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|  | Term One | Term Two | Term Three |
| N  U  M  B  E  R | Count forwards in ones within 50, from different starting numbers.  Count backwards in ones within 50, from different starting numbers.  Count forwards in twos within 50, from different starting numbers (even then odd).  Count backwards in twos within 50, from different starting numbers (even then odd).  Recognise spoken numbers within 50.  Read numbers within 50.  Write numbers within 50.  Know number “after” within 50.  Know number “before” within 50.  Know number “between” within 50.  Identify missing numbers in a sequence of consecutive numbers within 50.  Order a set of consecutive numbers (increasing and decreasing) within 50.  Order as set of non-consecutive numbers (increasing and decreasing) within 50.  Find the position of any number on a blank 50 grid.  Demonstrate value of any number within 50 in terms of tens and ones (units) using Base 10 materials.  Use ordinal terms to tenth place.  Understand that addition is commutative (i.e. that the order in which you add numbers does not affect the total).  Add numbers within 50 using a number-line, recording horizontally.  Mentally add 1, 2 or 0 to any number, answers within 50.  Mentally add a single digit to 10, using and explaining number patterns.  Understand that subtraction ***is not*** commutative.  Subtract numbers within 50 using a number-line, using both counting back and counting on (difference) methods, recording horizontally.  N  U  M  B  E  R  Understand wide range of language used to describe operations of addition and subtraction.  Solve problems involving addition and subtraction, selecting the appropriate operation.  Understand that addition and subtraction are inverse operations, and use to check calculations.  Mentally subtract 1, 2 or 0 from any number, answers within 50.  Calculate change required when buying items, paying with amounts up to 20p.  Use efficient methods to find the total of a mixed group of coins totals up to 50p (e.g. by starting with the highest value coins, or by grouping lower value coins into 10p piles).  Understand relationships between coins up to 50p. | Count forwards in ones within 100, from different starting numbers.  Count backwards in ones within 100, from different starting numbers.  Count forwards in twos within 100, from different starting numbers (even then odd).  Count backwards in twos within 100, from different starting numbers (even then odd).  Recognise spoken numbers within 100.  Read numbers within 100.  Write numbers within 100.  Know number “after” within 100.  Know number “before” within 100.  Know number “between” within 100.  Identify missing numbers in a sequence of consecutive numbers within 100.  Order a set of consecutive numbers (increasing and decreasing) within 100.  Order as set of non-consecutive numbers (increasing and decreasing) within 100.  Find the position of any number on a blank 100 grid.  Demonstrate value of any number within 100 in terms of tens and ones (units) using Base 10 materials.  Add 10 to any number using the 50 grid, using and explaining number patterns.  Add a multiple of 10 to a multiple of 10 using the 50 grid, using and explaining number patterns.  Add a multiple of 10 to any number using the 50 grid, using and explaining number patterns.  Know doubles to 10 + 10.  Know components of 10.  Find what must be added to a number to make 10.  Subtract 10 from any number using the 50 grid, using and explaining number patterns.  Subtract a multiple of 10 from a multiple of 10 using the 50 grid, using and explaining number patterns.  Subtract a multiple of 10 from any number using the 50 grid, using and explaining number patterns.  Mentally subtract a single digit from 10, using both counting back and counting on (difference) together with knowledge of components of 10.  Find different ways of paying exact amounts within 50p, e.g. using the least number of coins.  Calculate change required when buying items, paying with amounts up to 50p. | Count forwards in tens within 100, from different starting numbers (multiples of 10, then any number).  Count backwards in tens within 100, from different starting numbers (multiples of 10, then any number).  Count forwards in fives within 100, from different starting numbers (multiples of 5).  Count backwards in fives within 100, from different starting numbers (multiples of 5).  Understand concepts of odd and even numbers through use of practical materials practical materials.  Recognise odd and even numbers.  Understand that numbers are made up of digits.  Understand that the value of a digit depends on its position within a number.  Understand the concept of grouping and exchanging using random materials (e.g. exchanging 10 single matchsticks for a bundle of 10, ten 1p coins for a 10p coin).  Understand the concept of grouping and exchanging using Base 10 materials.  Use knowledge of place value to develop a practical method for vertical addition TU (no carrying).  Develop a standard written method for vertical addition TU (no carrying), estimating the answer before calculating.  Mentally add 10 to any number, answers within 50, using and explaining number patterns  Mentally add a multiple of 10 to a multiple of 10, answers within 50, using and explaining number patterns Mentally add a multiple of 10 to any number, answers within 50, using and explaining number patterns.  Know near doubles, answers within 10.  Know remaining addition facts within 10 (3+5, 5+3, 3+6, 6+3)  Use knowledge of place value to develop a practical method for vertical subtraction TU (no exchange).  Develop a standard written method for vertical subtraction TU (no exchange), estimating the answer before calculating.  Mentally subtract 10 from any number, answers within 50, using and explaining number patterns.  Mentally subtract a multiple of 10 from a multiple of 10, answers within 50, using and explaining number patterns.  Mentally subtract a multiple of 10 from any number, answers within 50, using and explaining number patterns.  From 3 given numbers within 10, give 2 addition and 2 subtraction facts  Understand concept of multiplication as repeated addition of equal sets (initially with sets of 2).  Compare different ways of spending a fixed budget up to 50p.  Discuss ways of managing money effectively: e.g. keeping money safe, how to make pocket money last, advantages of saving a regular amount of money each week etc. |
| PROCESSES | Select with help from the teacher, materials and equipment to use in a task by understanding their special characteristics. Choose and use appropriate number operations and mental strategies to solve problems in a wide variety of contexts. Talk about the information that needs to be gathered. Select, with help, appropriate forms of mathematical representation. Understand and use an increasing range of mathematical language and symbols. Begin to respond to open-ended questions. Discuss possible approaches to solving a problem. Suggest ways of recording information. Use personal methods to record findings/present information. Use a variety of mathematical representations to present findings. Begin to explain their thinking. | | |

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|  | Term One | Term Two | Term Three |
| M  E  A  S  U  R  E  S | Estimate and measure length using non-standard units (including parts of the body).  Estimate and measure weight using non-standard units.  Understand that capacity is a measure of how much a container can hold when full.  Estimate and measure capacity using non-standard units.  Understand that area is a measure of how much space a surface covers.  Estimate and measure area using non-standard units, understanding that they should leave no gaps.  Understand and use quarter past: analogue and digital time.  Calculate durations involving hour, half past and quarter past start and finish times.  Calculate how long it will be until an event starts: hour, half hour and quarter hour answers only.  Understand and use am and pm. | Choose and use suitable non-standard units to estimate and then measure the length of an object. Explain reasons for choice.  Choose and use suitable non-standard units to estimate and then measure the weight of an object. Explain reasons for choice.  Choose and use suitable non-standard units to estimate and then measure the capacity of a container. Explain reasons for choice.  Choose and use suitable non-standard units to estimate and then measure the area of a surface. Explain reasons for choice. Understand why it is important that the units chosen should not leave gaps.  Know the correct sequence of the days of the week  Be able to say what day it is to-day, yesterday, tomorrow.  Know there are 7 days in a week and use to calculate durations etc. | Appreciate the conservation of length through practical investigations.  Appreciate the need for a standard unit of length.  Appreciate the conservation of weight through practical investigations.  Appreciate the need for a standard unit of weight.  Appreciate the conservation of capacity through practical investigations.  Appreciate the need for a standard unit of capacity.  Appreciate the conservation of area through practical investigations.  Know the correct sequence of the months of the year  Be able to say what month it is this month, last month, next month.  Know there are 12 months in a year and use to calculate durations etc. |
| S S  H P  A & A  P C  E E | Recognise and use the mathematical names for 3D shapes- cube, cuboid, sphere, cylinder, cone.  Recognise line drawings representing 3D shapes.  Recognise and use mathematical names for increasing range of 2D shapes: Pentagon, Hexagon.  Recognise that shapes may be Regular or Irregular.  Use 2 criteria sorting diagrams (e.g. Tree, Venn, Carroll) to sort and group 2D shapes, 3D shapes and mixed sets of 2D and 3D shapes according to their properties. | Describe the properties of known 2D shapes using appropriate mathematical language.  Describe the properties of known 3D shapes using appropriate mathematical language.  Name the 2D shapes which make the faces of 3D shapes.  Follow and give instructions for movement, involving distances and turning movements (right angle turns only).  Understand and use terms “forwards” “backwards” followed by a specific distance to describe movement.  Understand and use terms “left” and “right” (from own perspective) to describe turns. | Create repeating patterns using 3 or more different 2D shapes.  Create repeating patterns using 3 or more different 3D shapes.  Program Beebot to move along straight line and through right-angled turns, e.g. through a simple maze. Initially enter commands one at a time, then entering a whole procedure of commands before pressing “go”. |
|  | Term One | Term Two | Term Three |
| H  A  N D  D A  L T  I A  N  G | Use given two criteria Tree and Venn Diagrams to sort for negation, explaining completed diagram (e.g stating how many coins were sliver but not round)  Sort Attribute Blocks on two criteria Tree and Venn Diagrams.  Collect information relevant to a topic and record in a table. | Use given two criteria Carroll Diagrams to sort for negation, explaining completed diagram (e.g stating how many coins were not sliver *and* not round).  Sort Attribute Blocks on two criteria Carroll Diagrams.  In groups, and individually, organise the recording of data in tables, and display information using pictographs and block graphs (vertical and horizontal), including labels and titles. Choose, giving reasons whether to use a pictograph or a block graph. Discuss the information shown and draw conclusions. | Record results of sorting on given blank Tree, Venn and Carroll Diagrams using own drawings. Explain what their drawing represents. Suggest own ways of sorting, and label diagrams accordingly.  Enter information into a simple database and use database to answer simple 1 criterion questions. |