

Identify Shapes and Patterns

The natural world is a great place to teach basic math skills like pattern and shape recognition. Look for them on the schoolyard or use natural materials to create them inside or outside!

AGES: 1st grade

INTENDED OUTCOMES: Head, Feet

SUGGESTED SUPPLIES:

- Laminated examples of patterns (1,2,1,2 or ABBABBA, etc.) and shapes (squares, circles, triangles, etc.)

Suggested steps and/or focus for each grade level*:

ALL GRADES

- Print out and laminate examples of patterns and shapes such as squares, circles, etc. Examples of patterns include:
 - big, small, big, small
 - small, medium, big, small, medium, big
 - red flower, yellow flower, red flower, yellow flower
- Introduce the idea of patterns and shapes to students in the classroom using the examples you have printed. Can they find more examples around the classroom?
- Once outside, give each student or pair of students a pattern or shape to find in nature. You can have them sit down or put their hands up when they have found it so that they can show it to you. Remind them that this activity is not about picking leaves or flowers off of plants to arrange into patterns, but finding the patterns that are already there, waiting to be discovered.
- Once they have found one, give them another!
- You can also set this up so that the whole class can come see what each individual or pair has found. Give them a cone or something to mark their place. Once everyone has found something, collect the class and do a “gallery tour,” visiting every spot so that the individuals or pairs can share what they found there.

TIPS AND TRICKS

- Instead of printing out patterns and shapes, use blocks or any other math manipulatives or tools you already have to demonstrate this topic.
- To really create connection to nature, encourage exploration. Especially if students find their pattern or shape easily, ask them to find it again, but this time in a different part of the yard, or on a smaller scale. How about by those bushes over there?

- Try the reverse activity! Collect seeds, pinecones, pebbles, twigs, shells, acorns, etc. and use these to create patterns in the classroom or outside on the yard. Students can glue them down to a piece of paper or simply arrange and rearrange so that they can be used multiple times (and be left in the environment where they were found).



Relevant Standards

MA10-GR.1-S.4- GLE.1