



Pattern Lesson using the SMART Board

Grade: 4

Subject: Math

Time: 1 hour

Objective:

- To be able to recognize and create patterns based on various attributes.

Description:

I began the lesson by separating the class into small groups and giving each group some manipulatives. They were asked to come up with as many different patterns as they could in 5 minutes and then had to choose one to share with the rest of the class. After each presentation, other groups had to “describe” the pattern and determine which “attribute” was changing. Then we gathered in front of the SMART Board where the class brainstormed what they thought an “attribute” was and what were some attributes that could change in patterns*. For each attribute, I selected a student to create their own pattern representing the changing attribute (ex: colour, shape, size, amount, etc). After learning how to describe a pattern and how to apply a letter model to it, the students were able to practice with the worksheet I had created. To conclude the lesson, I chose some students and lined them up according to a pattern (ex: shirt colour, hair colour, gender, etc). I then asked the rest of the class to figure out what the pattern was, to describe it, state the changing attribute and then give a letter model for it.

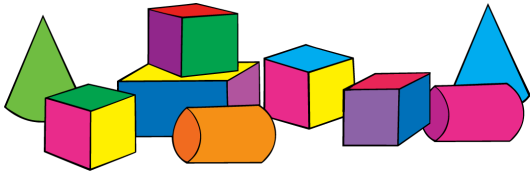
Reflection:

What worked well:	Students were really engaged. They loved coming up with new patterns to show me. Every student participated in some way. I had a lot of fun teaching the students!
What didn't work well:	Some students were too focused on using the SMART Board and they kept asking to use it next instead of paying attention to the questions asked. Towards the end of the lesson, I put a timer on the SMART Board, but some students were focused on counting down the time instead of finishing their work.
Ways to improve:	Next time, I will hide the sidebar that displays the upcoming slides so that the student can't see what is next and they won't ask to write the next pattern. I will also try to stick to the time limit better, instead of using a timer, I will remind the students when they have 10 minutes and 5 minutes left so that they will be able to concentrate on their work without being distracted.

**The slides used for the SMART Board with class brainstorming are provided in the following pages.*



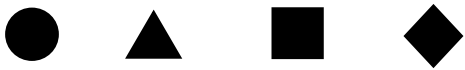
PLAYING WITH PATTERNS



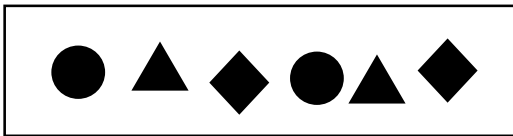
What are some attributes that can change in patterns?

- amount
- color
- shape
- size
- object

Shape



Pattern:



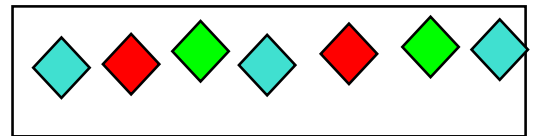
Letter Model:

A B C A B C

Color



Pattern:




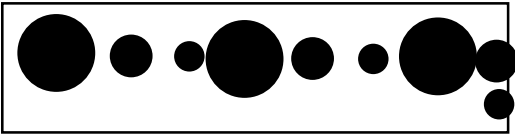
Letter Model:

A B C A B C A B




Size




Pattern: 

Letter Model: A B C A B C A B C

Orientation




Pattern: 


Letter Model: A B A B A B

Name: _____ Date: _____

Playing with Patterns




- a) Draw the next 4 shapes:



b) Describe the pattern: _____

c) Write the changing attribute: _____


d) Write a letter model for it: **C B C B**
- a) Draw the next 4 shapes:



b) Describe the pattern: _____

c) Write the changing attribute: _____

d) Write a letter model for it: _____
- a) Draw the next 4 shapes:



b) Describe the pattern: _____

c) Write the changing attribute: _____

d) Write a letter model for it: _____

Partner work:

- a) Create your own pattern and ask a friend to draw the next 4 shapes:

b) Ask your friend to describe the pattern: _____

c) Ask your friend to write the changing attribute: _____

d) Ask your friend to write a letter model for it: _____


Your friend's name: _____

Vocabulary Words:

<p>Shapes:</p> <ul style="list-style-type: none"> ▲ Triangle ◆ Diamond ■ Square ● Circle 	<p>Colors:</p> <ul style="list-style-type: none"> Black White 	<p>Sizes:</p> <ul style="list-style-type: none"> Small Medium Big 	<p>Attributes:</p> <ul style="list-style-type: none"> Shape Color Size Orientation Amount
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Repeat, continue, ..., and so on, and so forth

EXAMPLE:

Pattern: 

Describe the pattern: Circle, square, square, repeat

Write the changing attribute: Shapes

Write a letter model for it: A B B A B B