

Contents

Program Overview

What Is <i>Leaps and Bounds</i> ?	1
Research and Philosophy	2
How to Use <i>Leaps and Bounds</i>	4
Frequently Asked Questions	7
Components	9

Teaching Notes

Strand: Number

Strand Overview **10**

Representing Whole Numbers **12**

Diagnostic Tool: Representing Whole Numbers	14
Diagnostic Tool: Solutions and Key to Pathways	16
Pathway 1: Representing Numbers to 1000	18
Pathway 2: Representing Numbers to 100	20
Pathway 3: Representing Numbers to 20	22

Skip Counting **24**

Diagnostic Tool: Skip Counting	26
Diagnostic Tool: Solutions and Key to Pathways	28
Pathway 1: Skip Counting to 1000	30
Pathway 2: Skip Counting to 100	32
Pathway 3: Skip Counting to 20	34

Comparing and Ordering Numbers **36**

Diagnostic Tool: Comparing and Ordering Numbers	38
Diagnostic Tool: Solutions and Key to Pathways	40
Pathway 1: Comparing and Ordering to 1000	42
Pathway 2: Comparing and Ordering to 100	44
Pathway 3: Comparing and Ordering to 20	46

Adding Whole Numbers **48**

Diagnostic Tool: Adding Whole Numbers	50
Diagnostic Tool: Solutions and Key to Pathways	52
Pathway 1: Adding Three-Digit Numbers	54
Pathway 2: Adding Two-Digit Numbers	56
Pathway 3: Adding One-Digit Numbers	58

Subtracting Whole Numbers **60**

Diagnostic Tool: Subtracting Whole Numbers	62
Diagnostic Tool: Solutions and Key to Pathways	64
Pathway 1: Subtracting Three-Digit Numbers	66
Pathway 2: Subtracting Numbers to 100	68
Pathway 3: Subtracting Numbers to 20	70

Fractions	72
Diagnostic Tool: Fractions	74
Diagnostic Tool: Solutions and Key to Pathways	76
Pathway 1: Fractions as Parts of Sets	78
Pathway 2: Fractions as Parts of Wholes	80
Pathway 3: Halves	82
Mental Math	84
Diagnostic Tool: Mental Math	86
Diagnostic Tool: Solutions and Key to Pathways	88
Pathway 1: Compensating	90
Pathway 2: Regrouping	92
Pathway 3: Relating to 5 or 10	94
Strand: Patterns and Algebra	
Strand Overview	96
Patterns	98
Diagnostic Tool: Patterns	100
Diagnostic Tool: Solutions and Key to Pathways	102
Pathway 1: Growing and Shrinking Patterns	104
Pathway 2: Repeating Patterns	106
Equality	108
Diagnostic Tool: Equality	110
Diagnostic Tool: Solutions and Key to Pathways	112
Pathway 1: Equality: Using Numbers to 100	114
Pathway 2: Equality: Using Numbers to 20	116
Strand: Geometry	
Strand Overview	118
3-D Shapes	120
Diagnostic Tool: 3-D Shapes	122
Diagnostic Tool: Solutions and Key to Pathways	124
Pathway 1: Describing 3-D Shapes	126
Pathway 2: Building 3-D Shapes	128
2-D Shapes	130
Diagnostic Tool: 2-D Shapes	132
Diagnostic Tool: Solutions and Key to Pathways	134
Pathway 1: Describing 2-D Shapes	136
Pathway 2: Building 2-D Shapes	138
Movement and Location	140
Diagnostic Tool: Movement and Location	142
Diagnostic Tool: Solutions and Key to Pathways	144
Pathway 1: Moving on a Grid	146
Pathway 2: Using Positional Language	148

Strand: Measurement

Strand Overview	150
Length	152
Diagnostic Tool: Length	154
Diagnostic Tool: Solutions and Key to Pathways	156
Pathway 1: Length: Standard Units	158
Pathway 2: Length: Non-Standard Units	160
Mass	162
Diagnostic Tool: Mass	164
Diagnostic Tool: Solutions and Key to Pathways	166
Pathway 1: Mass: Using Grams	168
Pathway 2: Mass: Using Kilograms	170
Pathway 3: Mass: Using Non-Standard Units	172
Capacity	174
Diagnostic Tool: Capacity	176
Diagnostic Tool: Solutions and Key to Pathways	178
Pathway 1: Capacity: Using Litres	180
Pathway 2: Capacity: Non-Standard Units	182
Area	184
Diagnostic Tool: Area	186
Diagnostic Tool: Solutions and Key to Pathways	188
Pathway 1: Area: Using Strategies	190
Pathway 2: Area: Using Whole Units	192
Time	194
Diagnostic Tool: Time	196
Diagnostic Tool: Solutions and Key to Pathways	198
Pathway 1: Reading a Clock	200
Pathway 2: Time: Using Standard Units	202
Pathway 3: Time: Using Non-Standard Units	204

Strand: Data Management

Strand Overview	206
Sorting and Organizing Data	208
Diagnostic Tool: Sorting and Organizing Data	210
Diagnostic Tool: Solutions and Key to Pathways	212
Pathway 1: Sorting: More Than One Attribute	214
Pathway 2: Sorting: One Attribute	216
Displaying Data	218
Diagnostic Tool: Displaying Data	220
Diagnostic Tool: Solutions and Key to Pathways	224
Pathway 1: Data: Many-to-One Correspondence	228
Pathway 2: Data: One-to-One Correspondence	230
Pathway 3: Concrete and Picture Graphs	232

Blackline Masters

BLM 1: Place Value Chart (Hundreds, Tens, Ones)	Blackline Master 1
BLM 2: Place Value Chart (Tens, Ones)	Blackline Master 2
BLM 3: 10-Frames	Blackline Master 3
BLM 4: Number Lines	Blackline Master 4
BLM 5: 100 Charts	Blackline Master 5
BLM 6: 1 cm Square Grid Paper	Blackline Master 6
BLM 7: 2 cm Square Grid Paper	Blackline Master 7
BLM 8: Fraction Circles	Blackline Master 8
BLM 9: Fraction Rectangles	Blackline Master 9
BLM 10: 3-D Shapes	Blackline Master 10
BLM 11: Polygons	Blackline Master 11
BLM 12: Tangrams	Blackline Master 12
BLM 13: Pattern Blocks: Triangle/Grid	Blackline Master 13
BLM 14: Pattern Blocks: Square	Blackline Master 14
BLM 15: Pattern Blocks: Rhombus A	Blackline Master 15
BLM 16: Pattern Blocks: Rhombus B	Blackline Master 16
BLM 17: Pattern Blocks: Trapezoid	Blackline Master 17
BLM 18: Pattern Blocks: Hexagon	Blackline Master 18
BLM 19: Coloured Rods	Blackline Master 19
BLM 20: Objects in Grams	Blackline Master 20
BLM 21: Objects in Kilograms	Blackline Master 21
BLM 22: Pizza Shapes	Blackline Master 22
BLM 23: Wrapping Paper (Rectangle)	Blackline Master 23
BLM 24: Wrapping Paper (Hexagon)	Blackline Master 24
BLM 25: Calendar	Blackline Master 25
BLM 26: Time Line	Blackline Master 26
BLM 27: Venn Diagram	Blackline Master 27
BLM 28: Sorting Mat	Blackline Master 28
BLM 29: Pet Cards	Blackline Master 29
BLM 30: Fish Cards	Blackline Master 30
BLM 31: Animal Cards	Blackline Master 31
BLM 32: Flip Flop Cards	Blackline Master 32
BLM 33: Waste Cards	Blackline Master 33
BLM 34: Food Cards	Blackline Master 34
BLM 35: Graphing Mat	Blackline Master 35
BLM 36: Graphing Grid	Blackline Master 36
BLM 37: Soccer	Blackline Master 37
BLM 38: T-Shirts	Blackline Master 38

Index

273