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MathAmigoTM

**Correlation to
NCTM Math Standards**

Grades 5-8

MathAmigo

Powerful software for handheld computers
with desktop management system for
planning and assessment.

Links to NCTM Standards

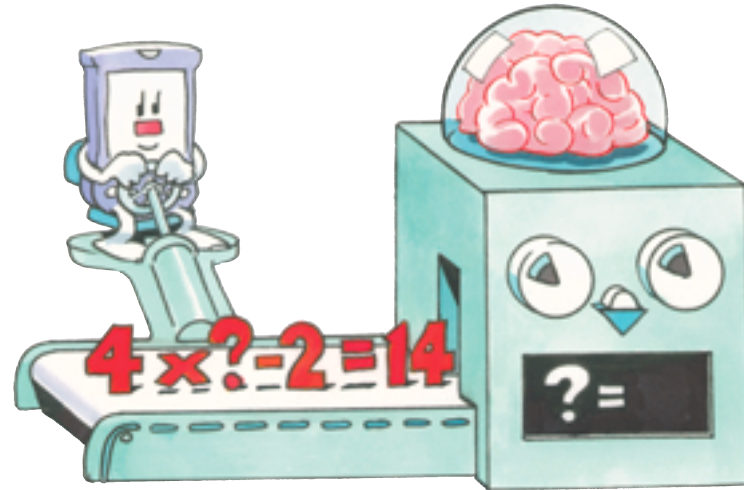
The NCTM Standards subdivide into
the following strands:

- Number & Number Relation
- Patterns & Functions
- Number System & Number Theory
- Computation & Estimation
- Algebra
- Statistics
- Probability
- Geometry
- Measurement

The booklet shows how MathAmigo
activities link to these strands.

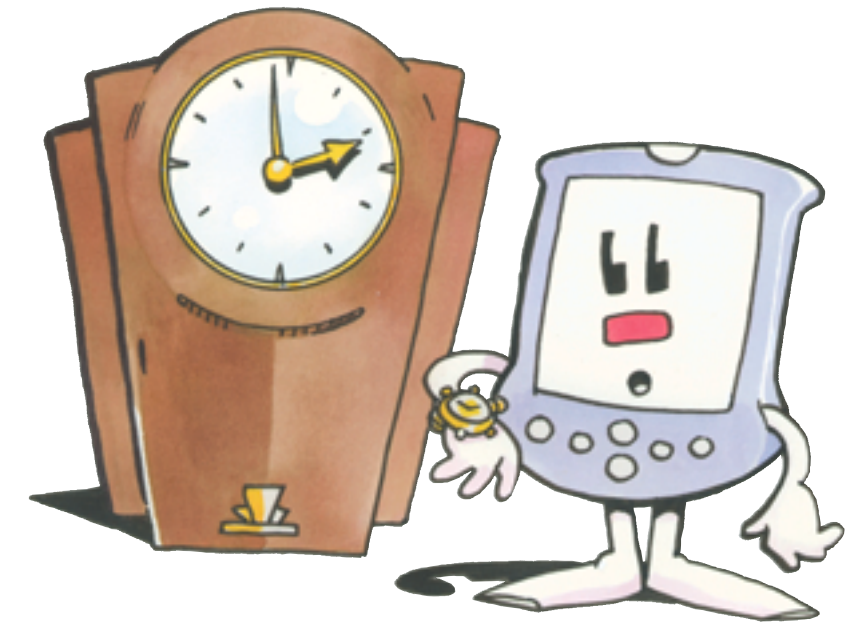


Number & Number Relation

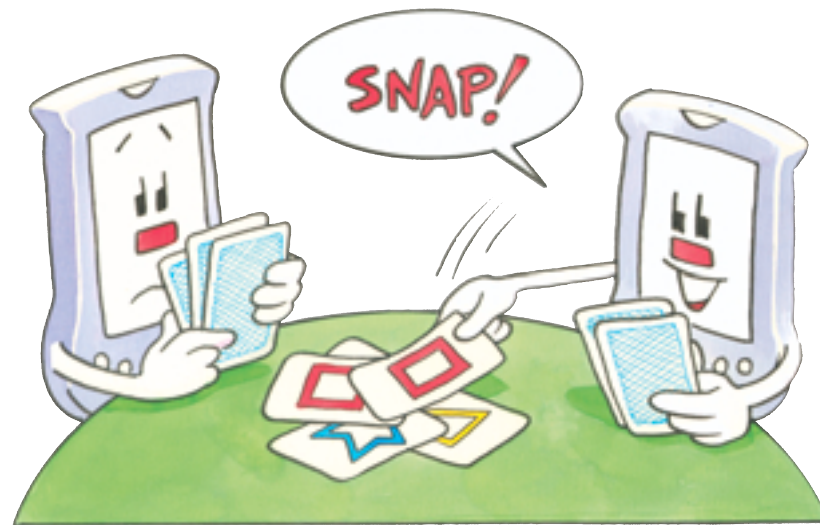


Pack	Topic	Activity
8 Fractions & Decimals 2	8.1 Decimal Fractions	8.1.1 Decimal Abacus (1dp)
		8.1.2 Decimal Abacus (2dp)
		8.1.3 Decimal Abacus (3dp)
		8.1.6 Decimal Steps
	8.2 Equivalent Fractions	8.2.1 Equivalent Fractions
		8.2.2 Complete 2 Fractions
		8.2.3 Complete 3 Fractions
		8.2.4 Simplifying Fractions
	8.4 Decimal Notation	8.4.1 Writing Decimals
		8.4.2 Reading Scales
11 Number Structure	11.1 Counting and Place Value	11.1.1 Number Names [0,1M]
		11.1.2 How Many (Big Numbers)?
		11.1.3 Space Invaders 3
		11.1.4 Multiply Powers 1-100Th
	11.2 Ordering	11.2.1 Naming Numbers [0,1M]
		11.2.2 Order 4 Big Numbers
		11.2.3 Order 5 Big Numbers
		11.2.4 Between: Big Whole Numbers
		11.2.5 Between: Neg and Pos
		11.2.6 Between: Decimals
	11.3 Odds and Evens	11.3.1 Combining Odds and Evens
		11.6.1 Is It Prime?
	11.6 Prime Numbers	11.6.2 Prime Factors
		11.6.3 Prime Factorization
		12.5.1 Order of Operations
12 Number Operations	12.5 Combined Operations	12.5.2 Making Numbers (+,-)
		12.5.3 Making Numbers (+,-,x,÷)
		12.5.4 Backtrack
		12.6.1 Squares
	12.6 Powers and Roots	12.6.2 Square Roots
		12.6.3 Cubes
		12.6.4 Cube Roots
		16.2.2 Percentages Of Money
16 Using Number 3	16.2 Money	16.6.1 Logic Problems
	16.6 Miscellaneous Problems	16.6.2 Combinatorics
		16.6.3 Number Problems
		18.1.1 Exponent Intro
18 Number	18.1 Exponents	18.1.2 Using Exponents
		18.1.3 Scientific Notation
		18.1.4 Using Scientific Notation
		18.3.1 Ratio and Proportion
	18.3 Fractions and Percents	18.4.1 Minimax
	18.4 Comparing Numbers	

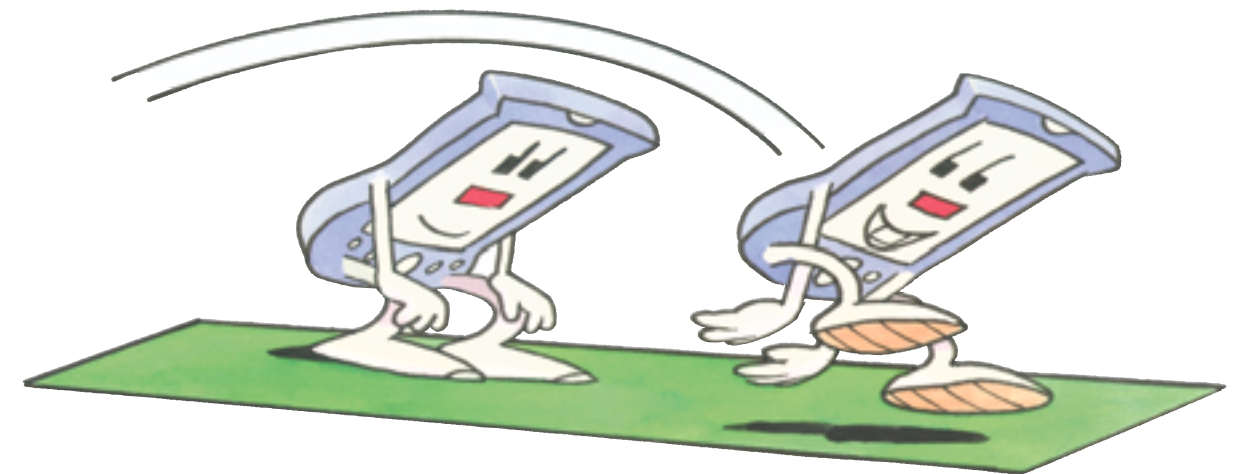
Measurement



Pack	Topic	Activity
9 Shape & Space	9.6 Perimeter and Area	9.6.1 Perimeters
		9.6.2 Areas
		9.6.3 Perimeters and Areas
16 Using Number 3	16.3 Time	16.3.1 Using Timetables
		16.3.2 Time Units
		16.3.3 World Times
		16.3.4 24 Hour Clock
	16.4 Measures	16.4.1 Length Units (Decimal)
		16.4.2 Mass Units (Decimal)
21 Geometry	21.1 Coordinate Transforms	16.4.3 Capacity Units (Decimal)
		21.5.7 Volume (Cone)
		21.3.3 Area of Polygons
	21.3 Polygons	21.3.4 Perimeter of Polygons
		21.4.1 Linear Conversions
		21.4.2 Area Conversions
	21.4 Conversion	21.4.3 Volume Conversions
		21.5.2 Surface Area (Prism)
		21.5.3 Surface Area (Cylinder)
	21.5 Solids	21.5.4 Volume (Cylinder)
		21.5.5 Volume (Prism)
		21.5.6 Volume (Pyramid)
		21.5.7 Volume (Cone)
	21.6 Circles	21.6.1 Area of Circles
		21.6.2 Circumference

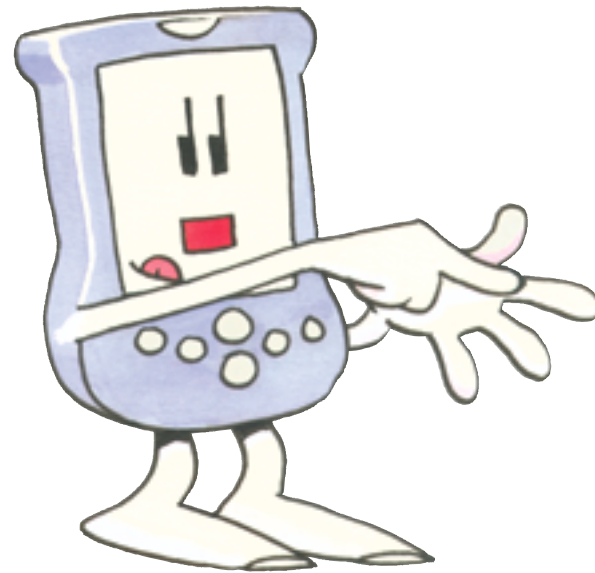


Pack	Topic	Activity
9 Shape & Space	9.1 Angles	9.1.1 Estimate Angles
		9.1.2 Making Angles
		9.1.3 Angles On a Line
		9.1.4 Angles at a Point
		9.1.5 Angles and Parallels
		9.1.6 Angles in Triangles
	9.2 Translations	9.2.1 Translations
		9.2.2 Using Translations
		9.2.3 Combining Translations
	9.3 Transformations	9.3.1 Rotating Shapes
		9.3.2 Reflecting Shapes
		9.3.3 Mirror Lines
		9.3.4 Axes of Symmetry
		9.3.5 Which Transformation?
	9.4 Shapes	9.4.1 How Many Triangles?
		9.4.2 How Many Squares?
		9.4.3 How Many Rectangles?
	9.5 3D Shapes	9.5.2 Cube Nets
13 Number Relationships	13.6 Coordinates	13.6.2 Position with Coordinates
		13.6.3 Four Quadrant Coordinates
		13.6.4 Using Coordinates
		13.6.5 Gomoku
21 Geometry	21.1 Coordinate Transforms	21.1.1 Reflect a Point
		21.1.2 Reflect a Triangle
		21.1.3 Reflect a Quadrilateral
		21.1.4 Rotate a Point
		21.1.5 Rotate a Triangle
		21.1.6 Rotate a Quadrilateral
	21.2 Triangles	21.2.1 Pythagoras
		21.2.2 Coordinate Distance
		21.2.3 Classifying Triangles
		21.2.4 Sine and Cosine
	21.3 Polygons	21.3.1 Drawing Squares
		21.3.2 Angles in Polygons
	21.5 Solids	21.5.1 Orthogonal Projection



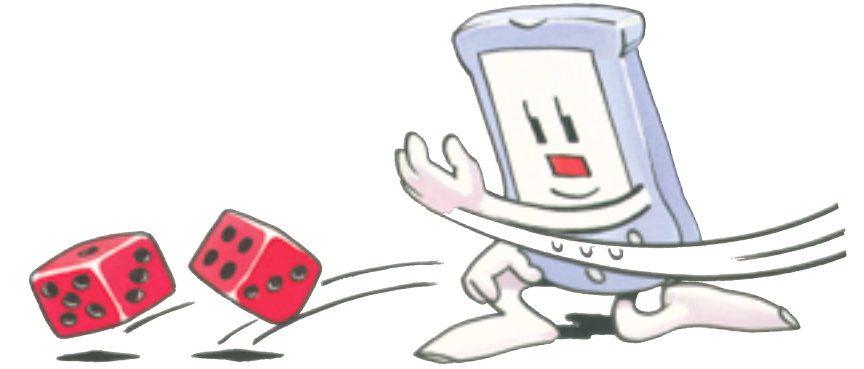
Pack	Topic	Activity
9 Shape & Space	9.4 Shapes	9.4.1 How Many Triangles?
		9.4.2 How Many Squares?
		9.4.3 How Many Rectangles?
11 Number Structure	11.5 Divisors and Factors	11.5.6 Decanting
12 Number Operations	12.3 Multiplication and Division	12.3.5 Extended Multiplication Tables
13 Number Relationships	13.1 Function Games	13.1.1 Frogs
		13.1.2 Counter Shuffle I
		13.1.3 Hanoi Tower
		13.1.4 Leap Frog
	13.2 Number Machines	13.2.1 Number Machines (+,-,x)
		13.2.2 Number Machines (x and +,-)
16 Using Number 3	16.3 Time	16.3.1 Using Timetables
20 Algebra	20.1 Graphs	20.1.1 Linear Graphs
		20.1.2 Linear Formulae
		20.1.3 Linear Sequences
		20.1.4 Non-Linear Sequences
		20.1.5 Non-Linear Functions
		20.1.6 Temperature Conversion

Number System & Number Theory



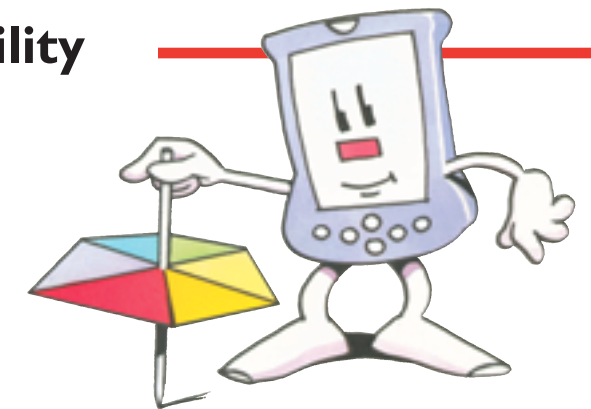
Pack	Topic	Activity
8 Fractions & Decimals 2	8.1 Decimal Fractions	8.1.1 Decimal Abacus (1dp)
		8.1.2 Decimal Abacus (2dp)
		8.1.3 Decimal Abacus (3dp)
		8.1.6 Decimal Steps
	8.2 Equivalent Fractions	8.2.1 Equivalent Fractions
		8.2.2 Complete 2 Fractions
		8.2.3 Complete 3 Fractions
		8.2.4 Simplifying Fractions
	8.4 Decimal Notation	8.4.1 Writing Decimals
		8.4.2 Reading Scales
	8.6 Ordering Decimals	8.6.1 Order Decimals (1dp)
		8.6.2 Order Decimals (2dp)
		8.6.3 Order Decimals (3dp)
		8.6.4 Order Decimals (Mixed dp)
	8.7 Percentages	8.7.1 Simple Percentages
		8.7.2 Finding Percentages
		8.7.3 Flash Card Percentages
10 Patterns & Relationships	10.4 Representing Numbers	10.4.1 Dot Patterns
		10.4.2 Number Systems
11 Number Structure	11.1 Counting and Place Value	11.1.1 Number Names [0,1M]
		11.1.2 How Many (Big Numbers)?
		11.1.3 Space Invaders 3
		11.1.4 Multiply Powers 1-100Th
	11.2 Ordering	11.2.1 Naming Numbers [0,1M]
		11.2.2 Order 4 Big Numbers
		11.2.3 Order 5 Big Numbers
		11.2.4 Between: Big Whole Numbers
		11.2.5 Between: Neg and Pos
		11.2.6 Between: Decimals

Statistics

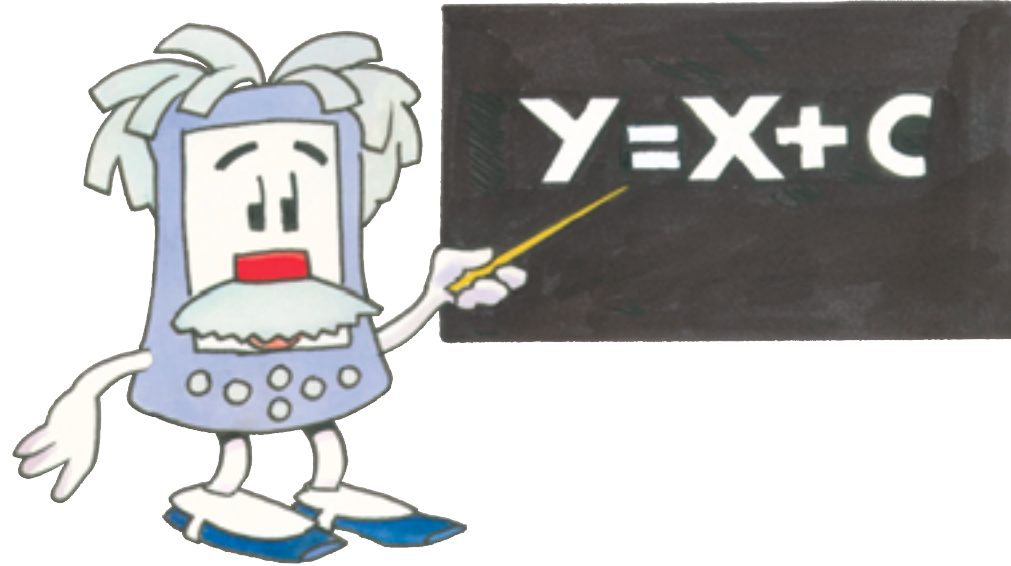


Pack	Topic	Activity
17 Data Handling	17.3 Collecting Data	17.3.1 Continuous Data
		17.3.2 Tallying
	17.4 Representing Data	17.4.1 Frequency Table
		17.4.2 Bar Graph
		17.4.3 Pie Chart
		17.4.4 Line Graph
		17.4.5 Histogram
	17.5 Analyzing Data	17.5.1 Maximum, Minimum, Range
		17.5.2 Mode
		17.5.3 Median
		17.5.4 Mean
		17.5.5 General Analysis
	17.6 Classifying Data	17.6.1 Venn Diagrams
		17.6.2 Carroll Diagrams
		17.6.3 Decision Trees

Probability



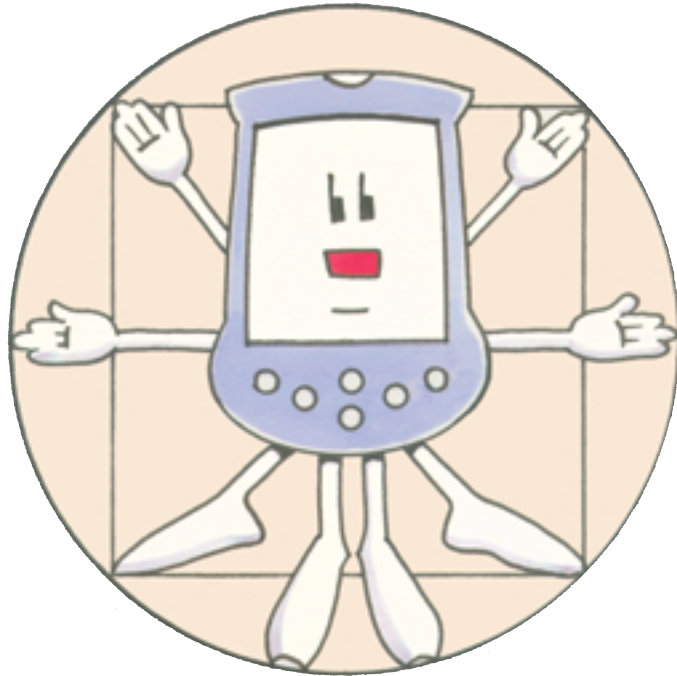
Pack	Topic	Activity
17 Data Handling	17.1 Probability	17.1.1 Tossing Coins
		17.1.2 Throwing Dice
		17.1.3 Throwing Odd Dice
		17.1.4 Spinner
		17.1.5 Quincunx
		17.1.6 Sampling
		17.1.7 Travelling Paths
	17.2 Probability Games	17.2.1 Dice Game
		17.2.2 Spinner Game
		17.2.3 Card Game



Pack	Topic	Activity
13 Number Relationships	13.3 Equations	13.3.1 Equations ($y = x + c$)
		13.3.2 Equations ($y = mx + c$)
		13.3.3 Equations ($x + c = 2x + d$)
	13.4 Inequalities	13.4.1 Inequalities ($x + c > y$)
		13.4.2 Inequalities ($x - c > y$)
		13.4.3 Inequalities ($x - c < y$)
		13.4.4 Inequalities ($x + c < y$)
	13.5 More Inequalities	13.5.1 Inequalities ($x + c < 2x + d$)
		13.5.2 Inequalities ($x + c > 2x + d$)
		13.5.3 Which is True?
20 Algebra	20.2 Expressions	20.2.1 2 Variable Expression
		20.2.2 Compare Expressions
		20.2.3 Evaluate for x
		20.2.4 Find x
		20.2.5 Equivalent Expressions
		20.2.6 Simplifying Expressions
		20.2.7 Simultaneous Equations
	20.3 Equations I Variable	20.3.1 Find x ($y = x + c$)
		20.3.2 Find x ($y = mx + c$)
		20.3.3 Find x ($x + c = 2x + d$)
	20.4 Inequalities I Variable	20.4.1 Solve x ($x + c > y$)
		20.4.2 Solve x ($x - c > y$)
		20.4.3 Solve x ($x - c < y$)
		20.4.4 Solve x ($x + c < y$)
		20.4.5 Solve x ($x + c < 2x + d$)
		20.4.6 Solve x ($x + c > 2x + d$)

Pack	Topic	Activity
11 Number Structure (Continued)	11.3 Odds and Evens	11.3.1 Combining Odds and Evens
		11.4.1 Divisibility (2,5,10)
	11.4 Divisibility	11.4.2 Divisibility (2,4,8)
		11.4.3 Divisibility (3,6,9)
		11.4.4 General Divisibility
	11.5 Divisors and Factors	11.5.1 Does It Divide?
		11.5.2 Finding Divisors
		11.5.3 Factors
		11.5.4 HCF (GCD)
		11.5.5 LCM
		11.5.6 Decanting
	11.6 Prime Numbers	11.6.1 Is It Prime?
		11.6.2 Prime Factors
		11.6.3 Prime Factorization
12 Number Operations	12.1 Addition and Subtraction	12.1.1 Addition [0,1M]
		12.1.2 Subtraction [0,1M]
		12.1.3 Add and Subtract Decimals
		12.1.4 Add Negative Numbers
		12.1.5 Subtract Negative Numbers
		12.1.6 Approximate Calculations (+,-)
	12.2 Problems: Add and Subtract	12.2.3 Missing Digits (+,-)
		12.2.4 Addition Square (4x4)
	12.3 Multiplication and Division	12.3.1 Multiply [1,1M]
		12.3.2 Divide [1,1M]
		12.3.3 Multiply and Divide Decimals
		12.3.4 Approximate Calculations (x,/)
		12.3.5 Extended Multiplication Tables
	12.4 Problems: Multiply and Divide	12.4.1 Multiplication Pairs
		12.4.2 Missing Digits (x,+)
		12.4.3 Multiplication Square (4x4)
	12.6 Powers and Roots	12.6.1 Squares
		12.6.2 Square Roots
		12.6.3 Cubes
		12.6.4 Cube Roots
13 Number Relationships	13.3 Equations	13.3.1 Equations ($y = x + c$)
		13.3.2 Equations ($y = mx + c$)
		13.3.3 Equations ($x + c = 2x + d$)
	13.4 Inequalities	13.4.1 Inequalities ($x + c > y$)
		13.4.2 Inequalities ($x - c > y$)
		13.4.3 Inequalities ($x - c < y$)
		13.4.4 Inequalities ($x + c < y$)
	13.5 More Inequalities	13.5.1 Inequalities ($x + c < 2x + d$)
		13.5.2 Inequalities ($x + c > 2x + d$)
		13.5.3 Which is True?
16 Using Number 3	16.5 Ratio and Proportion	16.5.1 Unit Ratios
		16.5.2 General Ratios
	16.6 Miscellaneous Problems	16.6.1 Logic Problems
		16.6.2 Combinatorics
18 Number	18.2 Number Theory	16.6.3 Number Problems
		18.2.1 Factor Grid
	18.3 Fractions and Percents	18.2.2 How Many Divisors?
		18.3.2 Fraction Inequalities
		18.3.3 Fraction Sums
		18.3.4 Compare Fractions
		18.3.5 Percent Change
		18.3.6 Using Percent Change
	18.4 Comparing Numbers	18.4.2 Largest Smallest Products
		18.4.3 Comparing Expression
		18.4.4 Placing Decimal Points
		18.4.5 Number Bases

Computation & Estimation



Pack	Topic	Activity
6 Multiplication & Division	6.2 Multiplication Tables	6.2.5 General Multiplication 6.2.6 Structured Multiplication
8 Fractions & Decimals 2	8.3 Combining Fractions	8.3.1 Adding Fractions 8.3.2 Subtracting Fractions 8.3.3 Multiply Fractions 8.3.4 Multiply by Fractions
		8.4.3 Rounding Decimals
	8.4 Decimal Notation	8.5.1 Decimal Totals 8.5.2 Subtract Decimals 8.5.3 Decimals (x,÷) by Powers of 10 8.5.4 Missing Digits (Decimals)
	8.5 Decimal Calculations	8.7.1 Simple Percentages 8.7.2 Finding Percentages 8.7.3 Flash Card Percentages
	8.7 Percentages	11.4.1 Divisibility (2,5,10) 11.4.2 Divisibility (2,4,8) 11.4.3 Divisibility (3,6,9) 11.4.4 General Divisibility
		11.5.1 Does It Divide? 11.5.2 Finding Divisors 11.5.3 Factors 11.5.4 HCF (GCD) 11.5.5 LCM 11.5.6 Decanting
		12.1.1 Addition [0,1M] 12.1.2 Subtraction [0,1M] 12.1.3 Add and Subtract Decimals 12.1.4 Add Negative Numbers 12.1.5 Subtract Negative Numbers 12.1.6 Approximate Calculations (+,-)
11 Number Structure	11.4 Divisibility	
	11.5 Divisors and Factors	
12 Number Operations	12.1 Addition and Subtraction	

Pack	Topic	Activity
12 Number Operations (Continued)	12.2 Problems: Add and Subtract	12.2.3 Missing Digits (+,-) 12.2.4 Addition Square (4x4)
	12.3 Multiplication and Division	12.3.1 Multiply [1,1M] 12.3.2 Divide [1,1M] 12.3.3 Multiply and Divide Decimals 12.3.4 Approximate Calculations (x,/) 12.3.5 Extended Multiplication Tables 12.3.6 Divide Integers
		12.4.1 Multiplication Pairs 12.4.2 Missing Digits (x,÷) 12.4.3 Multiplication Square (4x4) 12.4.4 Multibox
		12.5.1 Order of Operations 12.5.2 Making Numbers (+,-) 12.5.3 Making Numbers (+,-,x,÷) 12.5.4 Backtrack
		12.6.1 Squares 12.6.2 Square Roots 12.6.3 Cubes 12.6.4 Cube Roots 12.6.5 Approximating SQRT
		13.2.1 Number Machines (+,-,x) 13.2.2 Number Machines (x and +,-)
	12.4 Problems: Multiply and Divide	
	12.5 Combined Operations	16.1.1 Verbal Problems (+, -) 16.1.2 Verbal Problems (x,÷) 16.1.3 Verbal Problems (+,-,x,÷) 16.1.4 Verbal problems: Powers
		16.2.1 Shopping 16.2.2 Percentages Of Money 16.2.3 Hard Money Problems 16.2.4 Money Calculations
		16.5.1 Unit Ratios 16.5.2 General Ratios
		17.1.1 Tossing Coins 17.1.2 Throwing Dice 17.1.3 Throwing Odd Dice 17.1.4 Spinner 17.1.5 Quincunx 17.1.6 Sampling
	12.6 Powers and Roots	19.1.1 Cyphers (+) 19.1.2 Cyphers (-) 19.1.3 Cyphers (x) 19.1.4 Cyphers (÷)
		19.2.1 Using Calculators 19.2.2 Broken Calculators
	13 Number Relationships	13.2 Number Machines
	16 Using Number 3	19.3.1 How Many Digits (+) 19.3.2 How Many Digits (-) 19.3.3 How Many Digits (x) 19.3.4 How Many Digits (÷)
		19.4.1 Dividing Fractions 19.4.2 Using Mixed Numbers (+) 19.4.3 Using Mixed Numbers (-) 19.4.4 Using Mixed Numbers (x) 19.4.5 Using Mixed Numbers (÷)
		19.5.1 Mental Math 19.5.2 Evaluate Expressions 19.5.3 Find the Digits (+) 19.5.4 Find the Digits (-) 19.5.5 Find the Digits (x) 19.5.6 Find the Digits (÷)
16 Using Number 3	16.1 Word Problems	
	16.2 Money	
	16.5 Ratio and Proportion	
17 Data Handling	17.1 Probability	
19 Computation	19.1 Cyphers	
	19.2 Calculator	
	19.3 Approximate Answers	
	19.4 Computing Fractions	
	19.5 Calculations	