UK Key Stage 3 Mathematics

EP Curriculum Map

The Key Stage 3 Mathematics module provides extensive coverage of the Working Mathematically standards and they are integrated throughout the various topics.

Number

Specific Expectations	Lessons	Lessons
N.1 understand and use place value for decimals, measures and integers of any size	Place Values to Hundreds Place Values to Millions Numbers in Written Form Expanding Numbers Multi Digit Odd and Even Numbers Nested Place Value Ordering Whole Numbers Introduction to Decimals Decimal Place Values Tenths Hundredths Thousandths and Beyond	Activity: Place Value Codebreaking Activity: Place Value Codebreaking Student Worksheet Activity: Place Value Codebreaking Teacher Guide Practice Questions: Introduction to Decimals Practice Questions: Decimal Place Values Practice Questions: Tenths Practice Questions: Hundredths Practice Questions: Thousandths and Beyond
N.2 order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥	Fractions and Number Lines Fractions on a Number Line Comparing Fractions Generate Fractions Between Any Two Quantities Comparing Fractions with the Same and Different Denominators Practice Questions: Comparing Fractions Practice Questions: Fractions and Number Lines Practice Questions: Fractions on a Number Line Practice Questions: Comparing Fractions with the Same Denominator	Positive Integers Introduction to Negative Numbers Negative Numbers on the Number Line Negative Integers Rounding Negative Numbers Practice Questions: Negative Integers Comparing & Ordering Integers Ordering Negative Integers

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N.2 *(continued)* order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥	Activity: Ordering Integers Lotto Activity: Ordering Integers Lotto Student PDF Activity: Ordering Integers Lotto Teacher PDF Practice Questions: Comparing & Ordering Integers Practice Questions: Ordering Negative Integers How Decimals Work Comparing Decimals Comparing Decimals on the Number Line Generate decimals between any two numbers Comparing and Ordering Fractions as Decimals	Practice Questions: Comparing Decimals Practice Questions: Comparing Fractions as Decimals Introduction to Scientific Notation (Standard Form) - Large Numbers Introduction to Scientific Notation (Standard Form) - Small Numbers
N.3 use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation property	Multiples Applications of Multiples Lowest Common Multiple Practice Questions: Multiples Square Numbers Calculating Square Numbers Calculating Powers Perfect Squares Squares and Cubes Index Notation Square Roots Square Roots of Non-Perfect Squares Practice Questions: Perfect Squares Practice Questions: Square Roots Practice Questions: Square Roots of Non-Perfect Squares Practice Questions: Mixed Squares and Square Roots Practice Questions: Square Numbers Practice Questions: Calculating Square Numbers	Prime Numbers Composite Numbers Prime & Composite Numbers Factors Identifying Factors Factor Trees Applying Prime Factors Greatest Common Factor Prime Factors and the HCF Prime Factors and the LCM Practice Questions: Prime Numbers Practice Questions: Composite Numbers Practice Questions: Prime & Composite Numbers Practice Questions: Factors Practice Questions: Factors & Multiples Practice Questions: Mixed Factors & Multiples Practice Questions: Prime Factors Practice Questions: Mixed Prime Numbers and Prime Factors Practice Questions: Factor Trees

N.4 use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative	**Adding and subtracting integers** Adding & Subtracting Integers Adding Negative Numbers Subtracting Negative Numbers Applying Addition and Subtraction Practice Questions: Integers Practice Questions: Adding & Subtracting Integers Practice Questions: Mixed Arithmetic Integers Integer Addition Integer Subtraction Addition: Single Digits Addition: Double Digits (No Carrying) Addition: Double Digits (Carrying) Addition: Triple Digits (No Carrying) Addition: Triple Digits (Carrying) Subtraction: Single Digits Subtraction: Double Digits (Carrying) Subtraction: Double Digits (No Carrying) Subtraction: Double Digits (Carrying) Subtraction: Triple Digits (No Carrying) Subtraction: Triple Digits (Carrying) Addition and Subtraction: Single Digits Addition and Subtraction: Double Digits Addition and Subtraction: Triple Digits **Adding and subtracting decimals** Adding Decimals Applications of Adding Decimals Subtracting Decimals Applications of Subtracting Decimals Summary: Adding and Subtracting Decimals Practice Questions: Adding Decimals	Practice Questions: Subtracting Decimals Practice Questions: Applications of Adding Decimals Practice Questions: Applications of Subtracting Decimals **Adding and subtracting fractions** Adding Fractions with the Same Denominator Adding Mixed Fractions with the Same Denominator Adding Mixed Numbers with the Same Denominator Adding Whole Numbers and Fractions Adding Fractions with Related Denominators Adding Fractions with a Different Denominator Adding Fractions Practice Questions: Adding Fractions with the Same Denominator 1 Practice Questions: Adding Fractions with the Same Denominator 2 Practice Questions: Adding Fractions with the Same Denominator 3 Practice Questions: Adding Mixed Numbers with the Same Denominator 1 Practice Questions: Adding Mixed Numbers with the Same Denominator 2 Practice Questions: Adding Whole Numbers and Fractions Practice Questions: Adding Fractions with Related Denominators Practice Questions: Adding Fractions with a Different Denominator Subtracting Fractions with the Same Denominator Subtracting Fractions with a Different Denominator *Continues on next page*

N.4 *(continued)* use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative	**Adding and subtracting fractions *(continued)*** Subtracting Fractions from One Whole Subtracting Fractions from Whole Numbers Subtracting Mixed Fractions with the Same Denominator Subtracting Mixed Numbers with the Same Denominator Subtracting Fractions with Related Denominators Subtracting Fractions Subtracting Mixed Fractions with a Different Denominator Subtracting Fractions with the Same Denominator Practice 1 Subtracting Fractions with the Same Denominator Practice 2 Subtracting Fractions with the Same Denominator Practice 3 Subtracting Fractions from One Whole Practice Subtracting Fractions from Whole Numbers Practice Subtracting Mixed Numbers with the Same Denominator Practice Subtracting Fractions with Related Denominators Practice Subtracting Fractions with a Different Denominator Practice Subtracting Mixed Numbers with a Different Denominator Practice Fraction Word Problems Practice Questions: Fraction Word Problems **Multiplying and dividing integers** Divisibility Rules: Odd and Even Numbers Divisibility Rules: Dividing by 4 & 8 Divisibility Rules: Dividing by 3, 6 & 9	Divisibility Rules: Dividing by 5 & 10 Multiplication Using Place Value Multiplying Big Numbers Column Multiplication Multiplication Using Rounding and Compensation Area Models Division in Parts Long Division Short Division - Without Remainders Short Division - With Whole Number Remainders Negative Integer Multiplication and Division Applying Multiplication and Division Solving Problems Involving Division of Whole Numbers by Tenths **Multiplying and dividing decimals** Multiplying Decimals and Whole Numbers Multiplying Decimals by Decimals Multiplying and Dividing in Scientific Notation (Standard Form) Dividing Decimals by Whole Numbers Dividing Decimals by Decimals Summary: Multiplying, Dividing and Rounding Decimals Practice Questions: Multiplying Decimals and Whole Numbers Practice Questions: Multiplying Decimals Practice Questions: Multiplying Decimals by Decimals Practice Questions: Dividing Decimals by Whole Numbers Practice Questions: Dividing Decimals by Decimals *Continues on next page*

N.4 *(continued)* use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative	**Multiplying and dividing decimals *(continued)*** Multiplying Decimals by Whole Numbers 2 (1SF × 1SF). Multiplying Decimals by Whole Numbers (2SF × 1SF). Multiplying Decimals by Whole Numbers (3SF × 1SF). Multiplying Decimals by Decimals (1SF × 1SF). Dividing Whole Numbers by Tenths (1SF ÷ 1SF). Dividing Whole Numbers by Tenths (2SF ÷ 1SF). Dividing Whole Numbers by Tenths (3SF ÷ 1SF). Dividing Decimals by Whole Numbers (2SF ÷ 1SF). Dividing Decimals by Whole Numbers (3SF ÷ 1SF). Dividing Decimals by Decimals (2SF ÷ 1SF). Multiplying Decimals and Whole Numbers (Practice Questions) **Multiplying and dividing fractions** Introducing Multiplication: Fractions of Fractions Multiplying Fractions Multiplying Fractions Using Models Multiplying Fractions Numerically	Fractions as Division Dividing Whole Numbers by Proper Fractions Dividing Fractions Dividing Fractions by Simplifying Practice Questions: Multiplying Fractions Practice Questions: Dividing Fractions **Calculate efficiently (BIDMAS)** 4 Operations (+/-/x/÷) Positive Integers 1 4 Operations (+/-/x/÷) Positive Integers 10 4 Operations (+/-/x/÷) Positive Integers 2 4 Operations (+/-/x/÷) Positive Integers 3 4 Operations (+/-/x/÷) Positive Integers 4 4 Operations (+/-/x/÷) Positive Integers 5 4 Operations (+/-/x/÷) Positive Integers 6 4 Operations (+/-/x/÷) Positive Integers 7 4 Operations (+/-/x/÷) Positive Integers 8 4 Operations (+/-/x/÷) Positive Integers 9
N.5 use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals N.6 recognise and use relationships between operations including inverse operations	**Calculate efficiently (BIDMAS)** 4 Operations (+/-/x/÷) Positive Integers 1 4 Operations (+/-/x/÷) Positive Integers 10 4 Operations (+/-/x/÷) Positive Integers 2 4 Operations (+/-/x/÷) Positive Integers 3 4 Operations (+/-/x/÷) Positive Integers 4 4 Operations (+/-/x/÷) Positive Integers 5 4 Operations (+/-/x/÷) Positive Integers 6 4 Operations (+/-/x/÷) Positive Integers 7	4 Operations (+/-/x/÷) Positive Integers 8 4 Operations (+/-/x/÷) Positive Integers 9 The Commutative Law The Associative Law The Distributive Law Using the Distributive Law The Order of Operations Preserving the Order of Operations Practice Questions: Commutative Law Practice Questions: Associative Law Practice Questions: Distributive Law Practice Questions: Mixed Arithmetic Laws

N.7 use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations	Square Numbers Calculating Square Numbers Calculating Powers Perfect Squares Squares and Cubes	Index Notation Square Roots Square Roots of Non-Perfect Squares
N.8 interpret and compare numbers in standard form A x 10n 1≤A<10, where n is a positive or negative integer or zero	Introduction to Scientific Notation (Standard Form) - Large Numbers Introduction to Scientific Notation (Standard Form) - Small Numbers	Ordering Numbers and Estimating Calculations in Scientific Notation (Standard Form)
N.9 work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and 27 or 0.375 and 83)	Converting Between Fractions and Decimals Converting Decimals to Fractions Practice Questions: Converting Between Fractions and Decimals Practice Questions: Percentages, Decimals and Fractions Practice Practice Questions: Mixed Converting Between Fractions, Decimals and Percentages	Converting Between Percentages, Decimals and Fractions Percentages, Decimals and Fractions Mixed Applications: Fractions, Decimals and Percentages - Town Planning Activity: Real Number Dominoes Activity: Real Number Dominoes Student Worksheet
N.10 define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%	Percentage of a Whole Percentage of a Whole: Eighths and Thirds Percentage of a Whole: Common Fractions Converting Between Percentages and Fractions Converting Between Percentages and Fractions: Simplifying Fractions Converting Percentages and Decimals Converting Between Percentages, Decimals and Fractions Percentages, Decimals and Fractions Mixed Applications: Fractions, Decimals and Percentages - Town Planning Activity: Real Number Dominoes Activity: Real Number Dominoes Student Worksheet Activity: Real Number Dominoes Teacher Guide Practice Questions:	Converting Between Percentages and Fractions Practice Questions: Converting Between Fractions and Decimals Practice Questions: Percentages and Decimals Practice Questions: Converting Between Decimals and Percentages Practice Questions: Percentages, Decimals and Fractions Practice Practice Questions: Mixed Converting Between Fractions, Decimals and Percentages Percentage of an Amount Percentages of Amounts: Using a Calculator Percentages of a Number

N.11 interpret fractions and percentages as operators	**Understanding and ordering fractions** Unit Fractions Practice Questions: Introduction to Fractions Practice Questions: What is a Fraction? Practice Questions: Unit Fractions Using Fractions Equivalent Fractions Simplifying Fractions Using Equivalent Fractions Simplifying Fractions Using GCF Practice Questions: Equivalent Fractions Proper and Improper Fractions Mixed and Improper Fractions Mixed Numbers Types of Fractions: Mixed Numbers Converting Mixed Numbers Practice Questions: Converting Mixed Numbers Practice Questions: Mixed Numbers Practice Questions: Simplifying Fractions Practice Questions: Proper and Improper Fractions Practice Questions: Mixed Numbers	**Fractions, decimals and percentages** Percentage of a Whole Percentage of a Whole: Eighths and Thirds Percentage of a Whole: Common Fractions Converting Between Percentages and Fractions Converting Between Percentages and Fractions: Simplifying Fractions Converting Percentages and Decimals Converting Between Percentages, Decimals and Fractions Percentages, Decimals and Fractions Mixed Applications: Fractions, Decimals and Percentages - Town Planning Activity: Real Number Dominoes Activity: Real Number Dominoes Student Worksheet Activity: Real Number Dominoes Teacher Guide Practice Questions: Converting Between Percentages and Fractions Practice Questions: Converting Between Fractions and Decimals Practice Questions: Percentages and Decimals Practice Questions: Converting Between Decimals and Percentages Practice Questions: Percentages, Decimals and Fractions Practice Practice Questions: Mixed Converting Between Fractions, Decimals and Percentages Percentage of an Amount Percentages of Amounts: Using a Calculator Percentages of a Number

N.12 use standard units of mass, length, time, money and other measures, including with decimal quantities	Units of Measurement The Metric System Unit Prefixes Units of Mass Interpreting Units of Mass Converting Units of Mass Applications of Converting Units of Mass Units of Length Interpreting Units of Length Method for Converting Units of Length Converting Units of Length Comparing Units of Length Units of Area Converting Between Units of Area Converting Between Units of Area Applications	Volume Choosing Appropriate Units of Volume Converting Units of Volume Capacity and Volume Units of Capacity Interpreting Units of Capacity Converting Units of Capacity Converting Further Units of Capacity and Applications Applications of Converting Units of Capacity Duration Recording Time Splitting Up Time 12-Hour Time 24-Hour Time Converting 12- and 24-Hour Time Introduction to Analog Clocks Reading Analog Clocks
N.13 round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures]	Introduction to Rounding Rounding Decimal Numbers Rounding Sensibly Rounding Based on Given Values	Practice Questions: Rounding Decimals Practice Questions: Terminating Decimals and Rounding
N.14 use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a<x\leq b$	Leading Digit Approximation Consequences of Rounding	
N.15 use a calculator and other technologies to calculate results accurately and then interpret them appropriately	Percentages of Amounts: Using a Calculator Activity: Plotting Using a Calculator	Activity: Introduction to Spreadsheets Activity: Plotting Using a Spreadsheet
N.16 appreciate the infinite nature of the sets of integers, real and rational numbers.	Positive Integers Introduction to Negative Numbers Negative Integers Comparing & Ordering Integers Ordering Negative Integers	Square Roots of Non-Perfect Squares Generate decimals between any two numbers Comparing and Ordering Fractions as Decimals

Algebra

Specific Expectations	Lessons	Lessons
A.1 use and interpret algebraic notation, including: • ab in place of a × b • 3y in place of y + y + y and 3 × y • a^2 in place of a × a, a^3 in place of a × a × a; a^2b in place of a × a × b a/b in place of a÷b • coefficients written as fractions rather than as decimals • brackets	Welcome to Algebra Writing and Evaluating Algebraic Expressions Translating Between Authentic Situations and Algebraic Expressions Understanding Algebraic Expressions Activity: Opening a New Aquarium Practice Questions: Introduction to Algebra Practice Questions: Relating Words to Algebra Practice Questions: Translating Between Situations and Algebraic Expressions Practice Questions: Writing and Evaluating Algebraic Expressions	Arithmetic in Algebra Order of Operations in Algebra Order of Operations in Algebraic Equations Summary: Variables, Conventions and Arithmetic Practice Questions: Operations in Algebra Algebraic Conventions Definitions List: Patterns and Algebra Definitions List: Patterns and Algebra Definitions MCQ: Patterns and Algebra Spelling List: Patterns and Algebra
A.2 substitute numerical values into formulae and expressions, including scientific formulae	Writing and Evaluating Algebraic Expressions Introduction to Substitution Substitution in Algebraic Expressions Substitution and Evaluation Substituting and Evaluating Algebraic Expressions Evaluating Algebraic Expressions Substituting to Solve Linear (and Non-Linear) Equations Checking Solutions	Practice Questions: Checking Solutions Practice Questions: Evaluating Algebraic Expressions Using Formulas Summary: Evaluating Expressions and Using Formulas Practice Questions: Formulas
A.3 understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors	Welcome to Algebra Understanding Algebraic Expressions Algebraic Conventions	Definitions List: Patterns and Algebra Definitions MCQ: Patterns and Algebra Spelling List: Patterns and Algebra

A.4 simplify and manipulate algebraic expressions to maintain equivalence by: • collecting like terms • multiplying a single term over a bracket • taking out common factors • expanding products of two or more binomials	**Manipulate Algebraic Expressions** Introduction to Like Terms Simplifying Like Terms Simplifying Like Terms with Powers Simplifying Addition in Algebra Simplifying Subtraction in Algebra Simplifying Addition and Subtraction Simplifying Multiplication in Algebra Simplifying Division in Algebra Simplifying Multiplication and Division Summary: Simplifying Expressions Summary: Simplifying Algebraic Expressions Practice Questions: Simplifying Addition and Subtraction Practice Questions: Simplifying Algebraic Expressions Practice Questions: Simplifying Multiplication and Division Introduction to Expanding Expanding Single Brackets Expanding More Terms and Complicated Expressions Expanding Powers and Binomial Brackets Expanding using the Area Model Expanding Powers and Binomials (Area Model) Practice Questions: Expanding and the Distributive Law Practice Questions: Expanding Single Brackets Practice Questions: Expanding Introduction to Factorising Identifying Algebraic Factors Factorising Algebraic Expressions Connecting Expanding and Factorising	Greatest Common Divisor (Highest Common Factor) Factorising Algebraic Expressions with Powers Identifying Complicated Algebraic Factors Summary: Factorising Algebraic Expressions Extension: Factorisation Patterns (Difference of 2 Squares and Perfect Squares) Extension: Factorising with Index Laws Extension: Factorising with Indices and Binomial Factors Practice Questions: Introduction to Factorising Practice Questions: Connecting Expanding and Factorising Practice Questions: Greatest Common Divisor (Highest Common Factor) Practice Questions: Factorising Algebraic Expressions Practice Questions: Factorising Algebraic Expressions with Powers Practice Questions: Identifying Algebraic Factors Practice Questions: Identifying Complicated Algebraic Factors Practice Questions: Extension Factorising **Find Products of Binomials** Expanding Binomial Products (Area Model) Expanding Perfect Squares Expanding Differences of Two Squares Practice Questions: Expanding Binomial Products Practice Questions: Expanding Differences of Two Squares Practice Questions: Expanding Perfect Squares

A.5 understand and use standard mathematical formulae; rearrange formulae to change the subject	Using Formulas Finding Formulas Rearranging Equations	Practice Questions: Formulas Practice Questions: Rearranging Linear Equations
A.6 model situations or procedures by translating them into algebraic expressions or formulae and by using graphs	Writing and Evaluating Algebraic Expressions Translating Between Authentic Situations and Algebraic Expressions Understanding Algebraic Expressions Activity: Opening a New Aquarium Practice Questions: Introduction to Algebra Practice Questions: Relating Words to Algebra Practice Questions: Translating Between Situations and Algebraic Expressions Practice Questions: Writing and Evaluating Algebraic Expressions Using Formulas Finding Formulas Activity: Using Spreadsheets to Describe Relationships and Experiment with Tables of Values Summary: Evaluating Expressions and Using Formulas Tables of Values Introduction to Balancing Equations Balancing Equations Introduction to Solving One-Step Linear Equations Flow Charts and Building Expressions Flow Charts for Solving Equations Creating and Solving Simple Linear Equations	Solving Linear Equations Undoing Operations Undoing Brackets Undoing Using BEDMAS Variables in Fractions Variables on Both Sides Creating and Solving Linear Equations with Multiple Steps Solutions as Decimals and Fractions Solving Using Algebraic Methods Solving Using Graphical Methods Applications of Linear Equations Checking Solutions Activity: Physically Balancing Equations Activity: Physically Balancing Equations Student Worksheet Activity: Physically Balancing Equations Teacher Guide Practice Questions: Balancing Equations Practice Questions: Concrete Models and Flow Charts Practice Questions: Visual Methods for Solving Linear Equations Practice Questions: Linear Equations Practice Questions: Solving Linear Equations with Visual Methods Definitions List: Linear and Non-Linear Relationships Definitions MCQ: Linear and Non-Linear Relationships Solving Linear Equations Spelling List: Linear and Non-Linear Relationships

A.7 use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement)	Introduction to Balancing Equations Balancing Equations Introduction to Solving One-Step Linear Equations Flow Charts and Building Expressions Flow Charts for Solving Equations Creating and Solving Simple Linear Equations Solving Linear Equations Undoing Operations Undoing Brackets Undoing Using BEDMAS Variables in Fractions Variables on Both Sides Creating and Solving Linear Equations with Multiple Steps Solutions as Decimals and Fractions Solving Using Algebraic Methods Solving Using Graphical Methods Applications of Linear Equations Checking Solutions Activity: Physically Balancing Equations Activity: Physically Balancing Equations Student Worksheet Activity: Physically Balancing Equations Teacher Guide	Practice Questions: Balancing Equations Practice Questions: Concrete Models and Flow Charts Practice Questions: Visual Methods for Solving Linear Equations Practice Questions: Linear Equations Practice Questions: Solving Linear Equations with Visual Methods Practice Questions: Solving One-Step Linear Equations Practice Questions: Solving Linear Equations with Brackets Practice Questions: Solving Two-Step Linear Equations Practice Questions: Solving Linear Equations with Algebraic Methods Practice Questions: Mixed Solving Linear Equations Definitions List: Linear and Non-Linear Relationships Definitions MCQ: Linear and Non-Linear Relationships Solving Linear Equations Spelling List: Linear and Non-Linear Relationships
A.8 work with coordinates in all four quadrants	Cartesian Planes Number Lines, Axes and Coordinates Quadrants of Cartesian Planes Plotting and Reading Graphs Practice Questions: Cartesian Planes Practice Questions: Coordinates	Practice Questions: Plotting Points Practice Questions: Plotting on a Cartesian Plane Practice Questions: Mixed Cartesian Planes Practice Questions: Applications of Cartesian Planes
A.9 recognise, sketch and produce graphs of linear and quadratic functions of one variable with appropriate scaling, using equations in x and y and the Cartesian plane	Linear Patterns and Graphs Plotting Linear and Non-Linear Relationships	Plotting Linear Graphs using Intercepts Drawing Graphs and Equation of a Line Practice: Drawing Graphs

A.10 interpret mathematical relationships both algebraically and graphically	Plotting Linear and Non-Linear Relationships Algebra Function Machines Drawing Graphs and Equation of a Line Determining Linear Rules	Definitions MCQ: Linear and Non-Linear Relationships Spelling List: Linear and Non-Linear Relationships Spelling List: Linear and Non-Linear Relationships
A.11 reduce a given linear equation in two variables to the standard form y = mx + c; calculate and interpret gradients and intercepts of graphs of such linear equations numerically, graphically and algebraically	Features of Graphs: Intercepts Drawing Graphs and Equation of a Line Gradient of a Line Drawing Linear Graphs Using the Gradient Determining Linear Rules Equation of a Line Horizontal and Vertical Lines Plotting Linear Equations in Context	Repeating, Growing, and Shrinking Patterns Practice: Features of Linear Graphs Practice: Linear Equations and the y-intercept Practice: Linear Equations and the Gradient Practice Questions: Linear Graphs (Mixed)
A.12 use linear and quadratic graphs to estimate values of y for given values of x and vice versa and to find approximate solutions of simultaneous linear equations	Solving Using Graphical Methods Multiple Lines on Cartesian Planes	Practice: Reading Graphs Practice: Reading Graphs Activity: Graphing Using Technology - Casio Calculators
A.13 find approximate solutions to contextual problems from given graphs of a variety of functions, including piece-wise linear, exponential and reciprocal graphs	Interpreting Graphs Analysing Linear Graphs Plotting and Reading Travel Graphs Analysing Travel Graphs Water Evaporation Graphs Analysing Graphs: Travel and Evaporation	Activity: Graphing Using Technology - Casio Calculators Activity: Investigating Linear Graphs with Technology Activity: Solving Linear Equations with Technology Activity: Investigating Linear Inequalities with Technology
A.14 generate terms of a sequence from either a term-to-term or a position-to-term rule A.15 recognise arithmetic sequences and find the nth term A.16 recognise geometric sequences and appreciate other sequences that arise.	Patterns with Objects Describing Repeating Patterns Extending Repeating Patterns Introduction to Number Patterns Using Tables to Describe Patterns Describing Number Patterns Using Rules Linear Patterns and Rules (nth term) Extending Linear Patterns Creating and Translating Patterns into Expressions Describing Linear and Non-linear Patterns Using Algebra	Activity: Finding Patterns and Making Fractals Finding Patterns and Making Fractals Student Worksheet Finding Patterns and Making Fractals Teacher Guide Extension: Fractal Trees and Recursion Extension: Patterns Found in Nature Practice Questions: Identifying Relationships Practice Practice Questions: Continuing Patterns Practice Practice Questions: Rules for Patterns Practice

Ratio, proportion and rates of change

Specific Expectations	Lessons	Lessons
RPR.1 change freely between related standard units [for example time, length, area, volume/capacity, mass]	Units of Measurement The Metric System Unit Prefixes Units of Mass Interpreting Units of Mass Converting Units of Mass Applications of Converting Units of Mass Units of Length Interpreting Units of Length Method for Converting Units of Length Converting Units of Length Comparing Units of Length Units of Area Converting Between Units of Area Converting Between Units of Area Applications	Volume Choosing Appropriate Units of Volume Converting Units of Volume Capacity and Volume Units of Capacity Interpreting Units of Capacity Converting Units of Capacity Converting Further Units of Capacity and Applications Applications of Converting Units of Capacity Duration Recording Time Splitting Up Time 12-Hour Time 24-Hour Time Converting 12- and 24-Hour Time Introduction to Analog Clocks Reading Analog Clocks
RPR.2 use scale factors, scale diagrams and maps	**Proportion** Application: Ratio and Proportion Word Problems Scale Factors **Transforming shapes** Introduction to Scaling and Enlargement Scaling on Cartesian Planes Scale Factors Applying Scale Factors to Objects Extension: Introduction to Scale Drawings	Extension: Scale Models Extension: Construction Plans Extension: Plan and Elevation Views Extension: Creating and Interpreting Scale Drawings Practice Questions: Introduction to Scaling Practice Questions: Scaling on Cartesian Planes Practice Questions: Mixed Transformations

RPR.3 express one quantity as a fraction of another, where the fraction is less than 1 and greater than 1	Fraction of a Quantity Using Fractions in Context Using Fractions - Food Using Fractions - Money Practice Questions: Fraction of a Quantity Practice Questions: Fractions and Food Practice Questions: Fractions and Shopping Percentage of a Whole Percentage of a Whole: Eighths and Thirds Percentage of a Whole: Common Fractions Converting Between Percentages and Fractions Converting Between Percentages and Fractions: Simplifying Fractions Converting Percentages and Decimals Converting Between Percentages, Decimals and Fractions Percentages, Decimals and Fractions Mixed Applications: Fractions, Decimals and Percentages - Town Planning	Activity: Real Number Dominoes Activity: Real Number Dominoes Student Worksheet Activity: Real Number Dominoes Teacher Guide Practice Questions: Converting Between Percentages and Fractions Practice Questions: Converting Between Fractions and Decimals Practice Questions: Percentages and Decimals Practice Questions: Converting Between Decimals and Percentages Practice Questions: Percentages, Decimals and Fractions Practice Practice Questions: Mixed Converting Between Fractions, Decimals and Percentages Percentage of an Amount Percentages of Amounts: Using a Calculator Percentages of a Number
RPR.4 use ratio notation, including reduction to simplest form	Ratios Introduction Ratios Practice Questions: Ratios Practice Questions: Mixed Percentages and Ratios	Application: Ratio and Proportion Word Problems Applying Ratios and Rates
RPR.5 divide a given quantity into two parts in a given part:part or part:whole ratio; express the division of a quantity into two parts as a ratio		
RPR.6 understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction		
RPR.7 relate the language of ratios and the associated calculations to the arithmetic of fractions and to linear functions		
RPR.8 solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics	Discounts Calculating Discounts Increase and Decrease by a Percentage Percentages and Populations Introduction to Interest Calculating Simple Interest Rearranging the Simple Interest Formula Interest Rates and Fees	Best Option Finance Charges Boxing Day Bonanza Customer Loyalty and Incentive Programs Practice Questions: Percentages of a Number Practice Questions: Calculating Discounts Practice Questions: Discounts

RPR.9 solve problems involving direct and inverse proportion, including graphical and algebraic representations	Introduction to Graphs Direct Proportion Introduction to Inverse Proportion Applying Inverse Proportion Analysing Graphs Practice Questions: Introduction to Graphs Practice Questions: Direct Proportion	Practice Questions: Introduction to Inverse Proportion Practice Questions: Applying Inverse Proportion Introduction to Rates Constant Rates Applying Ratios and Rates Rates of Change
RPR.10 use compound units such as speed, unit pricing and density to solve problems.	Cost per Item Best Buys Using Unit Costs When a Best Buy isn't the Best Option Activity: Planning a Party Activity: Planning a Party Student Worksheet Activity: Planning a Party Teacher Guide	Application: Choosing a Usage Plan Application: Ratio and Proportion Word Problems Practice Questions: Unit Pricing Practice Questions: Cost per Item Practice Questions: Calculating a Best Buy Exchange Rates Density

Geometry and measures

Specific Expectations	Lessons	Lessons
GM.1 derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)	**Calculating perimeter** Introduction to Perimeter Finding Perimeters Perimeter Calculations Perimeters of Kites, Rhombuses, Trapeziums and Parallelograms Perimeters of Composite Shapes Circumference of Circles Using the Circumference of Circles Perimeter and Circumference of Composite Shapes Summary: Perimeter Practice Questions: Finding Perimeter Practice Questions: Circumference of Circles Practice Questions: Using the Circumference of Circles Definitions List: Units of Measurement **Calculating area** Introduction to Area Area of Rectangles Area of Rectangles and Squares Area of Triangles Area of Parallelograms Area of Rhombuses and Kites Area of Trapeziums Calculating the Area of Circles Using the Area of Circles Area of Composite Shapes Area of Composite Shapes (Including Circles) Converting Between Units of Area Converting Between Units of Area Applications Practice Questions: Area of Rectangles & Squares Practice Questions: Area of Parallelograms	Practice Questions: Area of Triangles Practice Questions: Area of Composite Shapes Practice Questions: Mixed Area Practice Questions: Calculating the Area of Circles Practice Questions: Using the Area of Circles **Calculating volume** Introduction to Solids Prisms Types of Prisms 3D Shape Rectangular Prisms Calculating Volume of Rectangular Prisms Calculating Volume of Triangular Prisms Calculating Volume of Cylinders Calculating Volume of Other Regular and Irregular Prisms Volume of Composite Shapes Volume of Composite Solids Choosing Appropriate Units of Volume Activity: Playdough Prisms Activity: Playdough Prisms Student Worksheet Activity: Playdough Prisms Teacher Guide Activity: Playdough Recipe Practice Questions: Shapes and Solids Practice Questions: Volume of Prisms and Cylinders Practice Questions: 3D Solids Practice Questions: Types of Prisms *Continues on next page*
GM.2 calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes		

GM.1 *(continued)* derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders) GM.2 *(continued)* calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes	Practice Questions: Drawing Prisms and Pyramids Practice Questions: Volume of Rectangular Prisms Practice Questions: Volume of Other Regular and Irregular Prisms Practice Questions: Triangular Prisms Practice Questions: Volume of Cylinders Practice Questions: Cylinder Exercises Practice: Volume of Composite Shapes Practice Questions: Mixed Volume Practice: Units of Volume Definitions List: Shape Definitions MCQ: Shape	Extension: Pyramids Extension: Volume of Right Cones Extension: Volume of Right Pyramids **Calculating Surface Area** Surface Area of Prisms Surface Area of Cylinders Surface Area of Composite Solids Extension: Surface Area of Right Pyramids Practice Questions: Surface Area Practice Questions: Surface Area of Cylinders Practice Questions: Mixed Surface Area
GM.3 draw and measure line segments and angles in geometric figures, including interpreting scale drawings	Common Angles Types of Angles 2D Shape Estimating the Size of Angles Measuring Acute and Obtuse Angles Measuring Reflex Angles Activity: Angles Scavenger Hunt Activity: Angles Scavenger Hunt Student Worksheet Activity: Angles Scavenger Hunt Teacher Guide	Practice Questions: Types of Angles Practice Questions: Estimating the Size of Angles Practice Questions: Measuring Angles Practice Questions: Measuring Acute and Obtuse Angles Practice Questions: Measuring Reflex Angles
GM.4 derive and use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point, bisecting a given angle); recognise and use the perpendicular distance from a point to a line as the shortest distance to the line	*Resources under development*	
GM.5 describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric	**Angles, Lines and Shapes** Common Angles Types of Angles 2D Shape Estimating the Size of Angles Measuring Acute and Obtuse Angles Measuring Reflex Angles Angles Scavenger Hunt Angles Scavenger Hunt Student Worksheet Scavenger Hunt Teacher Guide	Practice Questions: Types of Angles Practice Questions: Estimating the Size of Angles Practice Questions: Measuring Angles Practice Questions: Measuring Acute and Obtuse Angles Practice Questions: Measuring Reflex Angles *Continues on next page*

GM.5 *(continued)* describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric	Angles Around a Point Angles on Straight Lines Angles in Corners Parallel Lines Angles around Parallel Lines Vertically Opposite Angles Practice Questions: Angles Around Parallel Lines Angles in a Triangle Angles and Triangles Angles in Quadrilaterals	Applying Rules to Quadrilaterals Polygons and Exterior Angles Polygons and Interior Angles Practice Questions: Angles in a Triangle Types of Triangles Classification of Shapes Classifying Quadrilaterals Regular Polygons Constructing Circles Parts of a Circle
GM.6 use the standard conventions for labelling the sides and angles of triangle ABC, and know and use the criteria for congruence of triangles	Types of Triangles Practice Questions: Types of Triangles Similarity and Multiple Triangles Angles and Congruence Conditions for Congruence: ASA, AAS and HL Conditions for Congruence: SSS and SAS Working with Congruent Triangles Translation and Congruence of Plane Shapes	Practice Questions: Similarity and Multiple Triangles Practice Questions: ASA, AAS and HL Congruence Tests Practice Questions: SSS and SAS Congruence Tests Practice Questions: Working with Congruent Triangles Practice Questions: Translation and Congruence of Plane Shapes
GM.7 derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures [for example, equal lengths and angles] using appropriate language and technologies	Types of Triangles Classification of Shapes Classifying Quadrilaterals Regular Polygons Constructing Circles Parts of a Circle Activity: Triangles in the Real World Activity: Triangles in the Real World Student Worksheet Activity: Triangles in the Real World Teacher Guide Practice Questions: Types of Triangles	Practice Questions: Parts of a Circle Angle Relationships Definitions List: Geometric Reasoning Definitions MCQ: Geometric Reasoning Definitions MCQ: Geometric Reasoning Definitions MCQ: Shape Spelling List: Geometric Reasoning Spelling List: Shape
GM.8 identify properties of, and describe the results of, translations, rotations and reflections applied to given figures	Translation on Cartesian Planes Translation on a Grid Practice Questions: Translation Practice Questions: Translation on a Grid Rotation on Cartesian Planes Rotation on a Grid Practice Questions: Rotation Practice Questions: Rotation on a Grid	Reflection on Cartesian Planes Reflection on a Grid Practice Questions: Reflection Practice Questions: Reflection on a Grid Scaling and Enlargement Scaling on Cartesian Planes Scale Factors Applying Scale Factors to Objects *Continues on next page*

GM.8 *(continued)* identify properties of, and describe the results of, translations, rotations and reflections applied to given figures	Extension: Introduction to Scale Drawings Extension: Scale Models Extension: Construction Plans Extension: Plan and Elevation Views Extension: Creating and Interpreting Scale Drawings Practice Questions: Introduction to Scaling Practice Questions: Scaling on Cartesian Planes	Practice Questions: Mixed Transformations Definitions List: Location and Transformation Definitions MCQ: Location and Transformation Spelling List: Location and Transformation Spelling List: Transformations Transformation
GM.9 identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids	Angles and Congruence Conditions for Congruence: ASA, AAS and HL Conditions for Congruence: SSS and SAS Working with Congruent Triangles Translation and Congruence of Plane Shapes	Practice Questions: ASA, AAS and HL Congruence Tests Practice Questions: SSS and SAS Congruence Tests Practice Questions: Working with Congruent Triangles Practice Questions: Translation and Congruence of Plane Shapes
GM.10 apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles	Angles Around a Point Angles on Straight Lines Angles in Corners	Vertically Opposite Angles Angle Relationships
GM.11 understand and use the relationship between parallel lines and alternate and corresponding angles	Parallel Lines Angles around Parallel Lines Vertically Opposite Angles	Practice Questions: Angles Around Parallel Lines
GM.12 derive and use the sum of angles in a triangle and use it to deduce the angle sum in any polygon, and to derive properties of regular polygons	Angles in a Triangle Angles and Triangles Angles in Quadrilaterals Applying Rules to Quadrilaterals	Polygons and Exterior Angles Polygons and Interior Angles Practice Questions: Angles in a Triangle
GM.13 apply angle facts, triangle congruence, similarity and properties of quadrilaterals to derive results about angles and sides, including Pythagoras' Theorem, and use known results to obtain simple proofs	Introduction to Similarity Introduction to Congruence Similarity Tests Similarity and Angles Similarity and Multiple Triangles Angles and Congruence Conditions for Congruence: ASA, AAS and HL Conditions for Congruence: SSS and SAS Working with Congruent Triangles Translation and Congruence of Plane Shapes Rotation and Reflection of Plane Shapes	Practice Questions: Introduction to Similarity Practice Questions: Similarity Tests Practice Questions: Similarity and Angles Practice Questions: Similarity and Multiple Triangles Practice Questions: ASA, AAS and HL Congruence Tests Practice Questions: SSS and SAS Congruence Tests Practice Questions: Working with Congruent Triangles *Continues on next page*

GM.13 *(continued)* apply angle facts, triangle congruence, similarity and properties of quadrilaterals to derive results about angles and sides, including Pythagoras' Theorem, and use known results to obtain simple proofs	Practice Questions: Translation and Congruence of Plane Shapes Practice Questions: Rotation and Reflection of Plane Shapes	Parts of a Triangle and the Hypotenuse Pythagoras' Theorem Pythagoras' Theorem in 3D
GM.14 use Pythagoras' Theorem and trigonometric ratios in similar triangles to solve problems involving right-angled triangles	Parts of a Triangle and the Hypotenuse Pythagoras' Theorem Pythagoras' Theorem in 3D Introduction to Trigonometry Finding Angles Using Trigonometry Finding Side Lengths Using Trigonometry Summary: Trigonometric Ratios Using Trigonometric Functions in Real World Applications	Activity: Building with Pythagoras Activity: Applications of Trigonometry in Coding Definitions List: Pythagoras and Trigonometry Definitions MCQ: Pythagoras and Trigonometry Pythagoras' Theorem Right-Angle Triangles Spelling List: Pythagoras and Trigonometry
GM.15 use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D		
GM.16 interpret mathematical relationships both algebraically and geometrically.		

Probability

Specific Expectations	Lessons	Lessons
P.1 record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness, equally and unequally likely outcomes, using appropriate language and the 0-1 probability scale	Introduction to Probability Practice Questions: The Probability of Outcomes Probability Terminology Introduction to Likelihood Comparing Probabilities Impossible & Certain Events Equal & Unequal Outcomes Summary: Likelihood Probability as a Decimal and a Percentage Probability as a Fraction The Probability of Outcomes What are Events? Complementary Events Calculating Complements Summary: Complementary Events Describing Probabilities Describing Probabilities Using Descriptions of Probability Chance Games Summary: Probability Summary: Theoretical Probability Practice Questions: Mixed Chance Practice Questions: Chance Games The Probability of Observations Application: Exploring Outcomes Activity: A Chance of Rain A Chance of Rain Student Worksheet A Chance of Rain Teacher Guide Practice Questions: Introduction to Probability Practice Questions: Likelihood of Events Practice Questions: The Likelihood Scale Practice Questions: Equal and Unequal Outcomes Practice Questions: Probability as a Fraction	Practice Questions: Finding Probabilities & Comparing Likelihoods Practice Questions: Writing Probabilities Chance Definitions List: Chance Definitions List: Likelihood Definitions MCQ: Likelihood Descriptions of Probability and Complementary Events Introduction to Probability Spelling List: Likelihood Differences in Results Observed vs. Expected Outcomes Probability Experiments Experimental Probability Calculating Experimental Probability Relative Frequencies Using Relative Frequencies Extension: Using Simulations to Compare Probabilities Activity: A Tree Snake Chance Game A Tree Snake Chance Game Student Worksheet Activity: A Tree Snake Chance Game Teacher Guide Practice Questions: Observed vs. Expected Outcomes Practice Questions: Experimental Probability Practice Questions: Probability Experiments Practice Questions: Relative Frequencies Practice Questions: Using Relative Frequencies Chance Definitions List: Chance Definitions MCQ: Chance Definitions MCQ: Chance Finding Probability Spelling List: Chance Spelling List: Chance
P.2 understand that the probabilities of all possible outcomes sum to 1		

P.3 enumerate sets and unions/intersections of sets systematically, using tables, grids and Venn diagrams	Introduction to Venn Diagrams Venn Diagrams Representing Data in Venn Diagrams Two-Way Tables Making Your Own Venn Diagrams Making Your Own Two-Way Tables Converting Between Venn Diagrams and Two-Way Tables Using Two Way Tables to make Venn Diagrams Using Venn Diagrams to make Two-Way Tables Using Venn Diagrams to Calculate Probabilities Using Two-Way Tables to Find Probabilities Advanced Venn Diagrams and Two-Way Tables Summary: Two-Way Tables Summary: Venn Diagrams Practice Questions: Venn Diagrams	Practice Questions: Two-Way Tables Practice Questions: Calculating Probabilities from Venn Diagrams Practice Questions: Calculating Probabilities from Two-Way Tables Practice Questions: Calculating Probabilities from Chance Diagrams Practice Questions: Filling in Chance Diagrams using Partial Information Activity: Pancakes and Chai Activity: Pancakes and Chai Student Worksheet Activity: Pancakes and Chai Teacher Guide Definitions MCQ: Chance Venn Diagrams and Two-Way Tables
P.4 generate theoretical sample spaces for single and combined events with equally likely, mutually exclusive outcomes and use these to calculate theoretical probabilities.	Introduction to Two-Step Experiments Tree Diagrams Using Tree Diagrams Extension: Arrays Extension: Using Arrays Introduction to Independence Independent and Dependent Events Investigating Independent Events using Chance Diagrams Introduction to Conditional Probability Investigating Conditional Probability with Venn Diagrams Investigating Conditional Probability with Two-Way Tables Calculating Conditional Probability Using Tree Diagrams	Extension: Calculating Conditional Probabilities using Arrays Multiplication & Addition Rules Word Problems Extension: Using Simulations to Determine Probabilities Practice Questions: Introduction to Two-Step Chance Practice Questions: Tree Diagrams Practice Questions: Using Tree Diagrams Practice Questions: Extension: Arrays Practice Questions: Extension: Using Arrays Definitions List: Chance Definitions List: Chance Definitions MCQ: Chance

Statistics

Specific Expectations	Lessons	Lessons
S.1 describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)	**Collect data** Introduction to Types of Data Primary and Secondary Data Data Sources & Data Types Practice Questions: Mixed Introduction to Data Practice Questions: Discrete or Continuous Data Practice Questions: Primary and Secondary Data Methods of Collecting Data Collecting Data Collecting Continuous Data Introduction to Random Sampling Bias in Data Samples and Populations Surveying Practice Questions: Mixed Introduction to Data Methods Practice Questions: Collecting Data Practice Questions: Random Sampling Practice Questions: Random Sampling and Bias Practice: Bias Practice Questions: Surveys Practice Questions: Surveys Extension: Cultural Bias Extension: Public Opinion Surveys Extension: Statistical Reports In The Media Collecting Data Collecting Data Definitions List: Collecting Data	**Analyse Data Using Measures of Centre and Spread** Mean Median Mode The Range Outliers Extension: Adding and Removing Data Practice: The Mean Practice Questions: The Median Practice Questions: The Mode Practice Questions: The Range Practice Questions: Mixed Mean, Median and Mode Practice Questions: Calculating Measures of Centre and Spread Practice Questions: Comparing Measures of Centre Practice Questions: Outliers Activity: Scrambled Statistics Analysing and Comparing Data Definitions List: Analysing Data Definitions MCQ: Collecting and Analysing Data Investigating and Analysing Data Mean, Median, Mode and Range Spelling List: Data Representation and Interpretation

S.2 construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data	Tally Marks Frequency Tables Tallies and Frequency Tables Two-Way Tables Practice Questions: Tally Marks Data Tables Practice Practice Questions: Two-Way Tables Practice Column (Bar) Graphs Reading Column (Bar) Graphs Side-by-Side Column Graphs Practice Questions: Column (Bar) Graphs Practice Questions: Reading Column Graphs Practice Questions: Side-by-Side Column Graphs Practice Introduction to Pie Charts Pie Charts and Divided Bar Graphs Practice Questions: Pie Charts Practice Questions: Pie Charts and Divided Bar Graphs Overview: Picture Graphs Picture Graphs Picture Graphs and Data Tables Picture Graphs with Keys	Practice Questions: Picture Graphs Practice Questions: Picture Graphs and Data Tables Practice Questions: Picture Graphs with Keys Reading from Data Displays Matching Tables to Graphs Activity: Lolly Graphs Lolly Graphs Student Worksheet Lolly Graphs Teacher Guide Activity: Creating an Infographic Data Displays Definitions List: Data Displays Definitions MCQ: Collecting and Displaying Data Definitions MCQ: Data Displays Displaying Data Spelling List: Data Displays
S.3 describe simple mathematical relationships between two variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs.	Scatter Graphs Reading Scatter Graphs Analysing Association by Eye in Scatter Plots Misleading Data and Graphs Misleading Data and Graphs Practice Activity: Plotting Using a Calculator	Activity: Introduction to Spreadsheets Activity: Plotting Using a Spreadsheet Activity: A Guide for Making Graphs in Excel (Mac Version) Activity: A Guide for Making Graphs in Excel (Windows Version)