

# Table of Contents

**Investigation: It's All in the Can!** 2



## **Patterns and Equations** .....

<b>Launch</b>	Calendar Patterns	<b>4</b>
<b>Lesson 1</b>	Patterns in Charts	<b>6</b>
<b>Lesson 2</b>	Extending Number Patterns	<b>10</b>
<b>Lesson 3</b>	Representing Patterns	<b>14</b>
<b>Lesson 4</b>	Equations Involving Addition and Subtraction	<b>18</b>
<b>Lesson 5</b>	Equations Involving Multiplication and Division	<b>22</b>
<b>Game</b>	Number the Blocks	<b>25</b>
<b>Lesson 6</b>	Strategies Toolkit	<b>26</b>
<b>Unit Review</b>	Show What You Know	<b>28</b>
<b>Unit Problem</b>	Calendar Patterns	<b>30</b>



## **Whole Numbers** .....

<b>Launch</b>	Those Amazing Elephants	<b>32</b>
<b>Lesson 1</b>	Whole Numbers to 10 000	<b>34</b>
<b>Lesson 2</b>	Comparing and Ordering Numbers	<b>38</b>
<b>Lesson 3</b>	Sorting Numbers	<b>42</b>
<b>Lesson 4</b>	Estimating Sums	<b>46</b>
<b>Lesson 5</b>	Using Mental Math to Add	<b>49</b>
<b>Lesson 6</b>	Adding 3-Digit Numbers	<b>51</b>
<b>Lesson 7</b>	Adding 4-Digit Numbers	<b>55</b>
<b>Lesson 8</b>	Estimating Differences	<b>59</b>
<b>Lesson 9</b>	Using Mental Math to Subtract	<b>61</b>
<b>Lesson 10</b>	Subtracting 3-Digit Numbers	<b>63</b>
<b>Lesson 11</b>	Strategies Toolkit	<b>68</b>
<b>Lesson 12</b>	Subtracting 4-Digit Numbers	<b>70</b>
<b>Lesson 13</b>	Solving Addition and Subtraction Problems	<b>73</b>
<b>Unit Review</b>	Show What You Know	<b>76</b>
<b>Unit Problem</b>	Those Amazing Elephants	<b>78</b>



**UNIT**

**3**

**Multiplication and Division Facts** .....

<b>Launch</b>	Here Comes the Band!	<b>80</b>
<b>Lesson 1</b>	Using Doubles to Multiply	<b>82</b>
<b>Lesson 2</b>	Multiplying by 1, by 0, and by 10	<b>86</b>
<b>Lesson 3</b>	Using Skip Counting to Multiply	<b>90</b>
<b>Lesson 4</b>	Other Strategies for Multiplying	<b>94</b>
<b>Lesson 5</b>	Using Patterns in a Multiplication Chart	<b>98</b>
<b>Game</b>	Array, Array!	<b>101</b>
<b>Lesson 6</b>	Strategies Toolkit	<b>102</b>
<b>Lesson 7</b>	Using Arrays to Divide	<b>104</b>
<b>Lesson 8</b>	Relating Multiplication and Division	<b>107</b>
<b>Lesson 9</b>	Dividing by Numbers from 1 to 9	<b>110</b>
<b>Lesson 10</b>	Pose and Solve Problems	<b>113</b>
<b>Unit Review</b>	Show What You Know	<b>116</b>
<b>Unit Problem</b>	Here Comes the Band!	<b>118</b>

<b>Cumulative Review Units 1 – 3</b>	<b>120</b>
--------------------------------------	------------

**UNIT**

**4**

**Measurement** .....

<b>Launch</b>	Design a Playground	<b>122</b>
<b>Lesson 1</b>	Calendar Time	<b>124</b>
<b>Lesson 2</b>	Exploring Time	<b>128</b>
<b>Lesson 3</b>	Telling Time	<b>132</b>
<b>Lesson 4</b>	Elapsed Time	<b>136</b>
<b>Lesson 5</b>	Telling Time to the Minute	<b>139</b>
<b>Lesson 6</b>	The 24-Hour Clock	<b>142</b>
<b>Lesson 7</b>	Covering Shapes	<b>146</b>
<b>Lesson 8</b>	Exploring Area	<b>150</b>
<b>Lesson 9</b>	Measuring Area in Square Centimetres	<b>153</b>
<b>Lesson 10</b>	Estimating and Measuring Area	<b>156</b>
<b>Lesson 11</b>	Finding Area in Square Metres	<b>159</b>
<b>Lesson 12</b>	Strategies Toolkit	<b>162</b>
<b>Lesson 13</b>	Exploring Rectangles with Equal Areas	<b>164</b>
<b>Unit Review</b>	Show What You Know	<b>166</b>
<b>Unit Problem</b>	Design a Playground	<b>168</b>

<b>Investigation: The Icing on the Cake</b>	<b>170</b>
---	------------



UNIT

5

**Fractions and Decimals** .....

<b>Launch</b>	Spring Activities Day	172
<b>Lesson 1</b>	Fractions of a Whole	174
<b>Lesson 2</b>	Fraction Benchmarks	178
<b>Lesson 3</b>	Exploring Fractions of a Set	180
<b>Lesson 4</b>	Finding a Fraction of a Set	183
<b>Lesson 5</b>	Relating Fractional Parts of Different Wholes and Sets	186
<b>Lesson 6</b>	Strategies Toolkit	188
<b>Lesson 7</b>	Comparing and Ordering Unit Fractions	190
<b>Lesson 8</b>	Comparing and Ordering Fractions with the Same Numerator or Denominator	193
<b>Lesson 9</b>	Exploring Tenths	197
<b>Lesson 10</b>	Exploring Hundredths	200
<b>Lesson 11</b>	Equivalent Decimals	203
<b>Lesson 12</b>	Adding Decimals to Tenths	205
<b>Lesson 13</b>	Subtracting Decimals to Tenths	209
<b>Lesson 14</b>	Adding and Subtracting Decimals to Hundredths	212
<b>Unit Review</b>	Show What You Know	216
<b>Unit Problem</b>	Spring Activities Day	218



UNIT

6

**Geometry** .....

<b>Launch</b>	Building Castles	220
<b>Lesson 1</b>	Objects in Our World	222
<b>Lesson 2</b>	Constructing Prisms	226
<b>Lesson 3</b>	Exploring Nets	229
<b>Lesson 4</b>	Strategies Toolkit	232
<b>Lesson 5</b>	Symmetrical Shapes	234
<b>Lesson 6</b>	Line Symmetry	237
<b>Lesson 7</b>	Sorting by Lines of Symmetry	241
<b>Game</b>	What's My Rule?	245
<b>Unit Review</b>	Show What You Know	246
<b>Unit Problem</b>	Building Castles	248

<b>Cumulative Review Units 1 – 6</b>	250
--------------------------------------	-----



**UNIT**  
**7**

**Data Analysis** .....

<b>Launch</b>	Using Data to Answer Questions	<b>252</b>
<b>Lesson 1</b>	Reading Pictographs and Bar Graphs	<b>254</b>
<b>Lesson 2</b>	Drawing Pictographs	<b>258</b>
<b>Lesson 3</b>	Drawing Bar Graphs	<b>262</b>
<b>Lesson 4</b>	Comparing Pictographs and Bar Graphs	<b>266</b>
<b>Lesson 5</b>	Strategies Toolkit	<b>270</b>
<b>Unit Review</b>	Show What You Know	<b>272</b>
<b>Unit Problem</b>	Using Data to Answer Questions	<b>274</b>



**UNIT**  
**8**

**Multiplying and Dividing Larger Numbers** .....

<b>Launch</b>	At the Garden Centre	<b>276</b>
<b>Lesson 1</b>	Exploring Multiplication Patterns	<b>278</b>
<b>Lesson 2</b>	Estimating Products	<b>282</b>
<b>Lesson 3</b>	Using Models to Multiply	<b>285</b>
<b>Lesson 4</b>	Strategies Toolkit	<b>288</b>
<b>Lesson 5</b>	Other Strategies for Multiplication	<b>290</b>
<b>Lesson 6</b>	Using Patterns to Multiply	<b>293</b>
<b>Lesson 7</b>	Multiplying a 3-Digit Number by a 1-Digit Number	<b>295</b>
<b>Lesson 8</b>	Estimating Quotients	<b>299</b>
<b>Lesson 9</b>	Division with Remainders	<b>302</b>
<b>Lesson 10</b>	Using Base Ten Blocks to Divide	<b>305</b>
<b>Lesson 11</b>	Another Strategy for Division	<b>308</b>
<b>Game</b>	Less Is More	<b>311</b>
<b>Unit Review</b>	Show What You Know	<b>312</b>
<b>Unit Problem</b>	At the Garden Centre	<b>314</b>



**Investigation: Circle Patterns** **316**

**Cumulative Review Units 1 - 8** **318**

**Illustrated Glossary** **322**

**Index** **333**

**Acknowledgments** **337**

