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**Pearson *Math Makes Sense***

**Combined Grade Resource: Grades 3 and 4**

***Content Sample***

## Year at a Glance

Here is a suggested *Math Makes Sense* sequence for your Grades 3-4 combined class.

|  | September | October                     | November                         | December                                  | January       |
|--|-----------|-----------------------------|----------------------------------|---|---------------|
| Grade 3<br><i>Math Makes Sense</i><br>Unit |           | 1<br>Patterning             | 3<br>Addition and<br>Subtraction | 2<br>Numbers to 1000                      | 6<br>Geometry |
| Recommended Timing<br>(weeks)              |           | 4 weeks                     | 3 weeks                          | 3 weeks                                   | 3 weeks       |
| Grade 4<br><i>Math Makes Sense</i><br>Unit |           | 1<br>Patterns and Equations | 2<br>Whole Numbers               | 3<br>Multiplication and<br>Division Facts | 6<br>Geometry |
|  | September | October                     | November                         | December                                  | January       |

| February              | March            | April                       | May   | June     |  |
|-----------------------|------------------|-----------------------------|---|----------|--|
| 7<br>Data<br>Analysis | 4<br>Measurement | 5<br>Fractions              | 8<br>Multiplication and<br>Division             |          | Grade 3<br><i>Math Makes Sense</i><br>Unit |
| 2 weeks               | 6 weeks          | 5 weeks                     | 4 weeks   |          | Recommended Timing<br>(weeks)              |
| 7<br>Data<br>Analysis | 4<br>Measurement | 5<br>Fractions and Decimals | 8<br>Multiplying and Dividing<br>Larger Numbers |          | Grade 4<br><i>Math Makes Sense</i><br>Unit |
|                       | September        | October                     | November  | December | January                                    |

## Sequencing Rationale

The sequence suggested above reorders *Math Makes Sense* units so that you can...

- allow for students to settle into classroom routines, in September, while working with familiar content that is closely aligned across both grades.
- allow you, as the classroom teacher, to allot appropriate instructional time for each of the eight *Math Makes Sense* units.
- teach the concept of fractional numbers and values, an important number unit at these levels, to both classes concurrently.
- create opportunities for Grade 4 mentors, and Grade 4 review, as Grade 3 students work on basic multiplication and division skills.

**Pacing:** Though the majority of the *Math Makes Sense* units at the grade 3 and 4 levels reflect common concepts, it should be noted that many differ in length (particularly Unit 5). The suggested calendar plan accommodates this with a fluid timeframe, which will create time for one grade grouping to consolidate and demonstrate their learning, while the other grade grouping moves forward with new content for them.

## **Content Considerations**

**Unique at Grade 3:** *Math Makes Sense 3* has a single unit on Multiplication and Division. It devotes a full unit to Addition and Subtraction, which is a reviewed and enhanced concept at this level.

**Common:** The concepts addressed in the units of *Math Makes Sense 3* and *4* are largely paralleled, with only two exceptions (Addition and Subtraction/Whole Numbers, and Numbers to 1000/Multiplication and Division Facts). Even in these cases, however, the foundational skills involved are very much the same. As one would expect, there are developmentally appropriate differences between the two resources, such as the use of decimals in grade 4 to represent a fractional value, or a measurement focus on perimeter in grade 3 and surface area in grade 4. At both grade levels, however, all students use similar fundamental concepts, build on place-value and quantity concepts in number units, and develop increasing levels of skill with patterns and equations.

**Unique at Grade 4:** *Math Makes Sense 4* has two units covering Multiplication and Division, with explicit instruction on basic facts in the first of these units.

## **Classroom Considerations**

**Teaching Together:** In the Number units, plan for concurrent lessons when students are working on parallel concepts. At times this can even allow for matching Explore contexts, with adjustments for the range of numbers and values students will work with. In the units on Measurement, and Fractions/Fractions and Decimals, there will be opportunities for common activities and common games, as well as a need for day-to-day planning that allows you to devote time to an individual grade group.

**Teaching Apart:** The Shape and Space strand emphasizes different topics across Grades 3 and 4. Select *Math Makes Sense* features like the Activity Banks and Mathematics Centres, and promote the importance of student mentors, to provide ways for students in one grade grouping to engage in mathematical content independently, on those days when you may need to focus most of your attention on students in the other grade.

For more details on effective classroom strategies, and specific *Math Makes Sense* features to look for, see pages ii and iii of this *Together* resource.



# Topic Plan: Patterns and Equations

*MMS 3 Unit 1*

*MMS 4 Unit 1*

## Essential Learnings Across the Grades

| <i>Grade 2</i>  | <i>Grade 3</i>  | <i>Grade 4</i>  | <i>Grade 5</i>   |
|---|---|---|--|
| <ul style="list-style-type: none"><li>▪ Students demonstrate an understanding of repeating patterns (3 to 5 elements) by describing, extending, comparing, creating patterns using manipulatives, diagrams, sounds, and actions</li><li>▪ Students demonstrate an understanding of increasing patterns by describing, reproducing, extending, creating patterns using manipulatives, diagrams, sounds, and actions (numbers to 100)</li></ul> | <ul style="list-style-type: none"><li>▪ Students demonstrate an understanding of increasing and decreasing patterns by describing, extending, comparing, and creating patterns using manipulatives, diagrams, sounds, and actions</li></ul> | <ul style="list-style-type: none"><li>▪ Students identify and describe patterns found in tables and charts, and reproduce a pattern shown in a table or chart using concrete materials</li><li>▪ Students represent and describe patterns and relationships using charts and tables to solve problems</li><li>▪ Students express a given problem as an equation, and solve one-step equations where a symbol is used to represent an unknown number</li></ul> | <ul style="list-style-type: none"><li>▪ Students determine the pattern rule to make predictions about subsequent elements in a pattern</li><li>▪ Students solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions</li></ul> |

## Content Considerations

### Unique at Grade 3

- 

### Common

- Applying place-value concepts and other strategies to add and subtract whole numbers
- Working with various increasing and decreasing patterns
- Skip-counting

### Unique at Grade 4

- Using charts and tables to illustrate and communicate patterns, including a multiplication chart

## Classroom Considerations

### Pacing

Grade 3s have 8 lessons, Grade 4s have 6 lessons.

September can be a hectic time with many interruptions and distractions. This topic plan includes whole-group game and activities days that may be excluded if time is limited. Grade 4 Lesson 5 will be included in a later unit, when Grade 3s are working on multiplication and division.

### Teaching Together

Lesson pairs with common concepts are found on Days 5, 6, 11.

### Teaching Apart

Since Grade 3s have more lessons to cover, you might:

- Engage Grade 4s with math centres and Activity Banks from MMS
- Selectively assign Grade 4 students as mentors for younger students

Duration: 3 - 4  
Weeks

|                     | <b><i>MMS 3</i> Unit 1<br/>Patterning</b>   | <b><i>MMS 4</i> Unit 1<br/>Patterns and Equations</b>           |                     |
|---------------------|---|---|---------------------|
| DAY 1               | <i>MMS 3</i> Unit 1, <i>MMS 4</i> Unit 1<br>Launch                                |   | DAY 1               |
| DAY 2               | Unit 1 Lesson 1<br>Exploring Increasing Numbers                                   | Unit 1 Lesson 2<br>Extending Number Patterns                    | DAY 2               |
| DAY 3               | Unit 1 Lesson 2<br>Creating Increasing Patterns                                   |   | DAY 3               |
| DAY 4               | Unit 1 Lesson 3<br>Comparing Increasing Patterns                                  | Unit 1 Lesson 3<br>Representing Patterns                        | DAY 4               |
| DAY 5               | Unit 1 Lesson 4<br>Increasing Number Patterns                                     | Unit 1 Lesson 1<br>Patterns in Charts                           | DAY 5               |
| DAY 6               | Unit 1 Lesson 8<br>Decreasing Number Patterns                                     |   | DAY 6               |
| DAY 7               | Games Day<br>Additional Activities 1, 2, 3, 4                                     | Games Day<br>Additional Activities 1, 2, 3                      | DAY 7               |
| DAY 8               | Unit 1 Lesson 6<br>Exploring Decreasing Patterns                                  | Unit 1 Lesson 4<br>Equations Involving Addition and Subtraction | DAY 8               |
| DAY 9               | Unit 1 Lesson 7<br>Creating and Comparing Decreasing Patterns                     |   | DAY 9               |
| DAY 10              |   | Game<br>Number the Blocks                                       | DAY 10              |
| DAY 11              | Unit 1 Lesson 5<br>Strategies Toolkit   | Unit 1 Lesson 6<br>Strategies Toolkit                           | DAY 11              |
| DAY 12<br>*Optional | Games Day*<br>Additional Activities 1, 2, 3, 4;<br>Game: What's the Pattern Rule? | Games Day*<br>Additional Activities 1, 2, 3, 4                  | DAY 12<br>*Optional |
| DAY 13              | Unit 1 Show What You Know   | Unit 1 Show What You Know                                       | DAY 13              |
| DAY 14              | Unit 1 Unit Problem<br>It's a Pattern Party!                                      | Unit 1 Unit Problem<br>Calendar Patterns                        | DAY 14              |
| DAY 15              | Unit 1 Unit Test  | Unit 1 Unit Test  | DAY 15              |

# Patterns and Equations

**DAY**  
**1**

Grade 3  
Activate prior learning about patterns (sounds, actions)

We can find and create patterns.

Grade 4  
Activate prior learning about patterns (calendars, numbers)

| <b><i>MMS 3 Unit 1</i></b><br><b>Launch, SE pp. 4-5</b> | <b><i>MMS 4 Unit 1</i></b><br><b>Launch, SE pp. 4-5</b> |
|---|---|
| Materials<br>N/A  | Materials<br>N/A  |

## Lesson Plan

**Activate Prior Learning**

Present the Grade 3 Unit Launch to the whole class. As described in Grade 3 TG page 2. Pair Grade 3s and 4s together, or project Grade 3 SE pages 4, 5. Have the class answer the questions on Grade 3 SE page 5.

Then, present the Grade 4 Unit Launch to the whole class. Project Grade 4 SE pages 4, 5 and have the class answer the questions on Grade 4 SE page 5.

Discuss the meanings of the key words for both grades, and outline the various learning goals.

Have Grade 3s and Grade 4s record their responses to questions and any other ideas they have in their math journals.

- Students work independently of teacher.



# Patterns and Equations

Grade 3  
Describe and extend growing patterns

We can find and create increasing patterns.

Grade 4  
Extend patterns in a table to solve problems

|   |  |
|---|--|
| <b>MMS 3 Unit 1,<br/>Lesson 1, SE pp. 6-8<br/>Exploring Increasing Patterns</b> | <b>MMS 4 Unit 1,<br/>Lesson 2, SE pp. 10-13<br/>Extending Number Patterns</b>  |
| Materials and Resources   | Materials and Resources<br>geoboards, geobands, 2-column charts (PM 19), 3-column charts (PM 20), 4-column charts (PM 21), 1-cm grid paper (PM 23), square dot paper (PM 25) |
| Materials for all<br>Pattern Blocks (PM 28)                                     |  |

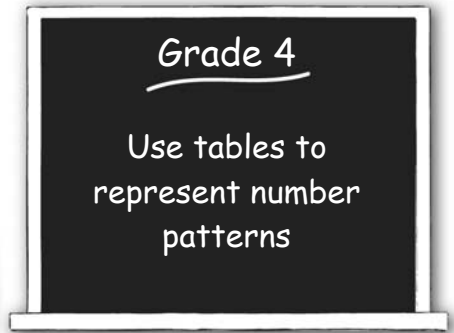
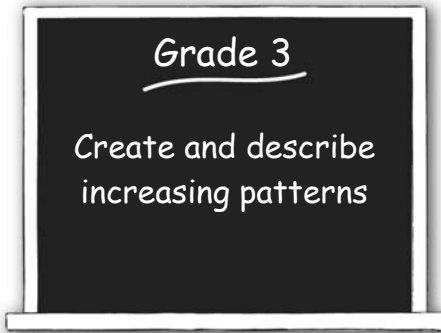
## Lesson Plan

|   |  |
|---|--|
| <b>Before/Get Started</b><br>Have the whole class read the lesson opener at the top of Grade 3 SE page 6, and answer the questions.   |  |
| <b>During/Explore</b><br>Present the Explore from Grade 3 SE page 6.<br>Extend for Grade 4s and have them use a 3-column chart to list the Figure Number, the number of red blocks, and the number of green blocks. |  |
| <b>After/Connect</b><br>Gather students from both grades together. Teacher-led discussion of the Explore and Connect.<br>Direct Grade 3s to start the Practice questions.   |  |
| Practice: Students work on Practice questions.  | Explore: As described in Grade 4 TG page 8. Distribute geoboards, geobands, and square dot paper, and present the Grade 4 Explore, SE page 10. Complete all tasks with students as you read each bulleted instruction. |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**3**



|  |   |
|--|---|
| <b><i>MMS 3</i> Unit 1,<br/>Lesson 2, SE pp. 9-11<br/>Creating Increasing Patterns</b> | <b><i>MMS 4</i> Unit 1,<br/>Lesson 2, SE pp. 10-13, continued<br/>Extending Number Patterns</b> |
| Materials and Resources<br>square tiles, 1-cm grid paper (PM 23)                       | Materials and Resources<br>geoboards, geobands, square dot paper                                |

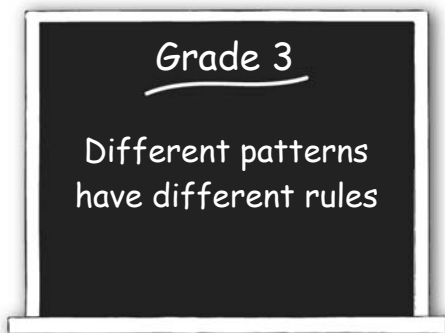
## Lesson Plan

|   |   |
|---|---|
| <b>Before/Get Started</b>   |   |
| Ask Grade 3 students to read and respond to the Reflect question from Lesson 1, Grade 3 SE page 8. When finished, they should read the lesson opener at the top of Grade 3 SE page 9, and answer the questions. |   |
| Students work on Reflect, and on Before.  | <b>During/Explore</b><br>Review the questions from Show and Share, Grade 4 SE page 10. Teacher-led discussion of the Explore (as described in TG page 9).   |
| Direct students' attention to Explore, Grade 3 SE page 9. Distribute square tiles and grid paper, and have students work in pairs on the Explore.   | Students draw the 8th and 9th rectangles to check.  |
| <b>During/Explore</b><br>Students work on the Explore.  | <b>After/Connect</b><br>As described in Grade 4 TG page 10. Review Connect, Grade 4 SE page 11. Direct students to start the Practice questions. Encourage them to work independently and to offer peer mentorship. |
| <b>After/Connect</b><br>Teacher-led discussion of the Explore and Connect.  | <b>Practice:</b> Students work on Practice questions. Early finishers can complete the Reflect question, Grade 4 SE page 13.  |
| <b>Practice:</b> Students work on Practice questions.   |   |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**4**



|  |  |
|--|--|
| <b><i>MMS 3</i> Unit 1,<br/>Lesson 3, SE pp. 12-14<br/>Comparing Increasing Patterns</b> | <b><i>MMS 4</i> Unit 1,<br/>Lesson 3, SE pp. 14-17<br/>Representing Patterns</b>                                       |
| Materials and Resources<br>square tiles  | Materials and Resources<br>counters, Pattern Blocks (PM 28), square dot paper (PM 25),<br>triangular dot paper (PM 26) |
| Materials for all<br>1-cm grid paper (PM 23)   |  |

## Lesson Plan

|  |   |
|--|---|
| <b>Before/Get Started</b><br>Have Grade 3s pair up, and read and do the Explore on Grade 3 SE page 12. |   |
| <b>During/Explore</b><br>Students work on Explore.   | <b>During/Explore</b><br>Present the Grade 4 Explore, Grade 4 SE page 14. |
| <b>After/Connect</b><br>Teacher-led discussion of the Explore and the Connect.                         | Students work on Explore.   |
| <b>Practice:</b> Students work on Practice questions.  | <b>After/Connect:</b> Teacher-led discussion of the Explore and Connect.  |
|  | <b>Practice:</b> Students work on Practice questions.                     |
|  |   |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**5**

Grade 3

Use skip-counting to explore increasing patterns

We can find patterns in number charts.

Grade 4

Investigate and describe patterns in charts

|   |   |
|---|---|
| <b><i>MMS 3</i> Unit 1,<br/>Lesson 4, SE pp. 15-17<br/>Increasing Number Patterns</b> | <b><i>MMS 4</i> Unit 1,<br/>Lesson 1, SE pp. 6-9<br/>Patterns in Charts</b> |
| Materials and Resources   | Materials and Resources<br>1-cm grid paper (PM 23)                          |
| Materials for all<br>hundred charts (PM 15), crayons or pencil crayons                |   |

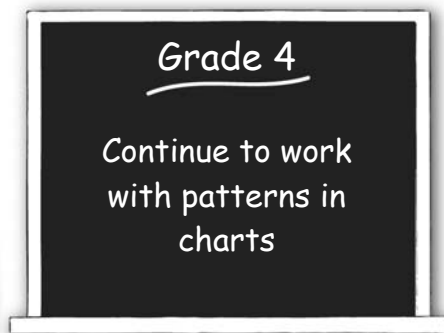
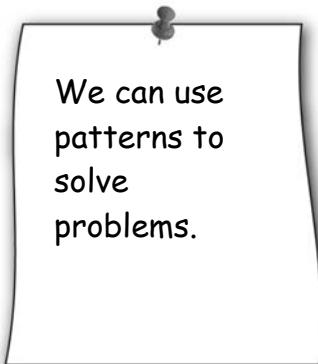
## Lesson Plan

|  |  |
|--|--|
| <b>Before/Get Started</b><br>With the whole class, discuss the patterns found in the 100-chart at the top of MMS 4 page 6.<br>Distribute 100-charts. |  |
| <b>During/Explore</b><br>Students read and work on the Explore, Grade 3 SE page 15.  | <b>During/Explore</b><br>Students read and work on the Explore, Grade 4 SE page 6. |
| <b>After/Connect</b><br>Whole-class discussion on the Explores from both grades. Send Grade 3s to Practice.  |  |
| <b>Practice:</b> Students work on Practice questions. When finished, they should answer the Reflect question, Grade 3 SE page 17.                    | <b>After/Connect</b><br>Teacher-led discussion of the Grade 4 Connect.             |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**6**



|  |   |
|--|---|
| <b><i>MMS 3</i> Unit 1,<br/>Lesson 8, SE pp.28-31<br/>Decreasing Number Patterns</b> | <b><i>MMS 4</i> Unit 1,<br/>Lesson 1, SE pp. 6-9 (continued)<br/>Patterns in Charts</b> |
| Materials and Resources<br>hundred chart from 100 to 1 (Master 1.18)                 | Materials and Resources<br>hundred charts (PM 15), 1-cm grid paper                      |
| Materials for all<br>pencil crayons  |   |

## Lesson Plan

|  |  |
|--|--|
| <b>Before/Get Started</b><br>With the whole class, discuss the problem at the top of Grade 3 SE page 28.<br>Send Grade 4s to Practice. |  |
| <b>During/Explore</b><br>Present Explore. Distribute hundred charts.<br>Teacher-led discussion of the Explore.                         | Practice: Students work on Practice questions.<br>When finished, encourage students to respond to the Reflect question, Grade 4 SE page 9. |
| <b>After/Connect</b><br>Teacher-led discussion of the Connect.   |  |
| Practice: Students work on Practice questions.   |  |
|  |  |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**7**

Grade 3  
Use knowledge about patterns in different activities

We can use patterns in games.

Grade 4  
Use knowledge about patterns in different activities

| <i>MMS 3 Unit 1, Additional Activities, ProGuide™ p. ix</i>   | <i>MMS 4 Unit 1, Additional Activities, ProGuide™ p. ix</i>   |
|---|---|
| <p>Materials and Resources</p> <p>Missing Figures<br/>Master 1.7, square tiles, cardboard divider</p> <p>Roll and Go!<br/>Master 1.8, number cubes</p> <p>Patterning Mix-Up<br/>Master 1.9, 1-cm grid paper, scissors, coloured pencils or markers</p> <p>Missing Numbers<br/>Master 1.10, calculators, strips of paper</p> | <p>Materials and Resources</p> <p>Number Search<br/>Master 1.7, hundred chart (PM 15)</p> <p>Patterns to the Nines<br/>Master 1.8, calculators</p> <p>Twenty-One<br/>Master 1.9, Snap Cubes</p> |

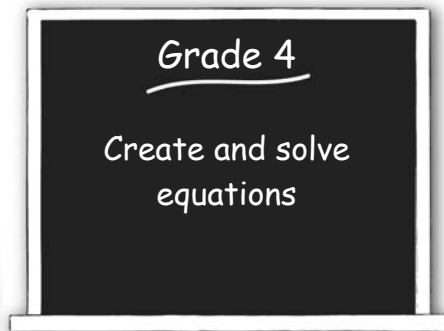
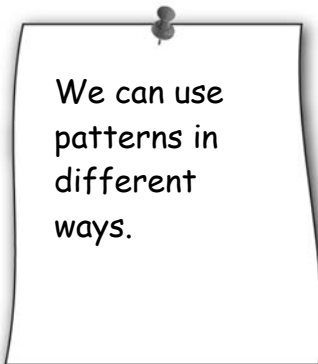
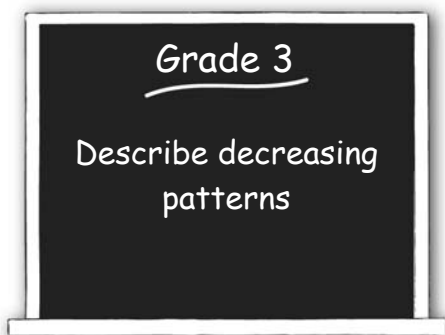
## Lesson Plan

|   |  |
|---|--|
| <p><b>Before/Get Started</b></p> <p>Explain to students that they are going to use their knowledge of patterns to play mathematical games at various stations.<br/>Give the instructions for some or for all of these or other games as needed.</p> |  |
| <p>Practice: Students rotate through the centres.<br/>Circulate to assist as needed.</p>  | <p>Practice: Students rotate through the centres.<br/>Circulate to assist as needed.</p> |
| <p>Gather students and invite them to talk about their experiences with these activities.<br/>You might like to draw attention to the products or thinking of one group or another to highlight important concepts for the whole class.</p>         |  |

- Students work independently of teacher.

# Patterns and Equations

**DAY**  
**8**



|  |  |
|--|--|
| <b>MMS 3 Unit 1,<br/>Lesson 6, SE pp.21-24<br/>Exploring Decreasing Patterns</b> | <b>MMS 4 Unit 1,<br/>Lesson 4, SE pp. 18-21<br/>Equations Involving Addition and Subtraction</b>                   |
| Materials and Resources<br>Snap Cubes  | Materials and Resources<br>Base Ten Blocks, 2-colour counters, scissors, equation cards (Master 1.16), blank cards |

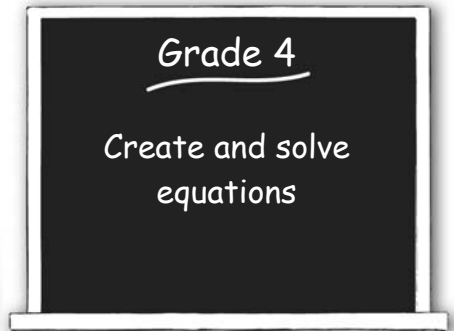
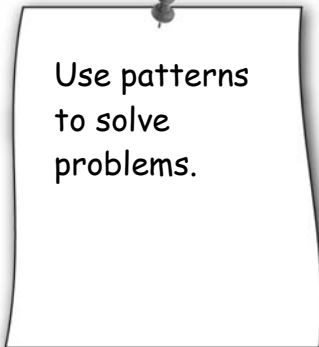
## Lesson Plan

|   |  |
|---|--|
| <b>Before/Get Started</b><br>Ask Grade 4s to write a response to the Reflect question on Grade 4 SE page 17.                                |  |
| <b>Before/Get Started</b><br>As described in Grade 3 TG page 19.<br>Then, hand out Snap Cubes and explain the instructions for the Explore. | Students work on Reflect.  |
| <b>During/Explore</b><br>Students work on Explore.  | <b>Before/Get Started</b><br>As described in Grade 4 TG page 16.<br>Hand out equation cards (Master 1.16) and present Explore. |
| <b>After/Connect</b><br>Teacher-led discussion of the Explore and Connect (as described in Grade 3 TG pages 19, 20, 21).                    | <b>During/Explore</b><br>Students play the game in Explore.  |
| <b>Practice:</b> Students work on Practice questions.   | <b>After/Connect:</b> Teacher-led discussion of Explore and Connect (as described in Grade 4 TG pages 17, 18).                 |
|   | <b>Practice:</b> Students work on Practice questions.  |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**9**



|  |  |
|--|--|
| <p><b><i>MMS 3</i> Unit 1,<br/>Lesson 7, SE pp. 25-27<br/>Creating and Comparing Decreasing Patterns</b></p> | <p><b><i>MMS 4</i> Unit 1,<br/>Lesson 4, SE pp. 18-21 (continued)<br/>Equations Involving Addition and Subtraction</b></p> |
| <p>Materials and Resources<br/>counters, Pattern Blocks</p>  | <p>Materials and Resources<br/>Base Ten Blocks, counters</p>   |

## Lesson Plan

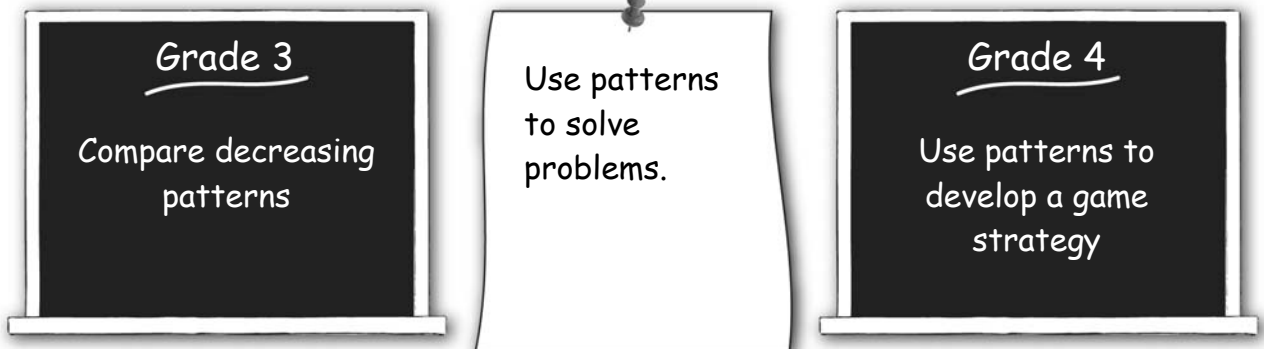
|  |   |
|--|---|
| <p><b>Before/Get Started</b></p> <p>Have Grade 3s write a response to the Reflect question, Grade 3 SE page 24. Send Grade 4s to Practice, where they will continue working on Practice questions from Lesson 4.</p> |   |
| <p><b>Before/Get Started</b></p> <p>Present the lesson opener at the top of Grade 3 SE page 25. Then, hand out counters and present Explore.</p>   | <p><b>Practice:</b> Students work on Practice questions. When finished, they should answer the Reflect question on Grade 4 SE page 21 with a partner.</p> |
| <p><b>During/Explore</b></p> <p>Students work on Explore. Circulate and ask questions, as described in Grade 3 TG page 23.</p>   |   |
| <p><b>After/Connect</b></p> <p>Teacher-led discussion of the Explore and Connect.</p>  |   |

■ Students work independently of teacher.



# Patterns and Equations

**DAY**  
**10**



|  |   |
|--|---|
| <p><b><i>MMS 3</i> Unit 1,<br/>Lesson 7, SE pp. 25-27 (continued)<br/>Creating and Comparing Decreasing<br/>Patterns</b></p> | <p><b><i>MMS 4</i> Unit 1,<br/>Game, SE p. 25<br/>Number the Blocks</b></p> |
| <p>Materials for all<br/>Pattern Blocks</p>  |   |

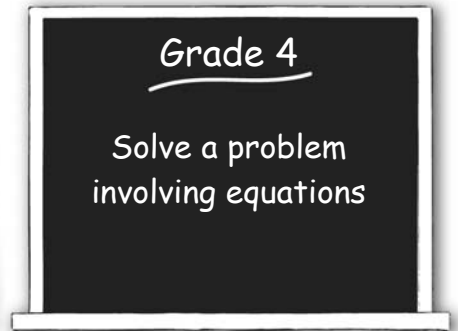
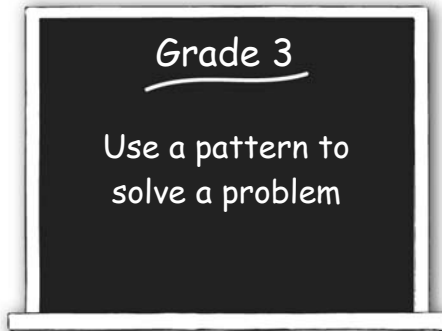
## Lesson Plan

|   |  |
|---|--|
| <p>Before/Get Started<br/>Send Grade 3s to Practice.</p>  |  |
| <p>Practice: Students work on Practice questions. When finished, they should answer the Reflect question, Grade 3 SE page 27.</p> | <p>Before/Get Started<br/>With students, read the instructions for the game, Grade 4 SE page 25.</p> |
|   | <p>During/Explore<br/>Students play the game.</p>  |
|   | <p>After/Connect<br/>Pose questions, as described in Grade 4 TG page 23.</p>                         |

- Students work independently of teacher.

# Patterns and Equations

**DAY**  
**11**



|   |   |
|---|---|
| <b><i>MMS 3</i> Unit 1,<br/>Lesson 5, SE pp. 18-19<br/>Strategies Toolkit</b> | <b><i>MMS 4</i> Unit 1,<br/>Lesson 6, SE pp. 26-27<br/>Strategies Toolkit</b> |
| Materials and Resources   | Materials and Resources<br>counters (optional)                                |
| Materials for all<br>Pattern Blocks (PM 28)                                   |   |

## Lesson Plan

|   |  |
|---|--|
| <b>Before/Get Started</b><br>Send Grade 3s to finish Practice questions from Lesson 7, including the Reflect question (Grade 3 SE page 27).   |  |
| Grade 3s work on Practice questions.  | Before/Get Started<br>Present Explore, Grade 4 SE page 26. |
| Before/Get Started<br>Present Explore, Grade 3 SE page 18.  | During/Explore<br>Students work on Explore.                |
| During/Explore<br>Students work on Explore.   | After/Connect<br>Work through Connect with the class.      |
| <b>After/Connect</b><br>With the whole class, present Connect from Grade 3 SE page 18. Pair up Grade 3s and Grade 4s to work on this problem. |  |
| Practice: Students work on Practice questions.  | Practice: Students work on Practice questions.             |

■ Students work independently of teacher.

# Patterns and Equations

Grade 3  
Use knowledge about patterns in different activities

We can play games that involve patterns.

Grade 4  
Use knowledge about patterns in different activities

| <b><i>MMS 3 Unit 1, Additional Activities, ProGuide™ p. ix *Optional</i></b>  | <b><i>MMS 4 Unit 1, Additional Activities, ProGuide™ p. ix *Optional</i></b>  |
|---|---|
| <p>Materials and Resources</p> <p>Missing Figures<br/>Master 1.7, square tiles, cardboard divider</p> <p>Roll and Go!<br/>Master 1.8, number cubes</p> <p>Patterning Mix-Up<br/>Master 1.9, 1-cm grid paper, scissors, coloured pencils or markers</p> <p>Missing Numbers<br/>Master 1.10, calculators, strips of paper</p> | <p>Materials and Resources</p> <p>Number Search<br/>Master 1.7, hundred chart (PM 15)</p> <p>Patterns to the Nines<br/>Master 1.8, calculators</p> <p>Twenty-One<br/>Master 1.9, Snap Cubes</p> <p>Make It Work<br/>Master 1.10, Pattern Blocks</p> |
| <p>Materials for all</p> <p>Game: What's the Pattern Rule?, Grade 3 SE p. 20<br/>square tiles, Game Cards (Master 1.19)</p>   |   |

## Lesson Plan

| <b>Before/Get Started</b>   |  |
|---|--|
| <p>Introduce this as a day that students will be playing games and doing activities that involve patterns.<br/>Give the instructions for some or for all of these or other games as needed.</p> |  |
| <p>Practice: Students rotate through the centres.<br/>Circulate to assist as needed.</p>  | <p>Practice: Students rotate through the centres.<br/>Circulate to assist as needed.</p> |
| <p>Have the whole class play the game: What's the Pattern Rule?, Grade 3 SE page 20.</p>  |  |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**13**



|   |  |
|---|--|
| <b><i>MMS 3</i> Unit 1,<br/>Show What You Know, SE pp. 32-33</b>    | <b><i>MMS 4</i> Unit 1,<br/>Show What You Know, SE pp. 28-29</b> |
| Materials and Resources<br>Pattern Blocks (PM 28)                   | Materials and Resources<br>counters                              |
| Materials for all<br>hundred chart (PM 15), 1-cm grid paper (PM 23) |  |

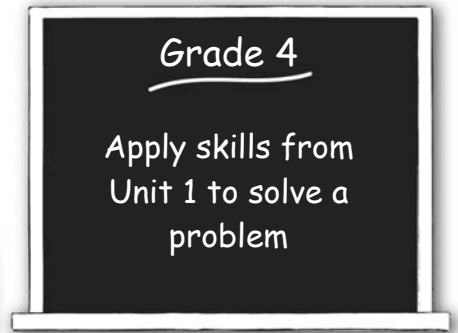
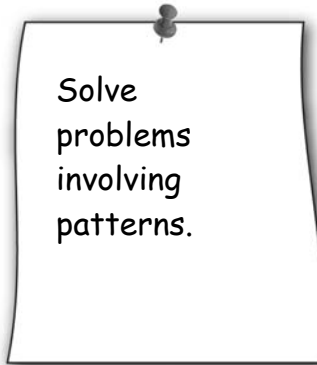
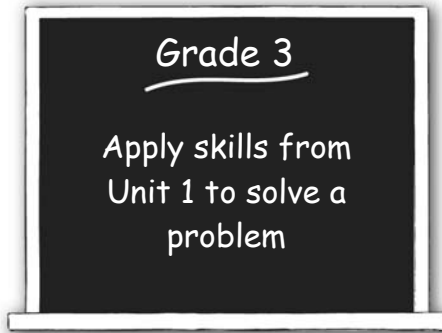
## Lesson Plan

|  |  |
|--|--|
| <p><b>Before/Get Started</b><br/>Review the learning goals for each grade.<br/>Send students to Practice, where they will be answering questions from their Student Books.</p> |  |
| <p><b>Practice</b><br/>Students work on questions from their Student Books.</p>  | <p><b>Practice</b><br/>Students work on questions from their Student Books.</p>      |
| Provide Grade 3 Extra Practice Masters 1.22 – 1.26 (from the CD) as home study aids.   | Provide Grade 4 Extra Practice Masters 1.20 – 1.23 (from the CD) as home study aids. |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**14**



|   |  |
|---|--|
| <b><i>MMS 3</i> Unit 1,<br/>Unit Problem, SE pp. 34-35<br/>It's a Pattern Party!</b>  | <b><i>MMS 4</i> Unit 1,<br/>Unit Problem, SE pp. 30-31<br/>Calendar Patterns</b> |
| Materials and Resources<br>materials for drawing (markers, crayons, coloured pencils), paper cut into strips and large sheets | Materials and Resources<br>blank calendar page (Master 1.17)                     |

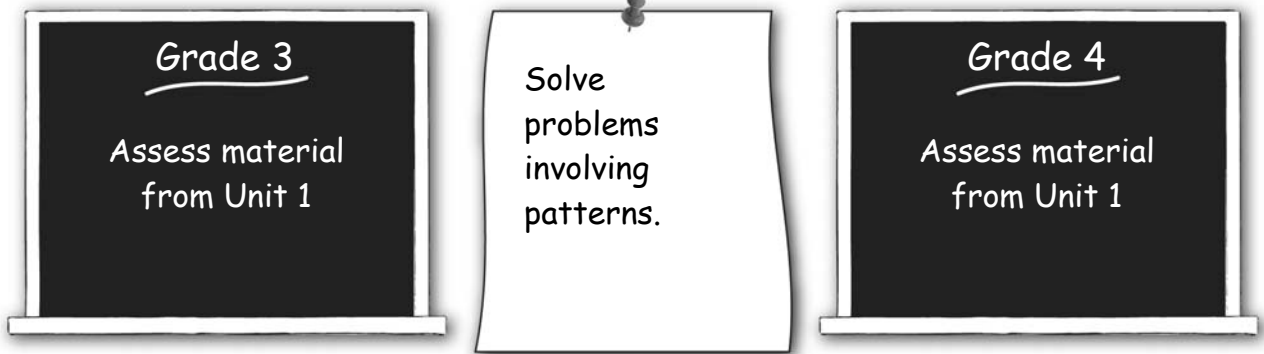
## Lesson Plan

|   |   |
|---|---|
| <b>Before/Get Started</b><br>Have Grade 4s independently read the Unit Problem. Have them answer Reflect on Your Learning, Grade 4 SE page 31.  |   |
| <b>Before/Get Started</b><br>Readress the Unit Launch on Grade 3 SE pages 4-5. Ensure all students understand the Unit Problem. Remind students to use the Checklist on Grade 3 SE page 35 to assess whether their work is complete before handing it in. | Students answer Reflect on Your learning.   |
| <b>Unit Problem</b><br>Students work on the Unit Problem. If students finish early, have them play the game What's the Pattern Rule?, Grade 3 SE page 20.   | <b>Before/Get Started</b><br>Readress the Unit Launch on Grade 4 SE pages 4-5. Ensure all students understand the Unit Problem. Remind students to use the Checklist on Grade 4 SE page 31 to assess whether their work is complete before handing it in. |
|   | <b>Unit Problem</b><br>Students work on the Unit Problem.   |
| <b>Practice:</b> Students answer Reflect on Your Learning, Grade 3 SE page 35.  | <b>Practice:</b> Students can finish answering Reflect on Your Learning, Grade 4 SE page 31.  |

■ Students work independently of teacher.

# Patterns and Equations

**DAY**  
**15**



|   |   |
|---|---|
| <b><i>MMS 3</i> Unit 1,<br/>Unit Test, ProGuide™ pp. 54-57</b>                | <b><i>MMS 4</i> Unit 1,<br/>Unit Test, ProGuide™ pp. 48-50</b>  |
| Materials and Resources<br>Masters 1.20a, 1.20b, 1.20c, 1.20d<br>square tiles | Materials and Resources<br>Masters 1.18a, 1.18b, 1.18c<br>1-cm grid paper (PM 23), Pattern Blocks (PM 28) |

## Lesson Plan

|  |  |
|--|--|
| Practice<br>Students do the Unit Test. | Practice<br>Students do the Unit Test. |
|--|--|

- Students work independently of teacher.

