

# Kindergarten ages 5-6

30 minutes of

[Math]

This is Kindergarten math taught at a public school. The class size is the perfect 20.

November  
11, 2011

Welcome to Kindergarten!

Our new unit is about patterns. The first type of patterns we will learn about are color patterns. The basic objective is to have students be able to extend and create upon a 2-3 element color patterns.

First, we will read a story called Patterns by Henry Pluckrose. This book is filled with large words that have color patterns in them. During the story as them **learning probe questions** (all learning probe questions are bolded throughout the unit's lesson plans). Such as, what color patterns do you see in the words? When done with the story, ask students what patterns they see in nature? Their home? The classroom? Show and explain to students that a rainbow is a great form of a pattern that is constant in nature.

Go over the main lesson. Make sure to do the AB chant so there is an alternative way for the pattern to be said/explained with the papers. Ask students the learning probe question. For the workbooks, the instructions in the teacher lesson book are very helpful. Pass out practice papers if anyone finishes early. If someone is not fully understanding the pattern concept, give them a strip of paper to extend the patterns on their paper.

If some transitions become a time constraint, save them for center time. At the end of each lesson, I put ideas for centers to connect our math lesson throughout the day.

## Ed Psych Lesson Plan Template (Long Form)

**Student Teacher's Name:** Kelsey Martinez

**Grade Level:** Kindergarten

**Subject:** Math

**Name of Lesson:** Color Patterns

**Period/Time:** 30mins

I. **Goal:** Is to have students be able to create their own color pattern.

II. **Objectives:** Identify and extend 2-3 element color patterns. Given manipulatives, students are able to create their own pattern or copy a pattern.

III. **Materials:** bright colored paper, colored attribute blocks and snap cubes.

IV. **Procedure:**

A. Set / Hook

Read *Pattern* by Henry Pluckrose. (Point out color patterns in the in the story. Ask students **What color pattern do you see in the story?**

**What other color patterns to you see in nature? At home? In the classroom?**  
Explain and show to students that rainbows always come in the same pattern.

B. Transition:

Make sure each table has a group of colored attribute blocks. As a table, have children separate the blocks by color. Hold up a blue block and have children name the color block you are holding up. Then have the students find the blue blocks in the pile. Continue with other colors in the pile.

C. Main lesson:

Paper Patterns. Put a stack of bright colored papers on a table. Ask 5 volunteers to stand up in the front of the class. Give them each a piece of paper while creating a simple, repeating (AB), and colored pattern. Say the pattern aloud and have class

repeat after you. Then have children say what color comes next in the pattern. Pick one student at a time to come up and get a piece of paper to continue the simple pattern. Once everyone has joined have each child say the color they are holding in the pattern one at a time. Also repeat using the AB pattern names.

D. Transition: Ask students **What is the same about the parts of the pattern?**  
Return to seats.

E. Conclusion: Follow the instructions in the teacher lesson book on page 103. Follow the step by step instructions to help the students understand that they need to color in the block that comes next in the pattern, in the box un-colored boxes at the end of the pattern. Do the first pattern together as a class and have a volunteer explain why they colored the next block the color they did.

**V. Assessment:** Give students snap cubes. Ask students to create a simple pattern. Or give students a pre-made stick of snap cubes and have them extend the pattern.

## **VI. Assignment:**

\***Centers** during this pattern unit need to include all examples of the pattern that day.

Ex. For color patters; put out snap cubes, colored beads (same size & shape) so students can make their own necklace.

\*Paint a Rainbow center- to extend on the rainbow pattern discussed earlier in class.

\*Also as a class, make a paper chain countdown to Christmas using the AAB pattern. Paper chains can also be a center and a challenge to see who can make the longest one. Or you could make a pattern you add to by counting up to the 100<sup>th</sup> day of school.

The second type of patterns we will learn about are shape patterns. The basic objective is to have students be able to extend and create upon a 2-3 element shape patterns.

To start off we will play a guessing game on which object comes next in the pattern, that is hiding under the cup. Repeat several times and at the end of the lesson you can do it again but on a more difficult level. Ask the learning probe to see how they made their inferences. The students have a concept of color patterns so it will be interesting to see how the gain in knowledge in color patterns will carry over to shapes.

The main lesson today is very hands on with magnets for each student to replicate the pattern you create. Switch up the shapes so they are not the basic square, circle and so on. If a student is having difficult time saying the shape quickly make sure to re-iterate the AB AAB pattern sayings.

Follow up with the workbook assignment and use the computer area in the classroom as a center. Have each student make their own shapes to create a pattern. Other centers should include different shape items like buttons and tiles. Also using different shapes with their bodies is fun and a great way to get them moving. Each Head, Shoulder, Knees and Toes actions should be done by each student to create a four element pattern.

## Ed Psych Lesson Plan Template (Long Form)

**Student Teacher's Name:** Kelsey Martinez

**Grade Level:** Kindergarten

**Subject:** Math

**Name of Lesson:** Shape Patterns

**Period/Time:** 30mins

I. **Goal:** Have students identify different shapes in order to put them into a pattern.

II. **Objectives:** Identify and extend 2-3 element shape patterns.

III. **Materials:** pasta, bean, button (either can be substituted for something else) and a paper cup. Individual magnetic-white boards for each child. Shaped magnets (circle, square, triangle, star). And a set of magnets for yourself.

IV. **Procedure:**

A. Set / Hook

Create a pattern with the items above (bean, pasta, button) cover up the last object in the pattern with the paper cup. Have students guess which object is underneath. Repeat this several times. Ask students **When you see a pattern how do you decide which shape comes next?**

B. Transition

Put a pattern up on the board with the magnets. Then pass out white boards and magnets.

C. Main lesson

Have students replicate the pattern on the boards. As a class, point to each shape and say its name out loud. Make sure to chant the pattern. Introduce other shapes to grab their attention such as a lady bug and a flower. Give students time to extend the pattern themselves. Introduce the fact that instead of saying the name of the shape students can

also say AB or AAB or ABB, whichever the pattern structure is. Make sure to say this aloud as a class, as a chant.

#### D. Transition

Put away materials and get out workbooks.

#### E. Conclusion

Follow the instructions in the teacher lesson book on page 107. Follow the step by step instructions to help the students understand that they need to draw the next shape in the pattern, in the box at the end of the pattern. Do the first pattern together as a class and have a volunteer explain why they drew the shape they drew in the box.

**V. Assessment:** Go to the computer lab at school and show students how to create shapes or by using a series of letters, to create patterns.

#### VI. Assignment:

\*Centers could include a box of leaves or a box filled with buttons/tiles. Have students create their own patterns with different shapes.

\* Doing Head, Shoulders, Knees and Toes as a class is a great way to get them active and explain to them that their bodies are making different shapes. You could even have each student just be in the heads position, the next doing shoulders, the next doing knees and the next doing toes and the next doing heads...and so on.

Last but not least we will learn about size patterns. Just like the previous lesson the basic objective is to have students be able to extend and create upon a 2-3 element size patterns.

To start off ask a student for one of their shoes and remove one of your shoes too (they will love it). Ask the students what is the differences between the shoes.

Stress the size of each shoe and play a little game of you holding up a shoe and them telling you what the size is big/small.

Next grab some volunteers instruct students to either squat/stand and emphasise your BIG voice and small voice. One by one call each student up to continue the big/small pattern. Ask the students the learning probe question. Then proceed to workbooks.

As a class, brainstorm other big/small words besides big/small. This helps them create another connection with another word. Have students draw their own big/small pattern.

Another fun thing to do is line up big/small when you leave/enter classroom(s). Make sure centers have big/small items.



## Ed Psych Lesson Plan Template (Long Form)

**Student Teacher's Name:** Kelsey Martinez

**Grade Level:** Kindergarten

**Subject:** Math

**Name of Lesson:** Size Patterns

**Period/Time:** 30mins

**I. Goal:** Size patterns. Students will be able to tell when a pattern is patterned by size.

**II. Objectives:** Identify and extend 2-3 element size patterns. Given large and small size blocks, the student can create a size pattern.

**III. Materials:** butcher paper, 8 ½ by 11 paper, centers

### **IV. Procedure:**

#### **A. Set / Hook**

Display 2 sizes of shoes (ask a student to take their shoe off) and compare it to your own shoe. Ask students: **What is the difference between the student's shoe and my shoe?** Lift up one shoe and have the students say out loud, large or small and repeat.

#### **B. Transition**

Pick about 5 students and have them come to the front of the class.

#### **C. Main lesson**

Tell the 5 students to line up. Have students line up and figure out together how to make a (big/small) size pattern. The class can interject to help out. Make a stand/squat/stand/squat pattern. Say the pattern aloud with the class, using a BIG voice and a small voice, as you go down the line. Call upon students one at a time, to continue the pattern until the whole class has joined in.

-Have students gather at the front of the room on the floor.

Get both the butcher paper and normal sized paper. Each child should have their own papers. Start by taping the paper on the board in the big/small pattern. Ask students: **How do you know what comes next in the pattern?**

D. Transition: Have students sit back down in their desks and get out their workbooks.

E. Conclusion: Follow the instructions in the teacher lesson book on page 111. Follow the step by step instructions to help the students understand that they need to draw the next size of the shape in the pattern, in the box at the end of the pattern. Do the first pattern together as a class and have a volunteer explain why they drew the size of the shape they drew in the box.

**V. Assessment:** Think of BIG words and small words to describe patterns and write them on the board. These extra words will help with learning the big/small pattern. Have students draw their own big/small pattern.

**VI. Assignment:** Doing a big/small pattern every time you line up in class makes learning about the patten sequence fun and gets their bodies involved too.

\*Centers can be a table with BIG dry noodles and small noodles (but not too small to choke on!) Have them make a macaroni necklace.

\*You can have the whole class play follow the leader and doing alternative BIG motions (steps, hops or jumps) and then small motions too.