

# KeyMaths-3 Essential Resources Concept Clusters

The concepts and skills covered by the KeyMaths-3 ER are described below:

## LEVEL 1: Years K-2

### NUMERATION

- Cluster 1 Early Number Awareness
- Cluster 2 Using Numbers and Numerals 0–5
- Cluster 3 Using Numbers and Numerals 0–9
- Cluster 4 Using Numbers 0–25
- Cluster 5 Introducing Tens and Ones Place Values
- Cluster 6 Working With Two-Digit Numbers
- Cluster 7 Introducing Fractions and Models
- Cluster 8 Working With Three-Digit Numbers

### ALGEBRA

- Cluster 1 Exploring Likeness/Difference and Simple Sorting
- Cluster 2 Sorting, Classifying, and Generalising
- Cluster 3 Exploring Simple Patterns
- Cluster 4 Exploring Repeating and Growing Patterns
- Cluster 5 Exploring Patterns and Rules
- Cluster 6 Investigating Number Sentences
- Cluster 7 Exploring Expressions, Variables, and Equations

### GEOMETRY

- Cluster 1 Exploring Spatial Relationships Using Positional Terms
- Cluster 2 Exploring Common Two-Dimensional Figures
- Cluster 3 Exploring Common Three-Dimensional Figures
- Cluster 4 Applying Visual Reasoning and Transformations

### MEASUREMENT

- Cluster 1 Making Comparisons
- Cluster 2 Exploring the Passage of Time
- Cluster 3 Using Nonstandard Units
- Cluster 4 Exploring Weeks, Months, and Time to the Hour
- Cluster 5 Using Standard Units to Measure Length
- Cluster 6 Combining Coins and Telling Time

## **LEVEL 1: Years K-2** *(continued)*

### **DATA ANALYSIS AND PROBABILITY**

- Cluster 1 Organising and Representing Simple Data
- Cluster 2 Constructing and Interpreting Simple
- Cluster 3 Using Charts, Tables, and Graphs to Represent Data
- Cluster 4 Exploring Chance and Outcomes

### **MENTAL COMPUTATION AND ESTIMATION**

- Cluster 1 Exploring Strategies for Addition and Subtraction Facts
- Cluster 2 Computing and Estimating Sums and Differences of

### **ADDITION AND SUBTRACTION**

- Cluster 1 Combining, Separating, and Comparing Small Groups
- Cluster 2 Facts for Sums and Minuends 0–9
- Cluster 3 Facts for Sums and Minuends to 18
- Cluster 4 Adding and Subtracting Without Regrouping
- Cluster 5 Adding and Subtracting

### **MULTIPLICATION & DIVISION**

- Cluster 1 Multiplication and Division Models

### **FOUNDATIONS OF PROBLEM SOLVING**

- Cluster 1 Developing Problem-Solving Skills Using One-Digit Numbers
- Cluster 2 Developing Problem-Solving Skills for Addition and Subtraction
- Cluster 3 Developing Problem-Solving Skills Using Two- and Three-Digit Numbers

### **APPLIED PROBLEM SOVLING**

- Problem Cluster 1
- Problem Cluster 2
- Problem Cluster 3
- Problem Cluster 4
- Problem Cluster 5

## LEVEL 2: Years 3-5

### NUMERATION

- Cluster 1 Working With Three- and Four-Digit Numbers
- Cluster 2 Using Models to Explore Fractions
- Cluster 3 Using Multidigit Numbers
- Cluster 4 Investigating Fractions
- Cluster 5 Exploring Decimal Numbers

### ALGEBRA

- Cluster 1 Investigating Expressions, Equations,
- Cluster 2 Analysing Patterns With Rules, Tables, and Graphs
- Cluster 3 Analysing Functions With Tables and Graphs
- Cluster 4 Investigating Mathematical Relationships

### GEOMETRY

- Cluster 1 Investigating Two-Dimensional Figures
- Cluster 2 Investigating Three-Dimensional Figures
- Cluster 3 Using a Coordinate System to Describe Locations and Relationships
- Cluster 4 Applying Visual Reasoning

### MEASUREMENT

- Cluster 1 Estimating and Measuring Length, Distance, Area, and Weight
- Cluster 2 Exploring Money and Time
- Cluster 3 Using Formulas to Calculate Area and Volume
- Cluster 4 Measuring Capacity, Linearity, and Angles

### DATA ANALYSIS AND PROBABILITY

- Cluster 1 Exploring Charts, Tables, and Graphs
- Cluster 2 Collecting and Using Real-World Data
- Cluster 3 Exploring Graphs, Plots, and the Shape of Data
- Cluster 4 Investigating Possible Outcomes and Probability

### MENTAL COMPUTATION AND ESTIMATION

- Cluster 1 Reviewing All Operations and Using Them in Computation Chains
- Cluster 2 Exploring Strategies in Mentally Computing and Estimating in All Concept Cluster 3
- Computing and Estimating Multidigit Numbers

## **LEVEL 2: Years 3-5** *(continued)*

### **ADDITION AND SUBTRACTION**

Cluster 1 Adding and Subtracting Multidigit Numbers

Cluster 2 Adding and Subtracting Fractions and Decimals With Like Terms

Cluster 3 Adding and Subtracting Decimals and Fractions With Unlike

### **MULTIPLICATION AND DIVISION**

Cluster 1 Products and Quotients to 30

Cluster 2 Products and Quotients Greater Than 30

Cluster 3 Multiplying and Dividing by One-Digit Numbers

Cluster 4 Multiplying and Dividing by One-Digit Numbers With Regrouping

Cluster 5 Multiplying and Dividing by Two-Digit Numbers

Cluster 6 Multiplying and Dividing Decimal Values

### **FOUNDATIONS OF PROBLEM SOLVING**

Cluster 1 Extending Problem-Solving Strategy Skills

Cluster 2 Extending Strategies for Solving Word Problems

Cluster 3 Extending Problem-Solving Skills to Multistep Problems

### **APPLIED PROBLEM SOLVING**

Problem Cluster 1

Problem Cluster 2

Problem Cluster 3

Problem Cluster 4

Problem Cluster 5

Problem Cluster 6