Patterns and Categorizing

Even our youngest children are able to recognize patterns and use categories to process new information. Almost everything we see, hear, or touch contains details that our brain processes. Without realizing it, our brain is looking for what is new, what is different, and what has changed. New information is matched to a category that already exists in our mind.

This need to find order, to compare and contrast, and to pay attention to what remains the same is an important part of early learning. As your child becomes a reader, he or she will learn to find patterns in letters and words and use this information to read groups of words (for example, sun, fun, bun all contain the ‘–un’ letter pattern or family). Your reader will also categorize words by sounds (for example short/long vowel words, rhyming/non rhyming words) or by meaning (for example words that mean the same thing, or words that are opposites).

Parents and caregivers can build pattern recognition and categorization skills in science and math through these simple activities:

- **Sort it:** Provide lots of opportunities to explore many kinds of materials that can be sorted and categorized by size or shape. These include small plastic toys such as animals and vehicles, Unifix cubes (or other “manipulatives”), blocks, or other small objects such as coins, stamps, cups, and bottle caps. Have children explore different ways to sort objects into similar groups. The groups, or categories, could be general concepts such as “hard things” “soft things” or something personal, such as “things that were gifts,” or “things I found.”

- **Same and different:** Help your child learn about different classifications scientists use to help them organize information. Use children’s books from the library to learn more about different classifications of animals, for example, mammals, and reptiles. Discuss what reptiles and mammals have in common, and what makes each unique.

- **Riddle me this:** Use riddles to help your child gain practice with “rules,” which are part of patterns and categorizing. For example, “I am a shape. I have four sides. Each side is the same length.” Good listening and a growing ability to sort through information will help your child solve the riddle correctly.

- **Make a mini grocery store:** Save your food boxes and juice containers for a few days, then enlist your child to stock the shelves. Designate one area for grains, another for dairy, and another for proteins. Have your child sort the objects into the correct location. This is a great opportunity to talk about healthy food choices.

Patterns, categories, and classifications are a part of everyday life and everyday learning. Use these ideas to help jump-start conversations with your young learner.
Literacy in the Sciences: Patterns and Categorizing

Recommended children’s books

**Five Creatures**
By Emily Jenkins

A charming story about a family of five: three people and two cats. The little girl in the story classifies every member according to their likes and dislikes, appearance, skills, and habits. One example: “Four who like to eat fish... two who like to eat mice. Only one who likes to eat beets.” (Ages 4-8)

**Same Same**
By Marthe Jocelyn

On each spread, simple painted paper cuts depict trios of similar objects in bold primary colors. The book begins with “round things” (red apple, the Earth, tambourine) and a page turn connects these items to “things that make music” (tambourine, guitar, bird). The bird is connected to the next set of “things that fly” and so on until the reader is brought full circle by linking the last set of objects (“red things”) back to the first (the apple). (Ages 4-8)

**Tree of Life: The Incredible Biodiversity of Life on Earth**
By Rochelle Strauss

A dazzlingly illustrated and child-friendly introduction to the complex topic of biodiversity and classification, and how all living things, from bacteria to the largest mammals, are related. The book provides detailed information about each of the “five kingdoms” and the different species that make up each kingdom. (Ages 6-12)

**The Vegetables We Eat**
By Gail Gibbons

Glossy red peppers, lush leafy greens, plump orange pumpkins, and delectable little peas: vegetables come in many shapes, sizes, and colors. This lush picture book introduces kids to the eight different kinds of vegetables, how to plant the different varieties, and what parts are good to eat. (Ages 4-8)