Christleton Primary School

Maths

Year 1 – Mathematics Intent

Year 1 Maths Long Term Plan				
Autumn	Number and Place Value to 10 (5 weeks)	Addition and Subtraction to 10 (5 weeks)	Geometry Shape (2 weeks)	Consolidation and assessment (1 week)
Spring	Number and Place Value to 20 (3 weeks)	Addition and Subtraction to 20 (3 weeks)	Number and Place Value beyond 20 (3 weeks)	Measure: Length, Mass, Capacity (4 weeks)
Summer	Fractions (2 weeks)	Multiplication and Division (3 weeks)	Geometry Position and Direction (1 week)	Place Value within 100 (2 weeks)	Measures – Money (2 weeks)	Measures – Time (2 weeks)

You may need time to revisit some more challenging elements of Place Value and Addition and Subtraction again at the end of the year in addition to consolidating through Measures.

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Block 1			
Number and Place Value to 10			
Substantive Knowledge National Curriculum	Ready to Progress	Key Performance Indicators	Sequence of learning Detailed in Planning Overview
Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number	1NPV–1 Count within 100, forwards and backwards, starting with any number.	• Can count to 10 forwards starting from any number • Can count backwards to zero starting from any number up to 10	*Counting from 1-10 and using this to accurately count sets of objects, pictures, sounds and actions (Check understanding of cardinality & conservation of number from EYFS) *Counting forwards & backwards from different start numbers. *Number sequences *Identify one more/one less * Comparing amounts & using associated vocab * Comparing numbers & using associated vocab and symbols < > and = *Ordering numbers including use of ordinal numbers – first, second, third * Representing numbers using number lines
Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	• Can consistently count a set of objects to 10 accurately • Can read numbers from 1 – 10 in numerals • Can order objects using language *first, second, third* • Can write numbers to 10 in numerals • Can complete missing number sequences to 10	
Given a number, identify one more and one less		• Can identify one more than a given number to 10 • Can identify one less than a given number to 10	
Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least	1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	• Can use fingers to show any number to 10 • Can use practical equipment to represent a number to 10 • Can compare two numbers that have been created with practical equipment and explain how they are different • Can position two numbers on a marked and blank number line, compare the numbers and reason about where they have been positioned	

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Read and write numbers from 1 to 20 in numerals and words.		• Can read numbers from 1 – 10 in numerals • Can write numbers from 1 – 10 in numerals including accurate formation of all numerals 0-9 (NB reading and writing in words has been left until later blocks when more in line with Y1 phonics knowledge)	

Block 2			
Addition and Subtraction within 10			
Substantive Knowledge **National Curriculum**	**Ready to Progress**	**Key Performance Indicators**	**Sequence of learning** **Detailed in Planning Overview**
Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	• Can begin to use addition (+), subtraction (-) and equals (=) signs to record their work • Can read the mathematical statements they have recorded • Can read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=)	*Derive Addition facts to 10 using partitioning (Recap partitioning numbers to 5 and known facts from EYFS), extend to include numbers 6-10 * Recording facts as expressions then full number sentences *Commutativity
Represent and use number bonds and related subtraction facts within 20	1NF–1 Develop fluency in addition and subtraction facts within 10 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts,	• Can represent and use number bonds and related subtraction facts up to 5, using apparatus • Can recall and use addition and subtraction facts for all numbers up to 5 • Can recall and use addition and subtraction facts for all numbers up to 10 fluently • Can recognise the effect of adding zero.	*Systematic approach & Pattern spotting * Begin to know facts off by heart * Addition as aggregation & augmentation *Use practical apparatus to add

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	including recognising odd and even numbers.	• Can develop the difference between two numbers on a number line • Understands the inverse relationship between addition and subtraction • Can solve missing number calculations to 10	*Use practical apparatus on number tracks *Use number lines *Derive Subtraction facts to 10 using partitioning (Recap partitioning numbers to 5 and known facts from EYFS), extend to include numbers 6-10 * Recording facts as expressions then full number sentences *Subtraction by partitioning and reduction
Add and subtract one-digit and two-digit numbers to 20, including zero		• Can add and subtract numbers mentally, using Reordering • Can use a number line to support adding 1-digit numbers	
Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ▮ - 9.		• Can show that addition can be done in any order (commutative) • Can show that subtraction can't be done in any order • Understands and use a variety of mathematical language associated with addition and subtraction *e.g. Put together, add, altogether, total, take away, distance between, more than and less than* • Can solve missing number addition and subtraction problems involving single-digit numbers. • Can solve simple 1 step problems with addition and subtraction.	*Use practical apparatus to add *Use practical apparatus on number tracks *Use number lines *Related facts *Inverse operations *Finding missing number *Finding the difference *Problem solving

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Block 3			
Geometry			
Substantive Knowledge National Curriculum	Ready to Progress	Key Performance Indicators	Sequence of learning Detailed in Planning Overview

Recognise and name common 2-D and 3-D shapes, including:
 	
• 2-D shapes [for example, rectangles (including squares), circles and triangles]
• 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
	1G–1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.
	
	1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.
		• Can recognise 2D shapes in a variety of orientations
		  - rectangles (including squares)
		  - circles
		  - triangles
		
		• Can describe 2D shapes according to their properties (sides and corners)
		
		• Arrange 2D shapes to match a compound shape
		
		• Can recognise 3D shapes in a variety of orientations
		  - cylinder
		  - triangular prism
		  - cone
		  - cube
		  - cuboid
		  - pyramid
		  - sphere
		
		• Can describe 3D shapes according to their properties (faces, vertices and edges)
		
		• Arrange 3D shapes to match a compound shape
			*Use everyday language to describe 2D shapes
			* Recognise and name common 2D shapes (rectangles (including squares), circles, triangles at a minimum)
			* Use correct mathematical terms to describe the properties of 2D shapes and distinguish between them
			* Arrange 2D shapes to match a compound shape
			* Use everyday language to describe 3D shapes
			* Recognise and name common 3D shapes (cuboids (including cubes), cylinders, spheres and pyramids)
			* Use correct mathematical terms to describe the other properties of 3D shapes and distinguish between them

			* Arrange 3D shapes to match a compound shape

Block 4			
Number and Place Value to 20			
Substantive Knowledge **National Curriculum**	**Ready to Progress**	**Key Performance Indicators**	**Sequence of learning** **Detailed in Planning Overview**
Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number	1NPV–1 Count within 100, forwards and backwards, starting with any number.	• Can count to 20 forwards starting from any number • Can count backwards to zero starting from any number up to 20	*Understand 1 ten is equivalent to ten ones * Count sets of 11-19 objects exposing structure of _tens and _ones
Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	• Can consistently count a set of objects to 20 • Can read numbers from 1 – 20 in numerals • Can write numbers to 20 in numerals • Can complete missing number sequences forwards and backwards to 20	*Count on from ten when identifying representations of teen numbers *Represent teen numbers with practical apparatus *Identify zero as a place holder
Given a number, identify one more and one less		• Can identify one more than a given number to 20 • Can identify one less than a given number to 20	*Counting forwards and backwards and dual counting i.e. 11, 12, 13 and 1 ten & 1,
Identify and represent numbers using objects and pictorial	1NPV–2 Reason about the location of numbers to 20 within the linear number system,	• Can use practical equipment to represent any number to 20 and explain the value of each digit	1 ten & 2, 1 ten & 3 *Number sequences *One more one less

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representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least	including comparing using < > and =	• Can use pictorial representations to represent any number to 20 and explain value of each digit • Can compare two numbers that have been created with practical equipment • Can position two numbers on a marked number line, compare the numbers and reason about where they have been positioned • Can compare numbers using greater than and less than and the symbols < > and =	* Position numbers on number lines 10-20, 0-20 marked and unmarked *Comparing amounts & using associated vocab *Comparing numbers & using associated vocab and symbols < > and = *Ordering Numbers
Read and write numbers from 1 to 20 in numerals and words.		• Can read numbers from 1 – 20 in numerals • Can write numbers from 1 – 20 in numerals including accurate formation of all numerals 0-9 • Can read numbers from 1 – 20 in words • Can write numbers from 1-20 in words	*Reading & Writing numbers to 20 as words * Problem solving & consolidation

Block 5			
Addition and Subtraction within 20			
Substantive Knowledge **National Curriculum**	**Ready to Progress**	**Key Performance Indicators**	**Sequence of learning** **Detailed in Planning Overview**
Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	1AS–2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	• Can begin to use addition (+), subtraction (-) and equals (=) signs to record their work • Can read the mathematical statements they have recorded • Can read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=)	* Recap addition facts within 10 developing fluency using a variety of strategies *The effect of adding zero and one *Doubles

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			*Near doubles
Represent and use number bonds and related subtraction facts within 20	1NF–1 Develop fluency in addition and subtraction facts within 10 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	• Can recall and use addition and subtraction facts for all numbers up to 10 fluently • Can recognise the effect of adding zero. • Can represent and use number bonds and related subtraction facts up to 20, using apparatus • Can recall and use addition and subtraction facts for all numbers facts to 20 fluently • Can develop the difference between two numbers on a number line • Understands the inverse relationship between addition and subtraction • Can solve missing number calculations to 20	*Add 2 to even/odd numbers *Addition to 20 by counting on using practical resources *Reordering calculations for efficiency *Applying partitioning e.g. 10+3 12+2 *Addition to 20 on a number line – without bridging – single jumps then bigger jumps * Recall number bonds to 10 and use them to make bonds to 20 *Apply number bond knowledge
Add and subtract one-digit and two-digit numbers to 20, including zero		• Can add and subtract numbers mentally, using Reordering • Can add and subtract numbers mentally, using Partitioning • Can add and subtract numbers mentally, using Bridging through 10 • Can add and subtract numbers mentally, using near doubles • Can use a number line to support adding and subtracting 2-digit and 1-digit numbers	in addition and subtraction calculations e.g. 10-7, 13 + □ = 20 *Partitioning 10 into 3 numbers (including 0 sometimes) * Addition by bridging using known facts
Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial		• Can show that addition can be done in any order (commutative) • Can show that subtraction can't be done in any order • Understands and use a variety of mathematical language associated with addition and subtraction *e.g. Put together, add, altogether, total, take away, distance between, more than and less than*	*Subtraction by reduction and partitioning (Not structure) * Understand why you can't reorder subtraction *Applying partitioning e.g. 14-4, 16-2

representations, and missing number problems such as 7 = ▮ - 9.		• Can solve missing number addition and subtraction problems involving single-digit numbers. • Can solve simple 1 step problems with addition and subtraction.	*Subtraction within 20 on a number line – without bridging – single jumps then bigger jumps *Subtraction by bridging using known facts *Fact families and inverse operations *Missing number problems *Problem solving

Block 6			
Number and Place Value beyond 20			
Substantive Knowledge **National Curriculum**	**Ready to Progress**	**Key Performance Indicators**	**Sequence of learning Detailed in Planning Overview**
Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number	1NPV–1 Count within 100, forwards and backwards, starting with any number.	• Can count to 100 and across 100 from any given number • Can count backwards from any given number, including crossing 100	*Counting in ones forwards and backwards to 100 and beyond * Skip counting in multiples of 10
Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens	1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.	• Can read numbers from 1 – 100 in numerals • Can write numbers to 100 in numerals • Can complete missing number sequences forwards and backwards to 100 • Can count in twos to 20 forwards and backwards from any multiple	*Make links between 0-10 number line and position of multiples of 10 on 0-100 number line *Count objects efficiently by making groups of 10

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		• Can count in 10s to 100 forwards and backwards from any multiple • Can count in 5s to 50 forwards and backwards from any multiple • Can count in odd numbers - forwards and backwards • Can complete sequences in 2s, 5s, 10s	*Understand position of a digit tells you the value *Represent 2-digit numbers using concrete apparatus *Position 2-digit numbers on
Given a number, identify one more and one less		• Can identify one more than a given number to 100 • Can identify one less than a given number to 100	a number line *One more and one less
Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least	1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	• Can use practical equipment to represent any number to 100 and explain value of each digit • Can use pictorial representations to represent any number to 100 and explain value of each digit • Can compare two numbers that have been created with practical equipment • Can position numbers on a marked number line with multiples of 10 marked and reason about where they have been positioned	*Ten more and ten less *Comparing amounts & numbers using associated vocab *Odd & even numbers *Count in 2s and odd numbers -forwards and backwards from any multiple
Read and write numbers from 1 to 20 in numerals and words.		• Can read numbers from 1 – 20 in numerals • Can write numbers from 1 – 20 in numerals including accurate formation of all numerals 0-9 • Can read numbers from 1 – 20 in words • Can write numbers from 1-20 in words	*Count in 5s forwards and backwards from any multiple * Problem Solving and Consolidation

Block 7			
Measure – Length, Mass & Capacity			
Substantive Knowledge National Curriculum	Ready to Progress	Key Performance Indicators	Sequence of learning Detailed in Planning Overview

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Compare, describe and solve practical problems for: • lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]	No specific Ready to Progress statements for Measures but use context to consolidate statements such as 1NF–1 Develop fluency in addition and subtraction facts within 10 and 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	• Can use direct comparison or non-standard units to compare lengths and heights • Can estimate and measure whether an object is longer or shorter than a metre stick/ a class ruler • Can use language of longer/ shorter, tall/ short, double/ half in relation to length and height	*Comparing length/height/ width directly *Using non-standard units to compare lengths and heights *Introducing standard units of measure (cm and m)
Compare, describe and solve practical problems for: • mass/weight [for example, heavy/light, heavier than, lighter than]		• Can compare mass of objects by holding them and using direct comparison • Can use balance scales to compare the mass of objects using direct comparison or non-standard units • Can estimate and measure whether an object weighs more or less than a kilogram • Can use language of heavy/ light, heavier than and lighter than in relation to mass/weight	*Comparing Capacity directly *Using non-standard units to compare capacity *Introducing standard units of measure (litre) *Comparing Weight/Mass directly *Using non-standard units to compare weights *Introducing standard units of measure (kg)
Compare, describe and solve practical problems for: • capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]		• Can use direct comparison or non-standard units to compare the capacity of different vessels • Can estimate and measure whether a container contains more or less than a litre jug • Can use language of full/empty, more than/less than, half, full, quarter in relation to capacity/volume	
Measure and begin to record the following: • lengths and heights • mass/weight • capacity and volume		• Can use manageable standard units to measure: Length and height (cm and m) • Can use manageable standard units to measure: Mass/weight (kg) • Can use manageable standard units to measure: Capacity/volume (l) • Can decide which measuring tool could be used in a particular situation	

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Block 8			
Fractions			
Substantive Knowledge **National Curriculum**	**Ready to Progress**	**Key Performance Indicators**	**Sequence of learning** **Detailed in Planning Overview**
Recognise, find and name a half as one of two equal parts of an object, shape or quantity	No specific Ready to Progress statements for Fractions	• Understands fractions as equal parts of a whole • Can halve a shape or object by splitting it into two equal parts. • Can recognise one half as one of two equal parts of a whole • Can halve a quantity by splitting it into 2 equal sets	* Recognise, find and name a half as one of two equal parts of an object or shape * Recognise, find and name a half as one of two equal parts of a quantity * Recognise, find and name a quarter as one of four equal parts of an object or shape * Recognise, find and name a quarter as one of four equal parts of a quantity
Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		• Can quarter a shape or object by splitting it into four equal parts. • Can recognise one quarter as one of four equal parts of a whole • Can find a quarter of a quantity by splitting it into 4 equal sets	

Block 9			
Multiplication and Division			
Substantive Knowledge **National Curriculum**	**Ready to Progress**	**Key Performance Indicators**	**Sequence of learning** **Detailed in Planning Overview**
Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial	1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and	• Can use concrete objects to double numbers to 10 • Can use concrete objects to half numbers to 20 • Can count in steps of 10 • Can count in steps of 2	*Doubling *Halving *Counting in 2s, 5s and 10s (link to PV) *Making equal groups

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| representations and arrays with the support of the teacher. | backwards through the odd numbers. | • Can count in steps of 5

• Can find a total when counting in groups of 10
• Can find a total when counting in groups of 2
• Can find a total when counting in groups of 5
• Can solve word problems involving multiplication

• Can use an array to represent a multiplication fact

• Can divide by sharing objects equally

• Can divide objects by putting into groups of 2
• Can divide objects by putting into groups of 5
• Can share objects by putting into groups of 10
• Can solve word problems involving division | *Applying counting in 2s, 5s and 10s to solve 'groups of' number problems including money problems
*Repeated addition
*Arrays
*Division by sharing
*Division by grouping
*Problem solving |

Block 10
Geometry – Position & Direction

Substantive Knowledge National Curriculum	Ready to Progress	Key Performance Indicators	Sequence of learning Detailed in Planning Overview
Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	No specific Ready to Progress statements for Position & Direction	• Can distinguish between left and right • Can use positional language e.g. next to, top, middle and bottom, on top of, in front of, above, between, around, near, close and far • Can use ordinal language e.g. . 1st, 4th	*Describe position (above, below, in front of, behind, in between, next to, inside, outside etc) *Describe direction and movement without turns

		• Can use the language of direction and motion, including: left and right, up and down, forwards and backwards, inside and outside. • Can respond to the language of turns making whole turns, half turns, quarter turns and three-quarter turns • Can connect turning clockwise with movement on a clock face.	(forwards, backwards, sideways, left, right, up, down) *Describe direction and movement with turns (forwards, backwards, turn left, turn right, up, down) *Describe turns (whole, half quarter and three-quarter turns)

Block 11
Measures - Money

Substantive Knowledge National Curriculum	Ready to Progress	Key Performance Indicators	Sequence of learning Detailed in Planning Overview
Recognise and know the value of different denominations of coins and notes	No specific Ready to Progress statements for Money but use context to consolidate statements such as 1NF–2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples and 1NF–1 Develop fluency in addition and subtraction facts within 10	• Can identify coins by sorting them • Can recognise the value of each coin and that some coins have a greater value than others • Can add up small amounts of money and say how much altogether • Can pay for items of a small value *e.g. 3p, 5p, 7p, 9p using coins* • Can give change using 1p coins • Can answer questions such as: *Michael had £5. He spent £3. How much did he have left?* • *Rosie had a 10p coin. She spent 3p. How much change did she get?*	*Sorting and ordering coins *Understand that the value of each coin relates to that number of pennies or pounds *Understand that the value of each note relates to that number of pounds *Making amounts * Addition and subtraction problems including simple change

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<tr><td colspan="5" align="center">**Measure – Time**</td></tr>
<tr>
<td align="center">**Substantive Knowledge**

National Curriculum</td>
<td align="center">**Ready to Progress**</td>
<td align="center">**Key Performance Indicators**</td>
<td align="center">**Sequence of learning**
Detailed in Planning
Overview</td>
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<tr>
<td>Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</td>
<td>No specific Ready to Progress statements for Time</td>
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Can use language before, after, next, first in relation to time passing and sequencing of events in familiar stories or day-to-day routines
Can use terms such as morning, afternoon and evening, yesterday and tomorrow

</td>
<td>*Ordering events
*Days of the week
*Months of the year
*Time durations – second, minute, hour
*Telling the time to the nearest half an hour
*Duration problems with clock times</td>
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<td>Recognise and use language relating to dates, including days of the week, weeks, months and years</td>
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Can learn the order of the days of the week and learn that weekend days are Saturday and Sunday
Can name and order the months of the year
Can record significant dates in a class calendar

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<td>Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</td>
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Can tell time to the hour
Can draw hands on the clock for times to the hour
Can tell time to half past the hour
Can draw hands on the clock for times to the half hour
Can recognise times to the hour and half hour in day to day routines
Can use clocks and time lines to answer questions such as: <i>It is half past seven. What time will it be in 4 hours time? What time was it two hours ago</i>

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Measure and begin to record the following: • time (hours, minutes, seconds)		• Can measure in hours, seconds and minutes	
Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]		• Can estimate and measure whether an activity lasts longer/ less than a minute/hour • Can use language of quicker, slower, earlier and later	