

Your child can generate a number or shape pattern that follows a given rule. Your child can identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Your child can explain informally why the numbers will continue to alternate in this way.

- Practice with patterns involving numbers or symbols which either repeat or grow.
- Create and extend number and shape patterns.

### HELP AT HOME

- ▶ Provide your child with a sheet of patterns already drawn or written. Then, provide him with graph paper. Have him extend each pattern by the next 5 shapes or numbers.

### VOCABULARY

A **PATTERN** is a sequence that repeats the same process over and over.

A **RULE** dictates what that process will look like.

Patterns are one of the most important ways to develop a student's mathematical thinking process.

When he begins seeing patterns, sequences, and order in equations, he will have a stronger understanding of how to answer mathematical problems.

