

Year 5 End of Unit Milestones

Autumn Term – TEXTBOOK 5A

Chapter 1 Number and Place Value: Numbers to 1 000 000

By the end of this unit, children will be able to:

- read and represent numbers to 100 000
- read and represent numbers to 1 000 000
- read and represent numbers to 1 000 000 using number discs
- compare numbers to 1 000 000 using place value
- compare numbers to 1 000 000 using pictorial representations and proportionality
- compare numbers to 1 000 000 from pictorial representations, using lists and number lines
- make and identify patterns in numbers using knowledge of place value
- make number patterns that decrease in multiples of 10 000 or 100 000
- round numbers to the nearest 10 000, 100,000 using number lines and bar graphs
- round numbers to the nearest 100, 1000, 10 000 and 100 000 using number lines.

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Chapter 2 Calculations: Addition and Subtraction

By the end of this unit, children will be able to:

- add using the 'counting on' strategy with concrete materials and number lines
- subtract using the 'counting backwards' strategy with concrete materials
- add numbers within 1 000 000 using rounding and concrete materials
- use addition and subtraction to solve comparison problems with numbers to 1 000 000
- add numbers within 1 000 000 using the column method of addition
- subtract using the column method, number bonds and number discs using numbers to 1 000 000
- add and subtract using number bonds as a key strategy using numbers within 1 000 000
- consolidate and refine addition skills and place-value knowledge to solve addition problems
- subtract numbers to 1 000 000 using concrete materials, the column method and number bonds
- consolidate and refine subtraction skills and place-value knowledge to solve subtraction problems.

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Chapter 3: Calculations: Multiplication and Division

By the end of this unit, children will be able to:

- consolidate and review multiplication; to find the result of multiplying by a number
- consolidate and review multiplication; to find the numbers we can multiply by to get a number
- define and find common factors of numbers to 100
- identify and name the prime numbers; to recognise prime numbers as numbers that only have 2 factors

- define and determine prime numbers to 100
- create and determine square and cubed numbers
- multiply 1- and 2-digit numbers by 10, 100 and 1000
- multiply 2- and 3-digit numbers by a 1-digit number using multiple strategies
- multiply 4-digit numbers by 1-digit numbers with regrouping, using a variety of strategies
- multiply a 4-digit number by a 1-digit number, with regrouping from the ones, tens and hundreds, using multiple methods
- multiply 2-digit numbers by 2-digit numbers using multiple methods
- multiply a 2-digit number by a 2-digit number using multiple methods, including the grid method, number bonds and column method, with regrouping
- multiply a 3-digit number by a 2-digit number, with the grid method and column method as key strategies
- multiply a 3-digit number by a 2-digit number with regrouping, using the column method as the key strategy
- find thousands, hundreds and tens in a 4-digit number using concrete materials
- divide 3- and 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods
- divide 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods.

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Chapter 4: More Word Problems

By the end of this unit, children will be able to:

- solve word problems involving multiple operations; to be able to identify the operation required to carry out the plan.
- solve word problems involving multiplication and division, using bar models as the main heuristic.
- solve word problems involving multiple operations, identifying key information and representing information using bar model diagrams.
- solve word problems involving multiple operations, using bar models as the main heuristic to represent key information.
- apply knowledge of whole numbers to solve problems.

Autumn Term – TEXTBOOK 5A

Chapter 5 Statistics: Graphs

By the end of this unit, children will be able to:

- read the information presented in a table and interpret its meaning
- read and respond to information presented in a table
- read and respond to tables that have a variety of data sets
- read and interpret information provided in a line graph where a single line represents the data and where the data is represented by more than one line
- read and interpret information presented in a table and turn it into a line graph; to determine relationships between data sets.

Spring Term – TEXTBOOK 5B

Chapter 6 Fractions, Decimals & Percentages: Fractions

By the end of this unit, children will be able to:

- divide whole numbers to create fractions; to create mixed numbers and improper fractions when dividing whole numbers
- write improper fractions and mixed numbers using a number line and pictorial methods
- find equivalent fractions using pictorial methods
- compare and order fractions using the pictorial method
- compare and order improper fractions using the pictorial method
- compare mixed numbers using pictorial representations; to find common denominators where one fraction is already the common denominator for all fractions in the question
- make number pairs (number bonds) with fractions with different denominators
- add unlike fractions by finding a common denominator using pictorial methods
- add unlike fractions by finding a common denominator using pictorial methods
- add together unlike fractions where the sum is greater than 1, creating mixed numbers or improper fractions
- add unlike fractions which create improper fractions and mixed numbers that give rise to simplification
- subtract fractions with different denominators; to subtract fractions from whole numbers
- subtract fractions where the denominators are not the same; to use bar models as a key strategy for subtracting fractions
- subtract fractions and mixed numbers from mixed numbers with different denominators
- multiply fractions by whole numbers creating other fractions, mixed numbers or improper fractions
- multiply fractions by whole numbers where the product is an improper fraction or mixed number
- multiply mixed numbers by whole numbers, creating larger mixed numbers
- multiply mixed numbers by whole numbers in multi-step word problems.

Spring Term – TEXTBOOK 5B

Chapter 7 Fractions, Decimals Percentages: Decimals

By the end of this unit, children will be able to:

- read and write decimals
- compare tenths and hundredths written as decimals
- order and compare decimals
- compare and order decimals of amounts
- write fractions as decimals
- add and subtract amounts in decimals
- add and subtract decimals; to add and subtract amounts in pounds and pence
- add and subtract decimals to find the smallest possible sum and difference
- add and subtract decimals; to find number pairs that add up to 1
- add and subtract the perimeter of an object using decimals
- round decimals to the nearest whole number; to round numbers to nearest tenth.

Spring Term – TEXTBOOK 5B

Chapter 8 Fractions, Decimals Percentages: Percentages

By the end of this unit, children will be able to:

- compare quantities
- compare fractions, decimals and percentages
- convert fractions to decimals and percentages
- convert values of an amount into percentages
- convert fractions into percentages.

Spring Term – TEXTBOOK 5B

Chapter 9 Geometry – Properties of Shape: Geometry

By the end of this unit, children will be able to:

- know the names and qualities of acute, right, obtuse and reflex angles
- measure angles using a protractor
- draw, measure and add angles using a protractor
- measure angles using a protractor; to identify two angles which add up to 180 degrees on a straight line
- investigate angles that, when combined, make 360 degrees
- draw angles using a protractor
- draw lines and angles with a high level of accuracy
- describe the sides and angles of both rectangles and squares
- investigate the angles of various quadrilaterals, including squares and rectangles
- solve problems involving angles in rectangles
- solve problems involving angles
- use our understanding of angles to solve problems
- investigate and explain the properties of regular polygons.

Summer Term – TEXTBOOK 5B

Chapter 10 Geometry – Position and Direction: Position and Movement

By the end of this unit, children will be able to:

- name and plot points
- describe the position of a shape following a translation
- describe movements and reflecting shapes
- describe the movement of a 2-D shape when reflected
- reflect a shape more than once.

Summer Term – TEXTBOOK 5B

Chapter 11 Measurement: Measurement

By the end of this unit, children will be able to:

- convert units of length
- convert units of length, including centimetres and metres
- convert units of length
- solve problems by converting units of length
- convert units of mass, including grams into kilograms
- convert units of time
- convert units of time from days into weeks and months
- solve problems by converting units of time
- convert units of time
- read the temperature on a thermometer.

Summer Term – TEXTBOOK 5B

Chapter 12 Measurement: Area and Perimeter

By the end of this unit, children will be able to:

- find the perimeter of shapes
- find shapes with a specific perimeter
- find the perimeter of different shapes
- use scale diagrams to find the perimeter of a shape
- measure the area of shapes by counting squares
- measure the area of squares
- measure the area of a shape
- measure area in square metres
- find the area of shapes in square metres.
- make an estimation of area in kilometres.

Summer Term – TEXTBOOK 5B

Chapter 13 Measurement: Volume

By the end of this unit, children will be able to:

- understand the volume of solids
- find the volume of 3-D shapes
- find the volume of solids
- find the capacity of a cuboid
- find the capacity of rectangular boxes
- compare and convert units of volume

- convert units of volume (metric and imperial)
- solve word problems involving volume.

Summer Term – TEXTBOOK 5B

Chapter 14 Number and Place Value: Roman Numerals

By the end of this unit, children will be able to:

- write Roman numerals to 1000
- write numbers in their thousands in Roman numerals.