Math Wizards

Grade 3 Patterning and Algebra

Unit TWO

Name:_____

Ontario Mathematics Curriculum Grades 1 to 8, 1997
Strand: Patterning and Algebra
Grade: 3

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Overall Expectations:
- recognize that patterning results from repetition
- identify, extend, and create linear and non-linear geometric patterns, number and measurement patterns, and patterns in their environment
- create charts to display patterns
- identify relationships between and among patterns

* All specific expectations are covered by this unit with the exception of:
P7:use environmental data to create models of patterns (eg. Monday - sunny, Tuesday - rainy) and display the patterns on a chart which is covered in the daily mathematical routines.

Patterning & Algebra
Daily Centre Activity Record Sheet

Today I completed the centre:_____

I learned . . .	Draw one of your favourite learning moments.
_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ . . . about patterns today.	

Merlin has a Problem!

Grade 3 PAactivity011 covers:
- the centres cover a variety of overall and specific expectations

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Patterning & Algebra
Daily Centre Activity Record Sheet

Today I completed the centre:_____

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_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ . . . about patterns today.	

Merlin has a Problem!

Grade 3 PAactivity011 covers:
- the centres cover a variety of overall and specific expectations

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Patterning & Algebra
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Merlin has a Problem!

Grade 3 PAactivity011 covers:
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Patterning & Algebra
Story Planner for Patterning Picture Book

The pattern in my story will be:

WHO are the characters?	WHAT are they doing?	WHERE are they?	WHEN is it?

The Problem:	The solution:

The Beginning:

The Middle:

The End:

Grade 3 PAactivity012 covers:
P4:discuss the choice of a pattern rule
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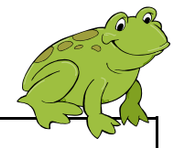
Rough Draft



page 1- picture	text:_____
page 2 - picture	text:_____
page 3 - picture	text:_____
page 4 - picture	text:_____
page 5 - picture	text:_____
page 6 - picture	text:_____
page 7 - picture	text:_____
page 8 - picture	text:_____
page 9 - picture	text:_____

Grade 3 PAactivity013 covers:
P3:create a pattern in which two or more attributes change (eg. size, colour)
P4:discuss the choice of a pattern rule
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Patterning & Algebra
Editor's Checklist

Does your story have

- ☐ a beginning
- ☐ a middle
- ☐ an ending
- ☐ a pattern

What is your pattern rule?

_____

_____

Explain the choice of your pattern rule:

_____

_____

_____

Are your ideas

- ☐ in order
- ☐ clear
- ☐ interesting

I checked my capitals

- ☐ at the beginning of sentences
- ☐ in names
- ☐ in dates

I checked my punctuation for

- ☐ periods (.)
- ☐ question marks (?)
- ☐ exclamation marks (!)

☐ I checked my story for spelling

☐ I reread my WHOLE story after editing it

☐ My pictures give clues to the words and the story

Now you may write your final copy into a roll and slide book.

Grade 3 PAactivity014 covers:
P3:create a pattern in which two or more attributes change (eg. size, colour, position)
P4:discuss the choice of a pattern rule
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Patterning & Algebra
Patterning Booklet Rubric

	Level 1	Level 2	Level 3	Level 4
Understanding of patterning concepts in written story	• Limited understanding of concepts through partially complete and unclear explanations in the story.	• Understanding of concepts is incomplete based on appropriate but inaccurate explanations in the story.	• Solid understanding of concepts through complete and appropriate explanations and procedures in the story.	• Complex and/or thorough understanding of concepts explained throughout the story.
Communication of patterning knowledge through the written story	• Mathematical language is imprecise or inappropriate. • No closure or reference to the original pattern is provided.	• some mathematical language and symbols are used appropriately, but are compromised by errors or vagueness. • closure to the problem is provided, but may be ambiguous or incomplete.	• mathematical language and symbols are used appropriately, no errors of terms. • closure to the pattern is communicated clearly.	• mathematical language and symbols are used purposefully and with elaboration to enhance the story. • strong descriptions of patterns provided, with extensions and/or alternatives.
Communication of patterns in illustrations	• Illustrations are not used to communicate pattern in story.	• Illustrations are communicating some patterns but are incomplete.	• Illustrations are clear, precise and represent the text.	• Illustrations are used purposefully to communicate pattern and enhance the written text.
Application of patterns in illustrations	• Patterns in illustrations include major errors and omissions.	• Patterns are often correct in illustrations but include several minor flaws or errors.	• Patterns are accurate in illustrations with only a few minor errors. • Some additional patterns are provided in illustrations.	• Patterns are accurate in illustrations. • Additional patterns are provided in illustrations and connected to the main pattern in the story.
During the production of the story the student	required assistance	requires some assistance	was independent	was independent
The overall presentation of the story	needs improvement	is satisfactory	is good	is excellent