

Patterns Invitation- Kindergarten

Opening Section:

Grade: Kindergarten

Main Outcome: PK.1 Demonstrate an understanding of repeating patterns (two or three elements) by:

- identifying
- reproducing
- extending
- Creating

patterns using manipulatives, sounds, and actions.

I Can Statement (for outcome): I can identify and create a repeating pattern.

Essential Question: How can I create/demonstrate repeating patterns by using a variety of different materials?

Main Indicator: b) Copy a repeating pattern (e.g., action, sound, colour, size, shape, or orientation) and describe the pattern.

I Can Statement (for indicator): I can describe a repeating pattern. (Ex: A, B, A, B)

Experience Description:

Description: This experience will allow children to explore and learn about patterns. There will be a variety of both natural materials (such as rocks and sticks), as well as other non-natural materials found in the classroom. The materials will be sorted into baskets so that children can easily view and choose which ones they would like to use to make their patterns with. There will be pattern cards on the bulletin board to remind them of the different types of patterns (Example: AB, AABB, ABB, ABC and so on) but they are also free to make up their own patterns. The materials will allow for them to make colour patterns, shape patterns, and size patterns. The concept is pretty open and allows for lots of exploration and creation. With the educator's permission, children can take a photo of the patterns that they created and post them on Seesaw for their family to see.

Materials: The material options truly are endless for this invitation, feel free to use whatever would be most accessible for your classroom. The quantity depends on how many children will be at the station. My station will have 2-3 students at it, so I will have enough of each of these materials to fill a small basket. I am using the following materials:

- Rocks
- Small twigs
- Pinecones
- Plastic cubes
- Wooden shapes
- Popsicle sticks (the coloured ones)
- Pom-Poms (variety of shapes and colours)
- *Monster Knows Patterns* book
- *Pitter Pattern* book
- *Pattern Fish* book
- *ABABA: A Book of Pattern Play* book

Additional Outcomes/Indicators:

CPK.2 j) Focus attention on your own work, while respecting others, during parallel play and imaginary journeys. (Arts Education)

CPK.4 j) Observe and identify the concepts of big and small. (Arts Education)

CRK.3 d) Follow simple directions correctly and independently (e.g. Please put away your crayons and put your picture on the shelf.) and remember instructions given earlier. (English Language Arts)

CCK.1 d) Explore ideas and information to make sense of experiences. (English Language Arts)

MOK.1 d) Identify observable characteristics of materials, such as colour, texture, and odour, and observable characteristics of objects, such as shape, size, and weight. (Science)

MOK.1 f) Sequence or group objects and materials according to one or more student-selected criteria (e.g., arrange a set of wooden blocks from largest to smallest). (Science)

Space and Time Considerations:

This experience will be arranged on a table, where children will have the option to sit or stand. This activity can also be done on the ground if the children would prefer to sit on the carpet area or on a cushion. I will have the materials arranged in baskets so that the students have lots of table space for working. The baskets allow for them to easily see their options for materials, and it also makes for an easier clean up. Putting the materials back into the baskets is also beneficial for the children to develop sorting skills. This area is designed to be a centre station where children can choose to visit during free time or play time. This is a fairly open-ended activity where the students can explore at their own pace. It is designed for about 2-3 students, or however many can fit around the table without it feeling cramped. A timer may be set if

lots of children would like a turn at this station. It would be best if the table was off to the side, perhaps in a quiet corner, so that the students can focus on their work a little bit better. I have the “*Monster Knows Patterns*” book on a shelf, along with a stuffed monster toy. Students can flip through the book (most kindergarten students will not be able to read) and identify the patterns with the help of their stuffed monster friend. There are also a few other books about patterns set up around the room for children to enjoy during “book look” time. This can be done on the carpet or at the table.

Images of the Invitation: Please note that I was unable to find transparent photos of the pompoms, popsicle sticks, and a few other materials that I have listed above.



Instructions or Prompts for Teacher or Students: There are no specific instructions in regards to which materials the students use, or how they use them. They are free to mix and match the materials as they please. The only instruction is that they need to create a repeating pattern. In order to guide the students or keep them on task, I will include the “I can” statement: “I can make a repeating pattern,” on a bulletin board above the work space, along with some pattern suggestions, as mentioned above in the experience description. I would also place the “*Pattern Fish*” book on the table for them to look through if they would like. This centre is designed for 2-3 students, however, it can be done as an entire class at their desks if time and materials permit.

Book Resources:

- *Monster Knows Patterns* by Lori Capote

This book discusses a variety of patterns such as numbers, big/small, stripes/spots, up/down, etc. This helps to show children how every pattern can be different and that there are a lot of variables that can contribute to a pattern.

Link to read aloud version: <https://www.youtube.com/watch?v=XmQUkuik2I>

- *ABABA: A Book of Pattern Play* by Brian P. Cleary

This book also shows lots of great examples of different kinds of patterns, and how we may see patterns on clothes, outdoors, in public, etc.

Link to read aloud version: <https://www.youtube.com/watch?v=qZxR89eK4IM>

- *Pitter Pattern* by Joyce Hesselberth

This book explains how patterns can also be sounds and movements, not just colours, numbers and sizes.

Link to read aloud version: <https://www.youtube.com/watch?v=V0cwn31o1DI>

- *Pattern Fish* by Trudy Harris

This book is perfect for kindergarten students as it is fairly simple and straightforward. It demonstrates a mixture of sound and movement patterns as well as colour patterns.

Link to read aloud version: https://www.youtube.com/watch?v=7_mqVCewsYA

Web Resources:

- This is a possible student resource, however a tablet or computer will have to be available for use. This is a free, online game where students can make shape patterns. A repeating pattern is given but there is always a shape or two missing. The students then choose the correct shape and drag it into its correct spot in the pattern.
https://www.abcya.com/games/shape_patterns

- These are some great ways to put a fun twist on creating patterns! The robot patterns are fun and may help in sparking the children's interest to go see the invitation station.
<https://www.pinterest.ca/pin/10485011622418539/>
- Here is a fun song for practicing patterns. This would be a good song to use as a unit launch to get children excited to learn about patterns. The song also incorporates some rhyming which makes it even more fun!
<https://www.youtube.com/watch?v=MBjixSx45-Q>
- This is a good article to perhaps post on SeeSaw for parents to see what we are learning about at school. It also provides some information on the different types of patterns.
<https://www.greatschools.org/gk/articles/cool-ways-to-teach-your-preschooler-about-patterns/>
- Another good pattern song to play for children. These videos are also good to help children learn the names of different shapes and colours.
<https://www.youtube.com/watch?v=Lh3twupv17M>

Field Trip: A simple and budget-friendly field trip for this invitation would be to go on a walk around the community. There are lots of opportunities to find patterns in nature, as well as at a playground if there is one nearby your school or learning centre. Playgrounds are often colourful and offer opportunities to find patterns (Example: the monkey bars go “monkey bar, space, monkey bar, space, ...”). For children who do not wish to play on the playground, they can find natural materials (sticks, rocks, etc) nearby to create or point out patterns. Another alternative could be to bring sidewalk chalk with you to the play area for children to draw their own patterns using shapes, numbers, and colours. They can also draw a hopscotch pattern on the ground, which doubles as a game and as an educational moment!