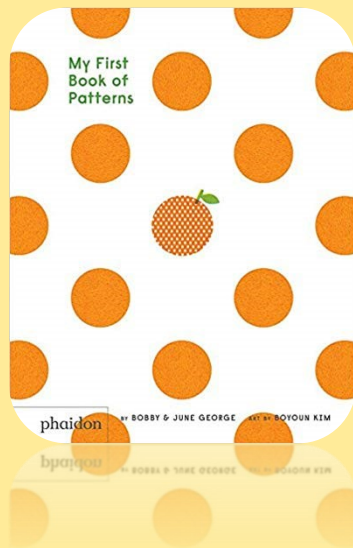


Primary tasks

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Patterns ~ visual spatial ~ additive and multiplicative relationships

My First Book of Patterns by Bobby and June George



Before Reading

On first glance this seems a very primary early learning board book ~ prepare for a grand surprise. It is a visual-spatial extravaganza !

Stripes, polka dots, plaid, chevron, argyle and more are featured in this brilliant pattern concept book that provides children with the vocabulary to name what they see in the world around them. The ten most prevalent patterns are presented first as a single element (*This is a circle ...*), then as a pattern (*... a lot of circles make polka dots!*)

The ability to see, describe, compare and generalize patterns is essential for mathematical thinking in algebra and other mathematical topics. Children will swiftly make connections and see relationships in this delightful text.

During Reading

Discuss the mathematical **big ideas** of order and regularity.

Does anyone have stripes, plaid, checks or polka dots on their clothing today?

Fabric samples and textiles would be lovely here to introduce chevron, argyle, honeycomb and paisley patterns.

Infusing the math talk of patterns into the story. Terms such as core, term, attribute, repeat, increase and decrease.

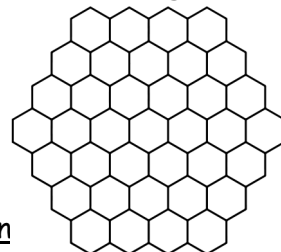


After Reading

Geometric patterning tasks to try:

- ◆ Use square tiles to create a growing pattern. Represent the same pattern again but use an action this time. (i.e. *clap (pause), clap, clap, clap (pause), clap, clap, clap, clap (pause)*)
- ◆ Inquiry: What patterns can you make using just one colour of unifix cube? (one child shows an up-down, up-down pattern (a pattern of height: e.g., one-two, one-two) , another child shows a standing cube/lying down cube, standing cube/lying-down cube pattern & another child rotates the cube showing a squarer-rhombus-square-rhombus pattern)
- ◆ What patterns do you see on one another's clothing?
- ◆ Where might you see a shrinking pattern in everyday life? (i.e toy rings, dartboard)
- ◆ Other playful patterning explorations might be emojis, short dances and movement embodying patterns

Marian Small's Open Questions for the 3 Part lesson



K-3 pg. 86-89