Difference Communication Creativity Kindness

Y1 Maths Overview 2020-21 (with reference to Westdale's Maths Learning Progression)

TERM/LEARNING OBJECTIVES:	ACTIVITIES/SONGS:	ASSESSMENT:
Autumn Term : Numbers and Place Value- numbers to 10 (3weeks) **I KNOW** - I Can sort objects by type. - I can count and subitise a group of objects to at least 10. - I can represent a group of objects pictorially. - I can count, read and write numbers to 10. - I can add 1 more. - I can find 1 less. - I use 1 to 1 correspondence to compare the size of groups. - I use the language equal, more/greater, less /fewer to compare groups. - I begin to use <> and = symbols. - I compare numerals. - I can order groups by quantity. - I can order numbers to at least 10. - I can use ordinal numbers (1st, 2nd, 3rd …) **Autumn term : Addition and subtraction within 10 (4weeks)** **KNOW:** - I can use a part part whole model to represent the parts of a number. - I can use the + sign. - I can use the commutative law of addition to generate "fact families". - I can find number bonds for 10. - I can generate number bonds systematically. - I start to recall number bonds for 10. - I can compare number bonds for 10.e.g- 5+5=10 s0 8<5+5 - I can add number together using the recognised equation a+b=c. - I can count on to add. - I can solve missing number equations. - I can use objects and pictorial representation to show how many are left. - I can use the subtraction sign. - I can subtract using a part part whole model. - I can generate 8 fact families. - I can count back to subtract. - I can find the difference. - I can use the <,> and = to compare statements. **Autumn term: Geometry position and movement (1 week)** **KNOW:** - I can describe a turn using the language full, half, quarter and three-quarter turn. - I can use the language left, right, forwards and backwards to describe position and direction. - I can use additional vocabulary to describe the position of an object including the words- top, between, bottom, above, below etc. **Autumn term: Numbers and Place Value- numbers to 20 (2 weeks)** **KNOW:** - I can count forwards and backwards and write numbers 20 in numerals and words. - I can represent numbers 11-20 using a variety of concrete and pictorial representations. - I can partition numbers 11-20 into tens and ones. - I can find one more and one less for numbers 11-20. - I can compare the quantities of groups of objects. - I can compare numbers using <,> and = - I can order groups of objects 11-20. - I can order numbers 11-20. **Autumn term: Number addition and subtraction- numbers to 20 (2 weeks)** **KNOW:** - I can add by counting on. - I can use number bonds for 10 to make number bonds for 20. - I can add 2 single digits by partitioning digits to make 10. E.g. 6+7 is 6+4……+3=10	At Westdale when we introduce a new concept, we provide pupils with the opportunity to build competency by providing opportunities for children to experience concreate, pictorial and abstract mathematics. Concrete – children should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing. Pictorial – alongside this children should use pictorial representations. These representations can then be used to help reason and solve problems. Abstract – both concrete and pictorial representations should support children's understanding of abstract methods. Within our lessons, children are given activities that develop their fluency, reasoning and problem solving skills. Key opportunities to promote maths mastery include:- Varied representations – including obvious, peculiar and non-examples Conceptual variation Stem sentences Challenges Fluency Scaffolded differentiation Generalised statements To support children's mathematical development children will be given a wide range of resources to use this includes but isn't limited to:- counting equipment, number lines, number cards, place value equipment, standard measures, measuring equipment, shapes, scaffold frames, everyday objects, images, songs/ rhymes, video clips, cross curricular opportunities and books.	**Criteria:** **Number and place Value to 10** - Count to ten, forwards and backwards, beginning with 0 or 1, or from any given number. - Count read and write numbers to 10 in numeral and words. - Given a number, identify one more or 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 and least. **Number addition and subtraction** - Represent and number bonds and related subtraction facts within 10. - Read write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. **Geometry position and movement.** - Describe position, direction and movement including whole, half, quarter and three quarter turns. **Number and place Value to 20** - Count twenty, forwards and backwards, beginning with 0 or 1, or from any given number. - Count read and write numbers to 20 in numeral and words. - Given a number, identify one more or 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 and least. **Number addition and subtraction- numbers to 20** - Represent and number bonds and related subtraction facts within 20. - Read write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. - To add 1 digit and 2 digit numbers to 20 including 0. **Methods**: Ongoing daily maths assessment. A pupil really understands a mathematical concept, idea or technique if he or she can: • describe it in his or her own words • represent it in a variety of ways (e.g. using concrete materials, pictures and symbols) • explain it to someone else • make up his or her own examples (and non-examples) • see connections between it and other facts or ideas • recognise it in new situations and contexts • make use of it in various ways, including in new situations. If a pupil is working at greater depth they may also be able to:- • solve problems of greater complexity (i.e. where the approach is not immediately obvious), demonstrating creativity and imagination • Independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics. Teacher will also use assessment tasks and quizzes/ tests. **Evidence:** Maths books, marking, observations, pupil reasoning, maths assessments, piccollage and teacher notes.

Spring : Number addition and subtraction- numbers to 20 (2 weeks) **I KNOW:** - I can subtract- not crossing the 10. - I can subtract- crossing the 10. - I can generate fact families for 20. - I recognise subtraction is the inverse of addition. - I can compare number sentences using <,> and = **Spring : Geometry Properties of shape and pattern (1 weeks)** **I KNOW:** - I can recognise and name 3-d shapes. - I can sort 3-d shapes - I can recognise and name 2-d shapes. - I can sort 2-d shapes. - I can create patterns focusing on shape, size and colour. - **Spring : Measures Length and height (2 weeks)** **I KNOW:** - I can compare lengths and heights. - I can use non-standard units to measure lengths and heights. - I can use a ruler to measure length. **Spring : Number Place value to 50 (2 weeks)** **I KNOW:** - I can count forwards and backwards to 50. - I can partition numbers to 50 into tens and ones. - I can represent 50 use a range of concrete and pictorial models. - I can find 1 more and 1 less than numbers up to 50. - I can compare groups of objects using <,> and =. - I can compare numbers using <,> and = - I can order numbers to 50. **Spring : Number addition and subtraction (2 weeks)** **I KNOW:** - I know addition can be done in any order. - I know that consecutive numbers have a difference of two. - I investigate addition and subtraction of even and odd numbers. - I know adding zero to a number leaves the number unchanged. - I know when subtracting a number from itself gives a difference of 0. - I know that doubling a number gives and even number. - I can derive addition and subtraction facts for 20 using addition and subtraction facts for 10. **Spring : Number multiplication and division (2 weeks)** **I KNOW:** - I can count in 2s - I can count in 5s - I can count in 10's - I recognise equal and unequal groups. - I add equal groups (repeated addition).	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Key opportunities to promote maths mastery include:- Varied representations – including obvious, peculiar and non-examples Conceptual variation Stem sentences Challenges Fluency Scaffolded differentiation Generalised statements To support children's mathematical development children will be given a wide range of resources to use this includes but isn't limited to:- counting equipment, number lines, number cards, place value equipment, standard measures, measuring equipment, shapes, scaffold frames, everyday objects, images, songs/ rhymes, video clips, cross curricular opportunities and books.	**Criteria:** . **Number addition and subtraction** - Represent and number bonds and related subtraction facts within 20. - To add and subtract 1 digit and 2 digit numbers to 20 including 0. - Solve one step problems that involve addition and subtraction, using concrete and pictorial representations and missing number problems such as 7=__-9. **Geometry properties of shape and pattern.** - Recognise common 2-d and 3-d shapes including square, circle, triangle, rectangle, cubes, cuboids, pyramids and spheres. **Measures lengths and heights** - Measure and begin to record lengths and heights. - Compare, describe and solve practical problems for lengths and height.(for example long/short, longer/shorter, tall/short, double/half.) **Number and place Value to 50** - Count fifty, forwards and backwards, beginning with 0 or 1, or from any given number. - Count read and write numbers to 50 in numerals. - Given a number, identify one more or 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 and least. - **Number addition and subtraction- numbers to 20** - Represent and number bonds and related subtraction facts within 20. - Read write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. - To add 1 digit and 2 digit numbers to 20 including 0. **Number multiplication and division** - Count in multiples of 2, 5 and 10. - To solve one step problems involving multiplication and division by calculating answers using concrete objects, pictorial representations and arrays with the support of a teacher. **Methods**: Ongoing daily maths assessment. A pupil really understands a mathematical concept, idea or technique if he or she can: • describe it in his or her own words • represent it in a variety of ways (e.g. using concrete materials, pictures and symbols) • explain it to someone else • make up his or her own examples (and non-examples) • see connections between it and other facts or ideas • recognise it in new situations and contexts • make use of it in various ways, including in new situations. If a pupil is working at greater depth they may also be able to:- • solve problems of greater complexity (i.e. where the approach is not immediately obvious), demonstrating creativity and imagination • Independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics. Teacher will also use assessment tasks and quizzes/ tests. **Evidence:** Maths books, marking, observations, pupil reasoning, maths assessments, piccollage and teacher notes.
Summer : Number multiplication and division (3 weeks) **I KNOW:** - I can make an array with objects. - I recognise the importance of columns and rows in an array. - I create pictorial arrays. - I can double numbers to 20+20. - I can divide by making equal groups. - I can divide by sharing equally. **Summer : Number fractions (2 weeks)** **I KNOW:** - I can find a half of objects - I know two halves make a whole. - I can find half of a group of objects.	At Westdale when we introduce a new concept, we provide pupils with the opportunity to build competency by providing opportunities for children to experience concreate, pictorial and abstract mathematics. Concrete – children should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing. Pictorial – alongside this children should use pictorial representations. These representations can then be used to help reason and solve problems. Abstract – both concrete and pictorial representations should support children's understanding of abstract methods. Within our lessons, children are given activities that develop their fluency, reasoning and problem solving skills. Key opportunities to promote maths mastery include:- Varied representations – including obvious, peculiar and non-examples Conceptual variation	**Criteria:** . **Number Multiplication and division.** - Count in multiples of 2, 5 and 10. - To solve one step problems involving multiplication and division by calculating answers using concrete objects, pictorial representations and arrays with the support of a teacher. **Number fractions.** - Recognise, find and name a half as one of two equal parts of an object, shape or quantity - Recognise half and quarter as 'fractions of' discrete and continuous quantities by solving problems using shapes, objects and quantities. For example, they could

- I can find quarters of objects.
- I know 4 quarters make a whole.
- I can find quarters of small quantities.

Summer : Number Place value to 100 (2 weeks)

I KNOW:

- I can count forwards and backwards to 100.
- I can partition numbers to 100 into tens and ones.
- I can compare numbers to 100 using partitioning.
- I can compare numbers to 100 using <,> and =.
- I can order numbers to 100 using objects and numbers.
- I can find 1 more/ less for numbers to 100.

Summer : Measures time (1 weeks)

I KNOW:

- I can order events using mathematical vocabulary.
- I know the days of the week and can use the words yesterday, today and tomorrow.
- I know the months of the year.
- I can tell the time at o'clock on an analogue clock.
- I can tell the time at half past on an analogue clock.
- I begin to measure times using second, minute and hours.
- I select an appropriate unit of time to measure in.
- I can compare units of time using the vocabulary faster, slower, earlier and later.

Summer : Measures money (1 weeks)

I KNOW:

- I recognise coins
- I recognise notes
- I can count in coin groups using my counting in multiples knowledge.

Summer : Measures weight (1 weeks)

I KNOW:

- I can compare the weight/ mass of two objects using mathematical language.
- I can use non-standard units to measure the mass of an object.
- I use non-standard units to compare the mass of two objects.

Summer : Measures capacity (1 weeks)

I KNOW:

- I compare volumes using mathematical language.
- I can use non-standard units to measure the volume of a container.
- I use non-standard units to compare the volume of two containers.

Summer : Geometry position and movement (1 week)

I KNOW:

- I can describe a turn using the language full, half, quarter and three-quarter turn.
- I can use the language left, right, forwards and backwards to describe position and direction.

Stem sentences
Challenges
Fluency
Scaffolded differentiation
Generalised statements

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recognise and find half a length, quantity, set of objects or shape.
- Connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.

Number and place Value to 100

- Count 100, forwards and backwards, beginning with 0 or 1, or from any given number.
- Count read and write numbers to 100 in numerals.
- Given a number, identify one more or 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 and least.

Measures time

- Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- Recognise and use language relating to dates, including days of the week, weeks, months and years.
- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- Measure and begin to record time (hours, minutes and seconds).

Measures Money

- Recognise coins.
- Recognise notes.
- Counting in coins.

Measures weight

- Measure and begin to record the mass/weight.
- Compare, describe and solve practical problems for mass/weight [for example, heavy/light, heavier than, lighter than]

Measures capacity

- Measure and begin to record capacity and volume.
- Compare, describe and solve practical problems for capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]

Geometry position and movement.

- Describe position, direction and movement including whole, half, quarter and three quarter turns.

Methods:
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• describe it in his or her own words
• represent it in a variety of ways (e.g. using concrete materials, pictures and symbols)
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