • Pupils know that any number multiplied by zero will have a product of zero. • Pupils know that when a number is multiplied or divided by 1, the productor quotient remains the same. • Pupils know that products in the 12 times table are double the products in the 6 times table.			• Pupils understand that multiplication is commutative but division is not. • Pupils understand making a number ten times bigger is the same as 'multiply by 10.' • Pupils understand making a number a hundred times bigger is the same as 'multiply by 100.' • Pupils understand what is happening to the place value of			• Pupils will use concrete resources and pictorial representations to show multiplication and division, including multiplying and dividing by 10 and 100. • Pupils can count in equal groups of 6, 7 and 9. • Pupils will be able to use mental methods, e.g. partitioning to multiply two-digit numbers by one-digit numbers.		

Vocabulary	Knowledge			Understanding			Skills		
	What children will know			What children will understand			What children will be able to do		
Define the word and include etymology if useful.	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating

Vocabulary

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

Product – The result of a multiplication

Multiplication:

$6 \times 3 = 18$

Factor (or Multiplier)   Factor (or Multiplicand)   Product

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.

Knowledge

- Pupils know that multiplying by 100 is equivalent to multiplying by 10 and then multiplying by 10 again.
- Pupils know that dividing by 100 is equivalent to dividing by 10 and then dividing by 10 again.
- Pupils know that when using the 'short multiplication' algorithm, you start from the least significant digit (on the reight) to the most significant digit (on the left).
- Pupils know that if the product in any column is ten or greater, we must 'regroup'.
- Pupils know that objects can be divided into equal groups and sometimes this leads to a remainder.

Stem Sentences

"The product of _____ and ____ is equal to the product of _____ and ____."

"When zero is a factor, the product is always zero."

"When the dividend is zero, the quotient is zero."

"_____ is equal to ____ plus ____ so ____ times ____ plus ____ time ____ is equal to ____ times _____."

Understanding

each digit when multiplying or dividing by 10 or 100.
- Pupils understand that multiplication facts can be derived from related known facts by partitioning one factor (distributive law) e.g. 6x3 can be found by (2x3) + (4x3).
- Pupils understand that they can use the distributive law to derive multiplication facts beyond the known times tables.

Skills

- Pupils will be able to partition three-digit numbers into hundreds, tens and ones to multiply by a single digit number.
- Pupils will be able to use formal written methods to multiply two-digit numbers and three-digit numbers by one-digit numbers.

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
Divisor – The number we divide by. **Quotient -** The answer after we divide one number by another. **dividend ÷ divisor = quotient.** **Commutative law -** The Law that says you can swap numbers around and still get the same answer when you add or when you multiply. **Ditributive law -** multiplying a number by a group of numbers added together **is the same as doing each multiplication separately.** **Doubling** **Halving** **Array** **Multiplication table** **Multiplication fact** **Division fact**	"Multiplying by one hundred is equivalent to multiplying by ten and then multiplying by ten again." "If one factor is made ten times the size, the product will be ten times the size." "If one factthe dividend is made ten times the size, the quotient will be ten times the size." "If the dividend is a multiple of the divisor there is no remainder." "If the dividend is not a multiple of the divisor, there is a remainder." "The remainder is always less than the divisor."								

Orton Wistow Primary School – Curriculum Plan
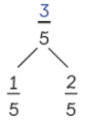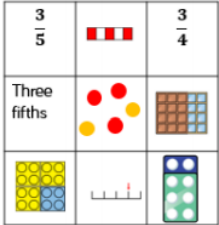
Subject : Mathematics | **Year : 4** | **Unit : Fractions**

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating

fraction

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

numerator,

denominator

equal part

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

Knowledge

- Pupils know that when you multiply the numerator and denominator by the same number, the result is an equivalent fraction.
- Pupils know how many equal parts make a whole.
- Pupils know a mixed number contains a whole number and a fraction.
- Pupils know that when adding fractions with the same denominator, you only add the numerator and the denominator remains the same.
- Pupils know that when subtracting fractions with the same denominator, you only subtract the numerator and the denominator remains the same.

Stem Sentences

Each interval is divided into 4 equal parts, so we count in quarters.

$1\frac{1}{3}$ is between 1 and 2. The previous whole number is 1. The next whole number is 2.

When the numerator is a multiple of the denominator, the fraction is equivalent to a whole number.

Understanding

- Pupils understand the meaning of numerator and denominator.
- Pupils understand the relationship between the numerator and denominator when recognising equivalent fractions.
- Pupils understand that multiplication and division can be used to find equivalent fractions.
- Pupils understand how to partition a fraction using number bonds in order to make one whole. $\frac{3}{5}$ $\frac{1}{5}$ $\frac{2}{5}$
- Pupils understand how to use unit fraction of a whole to find non-unit fractions of a whole.

Skills

- Pupils can use a number line to represent hundredths.
- Pupils can count forward and backwards in hundresths.
- Pupils can recognise and name fractions in different representations.
- Pupils can use fraction walls to find equivalent fractions.
- Pupils can use proportional reasoning to find equivalent fractions.
- Pupils can use concrete and pictorial representations to represent a mixed number.
- Pupils can place mixed numbers on a pre-constructed number line.
- Pupils can use bar models to represent fractions greater than a whole.
- Pupils can add fractions and record answers greater than one as a mixed number.
- Pupils can subtract fractions from a whole amount

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
sixths, sevenths, eighths, tenths, hundredths …	There are 2 groups of five-fifths, which is 10 fifths and 3 more fifths. This is 13 fifths. We have 21 eighths. 8 eighths is equal to 1 (whole). 21 eighths is equal to 2 groups of 8 eighths, and 5 more eighths. This is 2 and 5 eighths. 7 one-fifths plus 4 one-fifths is equal to 11 one-fifths. When adding fractions with the same denominators, just add the numerators. When subtracting fractions with the same denominators, just subtract the numerators.						• Pupils can use bar models to show how to find non-unit fractions of a whole.		

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics	Year : 4	Unit : Decimals

Vocabulary	Knowledge			Understanding			Skills		
	What children will know			**What children will understand**			**What children will be able to do**		
Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
tenths **hundredths** **decimal** **decimal fraction** **decimal point** **decimal place** **decimal equivalent**	• Pupils know that 1 tenth = 1/10 = 0.1 • Pupils know that there are ten 0.1 in 1. • Pupils know that 1 is 10 times as much as 0.1. • Pupils know that there are ten 0.01 in 0.1. • Pupils know that 0.1 is 10 times as much as 0.01. • Pupils know that 1 hundredth = 1/100 = 0.01 **Stem Sentences** 1 is 10 times the size of one-tenth. One-tenth is 10 times the size of one-hundredth. 1 is 100 times the size of one-hundredth. 10 tenths is equal to 1 one. 10 hundredths is equal to 1 tenth. 100 hundredths is equal to 1 one.			• Pupils understand that 10 tenths are equivalent to 1. Pupils understand that 10 hundredths are equivalent to one tenth. • Pupils can understand the place value of each digit in a number with 2 decimal places. • Pupils understand that when comparing numbers, they need to start with comparing the digits in the place with the largest value. • Pupils understand when dividing by 10 the number is being split into 10 equal parts and is 10 times smaller. • Pupils understand when dividing by 100 the number is being split into 100 equal parts and is 100 times smaller. • Pupils understand the importance of 0 as a place holder. • Pupils understand how to round a number with 1 decimal place to the nearest whole number.			• Pupils can read and write numbers consisting of ones and tenths. • Pupils can regroup 10 tenths to make 1. • Pupils can rewrite tenths from a fraction to a decimal. • Pupils can place a decimal number on a number line. • Pupils can use Base 10 blocks to show a decimal consisting of ones, tenths and hundredths. • Pupils can write fractions as decimals. • Pupils can write mixed numbers as decimals. • Pupils can write tenths as decimals. • Pupils can write hundredths as decimals. • Pupils can regroup 10 hundredths as 1 tenth. • Pupils can combine ones, tenths and hundredths to make a decimal number. • Pupils can compare and order numbers with 2 decimal places. • Pupils can add/subtract tenths to a number. • Pupils can add/subtract hundredths to a number.		

Orton Wistow Primary School – Curriculum Plan

Subject : Maths	Year : 4	Unit : Statistics

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
count, tally, sort, vote **survey, questionnaire, data** **graph, line graph** **represent** **group, set list, table, chart, frequency table** **label, title, axis, axes, origin, horizontal axis, vertical axis** **diagram** **compare, sum, difference**	• Pupils know which scale will be the most appropriate when drawing their own bar charts and which key will be the most appropriate for a pictogram. • Pupils know that line graphs can show changes of a variable, such as temperature, over time. • They know about continuous data. • Pupils know that using dashed rather than solid lines is useful, as it emphasises that they show the trend in the change, not the exact values. • Pupils know that the axes represent different variables.			• Pupils understand how to interpret data. • Pupils understand how to use key addition and subtraction skillsblock to answer questions. • Pupils understand that temperature can change all the time rather than be counted, and so representing it as a bar chart or pictogram would not be appropriate. • Pupils understand that for many line graphs, the values are only known for specific times and reading off any other values will only give an estimate.			• Pupils can gather their own data and then present it as a bar chart or pictogram. • Pupils can solve comparison, sum and difference problems using discrete data. • Pupils can ask their own questions about the data in pictograms, bar charts and tables. • Pupils can apply their knowledge of scales on a graph to read a line graph accurately. • Pupils can use their knowledge of scales to accurately draw line graphs, ensuring that they label the axes correctly. • Pupils can accurately plot data and choose appropriate scales.		

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics	Year : 4	Unit : Position and Direction

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
Coordinates **Axes** **X axis** **Y axis** **Quadrant** **First quadrant** **clockwise, anticlockwise** **compass point** **north, south, east, west, N, S, E, W** **north-east, north-west, south-east, south-west, NE, NW, SE, SW** **horizontal, vertical, diagonal** **translate, translation** **movement** **whole turn, half turn, quarter turn, three-quarter turn** **rotate, rotation** **angle, is a greater/smaller angle than** **degree** **right angle** **acute angle** **obtuse angle** **reflection** **straight line**	• Pupils know how to read and write coordinates. • Pupils know that when reading and writing coordinates, the X axis is read first. • Pupils know the notation of coordinates within brackets. • Pupils know that when translating shapes, each vertex must make the same movement. • Pupils know that when translating shapes, you move along the X axis first (left /right) before moving along the Y axis (up/down) **Stem Senteces** **"The polygon has been translated 4 squares to the right and 3 squares down."** **"First count along the x-axis, then count along the y-axis."**			• Pupils understand why describing the distance from 2 locations gives and accurate position. • Pupils understand that points must be plotted on grid lines not between them. • Pupils understand that when translating a shape, the shape itself does not change.			• Pupils can use the grid to describe position. • Pupils can describe position accurately. • Pupils can describe the position of vertices from the x and y axis. • Pupils can describe a translation given the final coordinates of one vertex of the shape. • Pupils can use a coordinate grid to translate figures.		

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics   **Year : 4**   **Unit : Properties of Shape**

Vocabulary	Knowledge			Understanding			Skills		
	What children will know			What children will understand			What children will be able to do		
Define the word and include etymology if useful.	**Learning**	**Teaching**	**Assessment**	**Learning**	**Teaching**	**Assessment**	**Learning**	**Teaching**	**Assessment**
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating

2-D shape
Polygon (from Greek "many-angled)
Quadrilateral (Latin *quadrilaterus*, from *quadri*- "four" and *latus* "the side, flank of humans or animals, lateral surface,")
Regular, irregular
Vertex, vertices
sides
point, pointed

Triangles
Isosceles (Greek *isoskelēs*, from *isos* 'equal' + *skelos* 'leg'.)
Scalene (Greek *skalēnos* 'unequal'; related to *skolios* 'bent'.)
Equilateral (Latin *aequilateralis*, from *aequilaterus* 'equal-sided')

Quadrilaterals
Square
Rectangle
Rhombus
Parallelogram
Trapezium

3-D shape
Face
Edge

Knowledge

- Pupils know that an acute angle is more than 0 degrees and less than 90 degrees.
- Pupils know that a right-angle is exactly 90 degrees.
- Pupils know that an obtuse angle is greater than 90 degrees and less than 180 degrees.
- Pupils know that equilateral triangles have equal vertices of 60 degrees.
- Pupils know that a rhombus has equal length sides but not angles.
-

Stem Sentences

"This is a regular polygon, because all of the sides are the same length, and all of the interior angles are equal."

"This is a line of symmetry because it splits the shape into two equal parts which are mirror images."

Understanding

- Pupils understand regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal.
- Pupils understand whether a shape is a polygon or not.
- Pupils understand that right-angled triangles can be either isosceles or scalene triangles but cannot be equilateral triangles.
- Pupils understand that a square is a type of rectangle.
- Pupils understand that where line symmetry exists within a shape, the shape can be split into two parts which are a reflection of one another.

Skills

- Pupils can use an angle tester to check if an angle is larger or smaller than a right angle.
- Pupils can compare and order the size of angles in ascending and decending order.
- Pupils can identify angles in different representations, including in shapes and on a grid.
- Pupils can classify triangles using the names 'isosceles', 'scalene' and 'equilateral'.
- Pupils can classify quadrilaterals according to their properties.
- Pupils can Identify line symmetry in 2D shapes presented in different orientations.
- Pupils can reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
vertex, vertices apex prism **Angle** **Right-angle** **Acute** **obtuse** **Clockwise** **Anti-clockwise** **Line** **Horizontal** **Vertical** **Parallel** **Perpendicular**									

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics   **Year : 4**   **Unit : Length and Perimeter**

Vocabulary	Knowledge			Understanding			Skills		
	What children will know			What children will understand			What children will be able to do		
Define the word and include etymology if useful.	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating

Vocabulary

measure measurement
size
compare
measuring scale
length
height
width
depth
perimeter - The distance around a two-dimensional shape.
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

Knowledge

- Pupils know that 100 cm = 1 m.
- Pupils know that 10 cm = 0.1 m.
- Pupils know that 1 cm = 0.01 m.
- Pupils know that 1000 m = 1 km.
- Pupils know that 100 m = 0.1 km.
- Pupils know that 10 m = 0.01 km.
- Pupils know that 1 cm = 10 mm.
- Pupils know that 10 cm = 100 mm.
- Pupils know that rectilinear shapes are shapes where all the sides meet at right angles.

Stem Sentences

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.

Understanding

- Pupils understand how to multiply or divide by 1000 to convert between metres and kilometres.
- Pupils understand that you can calculate the perimeter of a rectilinear shape by counting squares on a grid.
- Pupils understand how to find the perimeter of rectangles (including squares) that are not on squares paper.
- Pupils understand that there is more than 1 way to find the perimeter of rectangles.
- Pupils underdstand how to find missing lengths of rectangles (including squares) when given the perimeter of a shape.

Skills

- Pupils can convert centimetres to metres.
- Pupils can convert metres to centimetres.
- Pupils can convert metres to kilometres.
- Pupils can convert kilometres to metres.
- Pupils can convert centimetres to millimetres.
- Pupils can convert millimetres to centimetres.
- Pupils can measure in centimetres using a ruler.
- Pupils can measure in millimetres using a ruler.
- Pupils can find the perimeter of 2-D shapes.
- Pupils can investigate the possible perimetres of rectangles and squares.

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
	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.								

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics	Year : 4	Unit : Money

Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
money coin penny, pence, pound price, cost	• Pupils know that £1 = 100p • Pupils know that 10 x 10p = £1 • When comparing amounts, pupils know the order of the digits to compare based on their place value.			• Pupils understand decimal notation for pounds and pence. • Pupils understand why we write a decimal point between the pounds and the pence.			• Pupils can convert between pounds and pence. • Pupils can compare amounts of money with different amounts of pounds.		

Vocabulary	Knowledge			Understanding			Skills		
	What children will know			What children will understand			What children will be able to do		
Define the word and include etymology if useful.	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
buy, bought, sell, sold **spend, spent** **pay** **change** **dear, costs** **more** **cheap, costs less, cheaper** **costs the same as** **how much …?** **how many …?** **total**				• Pupils understand the equivalence between $\frac{1}{10}$, $\frac{1}{100}$ and 10p and 1p. • Pupils understand how to put decimal numbers on a number line when rounding to the nearest pound. • Pupils understand the importance of the place holder when writing amounts, e.g. three pounds and 5 pence is written as £3.05 not £3.5.			• Pupils can compare amounts of money when the amount of pounds are the same. • Pupils can round amounts to the nearest £ and the nearest £10.		

Orton Wistow Primary School – Curriculum Plan

Subject : Mathematics	Year : 4	Unit : Time

	Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
	Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
	time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year, century morning, afternoon, evening, night today, yesterday, tomorrow before, after earlier, later next, first, last midnight noon calendar, date now, soon, early, late, earliest, latest quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less how long ago? how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice	• Pupils know the number of seconds in 1 minute. Pupils know the number of seconds in 10 minutes. • Pupils know the number of months in a year.			• Pupils understand that how many minutes past the hour determines the digital time. • Pupils understand the difference between a.m times and p.m times. • Pupils understand the relationship between multiplying by 6 and multiplying by 60 when converting times.			• Pupils can tell time to the minute and hour using an analogue clock. • Pupils can use a.m. and p.m. to describe the time of day. • Pupils can use a clock to show and tell time. • Pupils can use 12-hour time notation. • Pupils can use 24-hour time notation. • Pupils can convert 12-hour time into 24-hour time and vice versa. • Pupils can determine the duration of time using analogue and digital clocks, 12- and 24-hour time. • Pupils can use a number line to compare 12- and 24-hour time. • Pupils can convert minutes into seconds and vice versa. •		

Vocabulary	**Knowledge** What children will know	**Understanding** What children will understand	**Skills** What children will be able to do
Define the word and include etymology if useful.	**Learning** Remembering	**Teaching** Telling	**Assessment** Testing	**Learning** Practising	**Teaching** Coaching	**Assessment** Observing	**Learning** Reflecting	**Teaching** Facilitating	**Assessment** Evaluating
hour, o'clock, half past, quarter past, quarter to 5, 10, 15 … minutes past a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds timetable, arrive, depart Roman numerals 12-hour clock time, 24-hour clock time									