

#### **AUTHOR:**

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#### **ILLUSTRATOR:**

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Explore color, shape, sound, and motion patterns in this sea-inspired story. Look for patterns as seahorse, eel, puffer fish, jellyfish, octopus, and fish swim, slip, eat, blow bubbles, glide, and wiggle-jiggle-jiggle-float their way through the ocean.

Ages: 3 to 6 years

## ATOS Reading Level:

2.5

Lexile: 500L

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# **Pattern Fish**

Splash-turn-swish-dive, splash-turn-swish-dive... Why did everyone swim away?

**Topics:** patterns, pattern recognition

### **Activities To Do Together:**

Patterns help make sense of the world because they follow a rule that allows us to predict what comes next. Patterns appear everywhere. Look for patterns with your child in math, movement, sound, poetry, nature, time, moon phases, seasons, and architecture. Encourage your child to identify patterns and predict what will come next according to the pattern's rule. Square, square, triangle, square, square, triangle....What comes next?

Before you read Pattern Fish with your child:

 Find a piece of clothing with a pattern. Ask your child to describe what they see. For example, they may say that they see a red stripe, blue stripe, red stripe, blue stripe. Cover up a portion of the design and encourage your child to predict what's underneath. Ask them to tell you why they think so.

### While reading the book:

 After you read the first pages of the book, pause and encourage your child to identify the different places they see AB patterns. AB Patterns have two parts that alternate with each other, ABABAB...such as shark, fish, shark, fish, shark, fish... Encourage your child to make and describe an AB pattern of their own before you continue reading.

When you finish reading the story:

- Encourage your child to find examples of AB, ABC, AAB, and ABB patterns.
- Write pattern descriptions (AB, AAB, ABB, ABC, and ABCD) each on its own slip of paper. Turn the slips of paper upside down. Select a slip of paper and make a sound pattern for the pattern written on the paper. For example, if your child turns over an ABC pattern, they could make this sound pattern, snap, clap, tap, snap, clap, tap...
- Suggest that your child design a fish with a distinctive pattern. Ask your child how the pattern will be shown in the appearance, movement, behavior, and habitat of the fish.

#### DISCOVERING THE MATH: BOOK GUIDE

#### **Questions for Mathematical Thinking:**

- 1. What types of patterns have you noticed? Where have you noticed them?
- 2. Can you make a pattern by clapping, snapping, stomping, or tapping? What does your pattern sound like? How would you describe it?
- 3. Open the book *Pattern Fish* to any page. What type of pattern do you notice on the page? What are some of the different ways the pattern is shown?

## **Early Math Project Resources:**

Visit <u>Pattern Fish Activities</u> (www.earlymathca.org/pattern-fish)

Follow this <u>link</u> or visit earlymathca.org/external-resources for additional online resources

#### **Vocabulary**

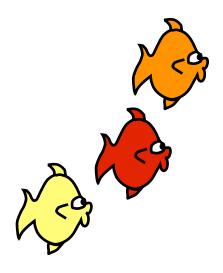
Math words found in the story: AAB Pattern, AB pattern, ABB Pattern, ABC pattern, in, on, pattern, top, underneath, underwater

**Related math words:** predict, repeat

Words to build reading comprehension: eel, jellyfish, murky, puffer fish

Related Books: Pattern Bugs by Trudy Harris; The Napping House by Audrey Wood and Don Wood; Beep Beep, Vroom Vroom! by Stuart J. Murphy

Click this link to the World Catalog or enter bit.ly/4aqNTnZ to find Pattern Fish in the public library.



#### DISCOVERING THE MATH: BOOK GUIDE

#### **Math Connections:**

The book, *Pattern Fish*, can be used to explore the concept of patterns and different types of patterns.

When talking about patterns with your child, look for sounds, designs, or movements that occur over and over. Look for the green light, yellow light, red light sequence that happens when you stop at a traffic light. Listen for the tick-tock sound made by a clock, or notice the stripes on a shirt. These are all examples of patterns.

Talk about how a pattern occurs when something repeats over and over in a predictable way. Have fun making patterns of your own. Draw a picture pattern, make sound patterns, make movement patterns. Identify the repeating part of different patterns. Find patterns that are made up of two different things, three different things, and four different things. Go on a pattern hunt!

Your child may enjoy the challenge of making different patterns with objects, movements, or sound. They might make:

AB patterns at snack time

Pretzel, Grape, Pretzel, Grape, Pretzel, Grape...

· ABC patterns outside

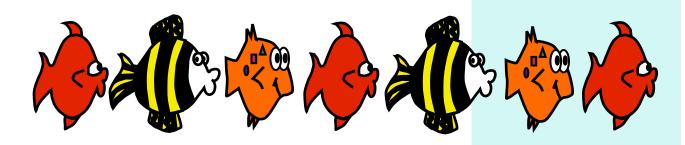
Stick, Pebble, Leaf, Stick, Pebble, Leaf, Stick, Pebble, Leaf,...

AAB patterns with movements

Clap, Clap, Hop, Clap, Clap, Hop, Clap, Clap, Hop...

ABB Patterns with sound

Stomp, Clap, Clap, Stomp, Clap, Clap, Stomp, Clap, Clap...



# DISCOVERING THE MATH: BOOK GUIDE

Age Level	Related <u>Preschool Foundations</u> and <u>CA</u> <u>State Standards</u>
Preschool/ TK	Algebra and Functions 2.0 Children begin to recognize simple, repeating patterns. 2.1 Begin to identify or recognize a simple repeating pattern. 2.2 Begin to create a simple repeating pattern or participate in making one.
Kindergarten	Standards for Mathematical Practice: 7. Look for and make use of structure
Grade 1	Standards for Mathematical Practice: 7. Look for and make use of structure