

Math Live – *Patterns*: Parent Notes

Grade: 4 **Strand:** Patterns and Relations (Patterns) **Outcome:** 1, 2, 3, 4

What students should be able to do?

Identify patterns and, using everyday language, describe how they develop. Organize information into charts to see how patterns develop. See patterns in various objects such as tiles and blocks.

Common mistakes students make:

Errors in basic facts (addition, multiplication, etc.), reduce the student's chance of seeing the pattern. Many patterns use a combination of operations; however, it is common amongst students to use only one function (i.e., addition every time). Students will fail to see the pattern if they do not consider the possibility of more than one function within that pattern. Students may also make the mistake of focusing on the beginning of the pattern only. There is some risk in this, as the pattern may not fully reveal itself by looking at only the first two or three symbols or indicators.

Ideas for more practice:

Look for and describe patterns with your student, like those found in clothing, buildings, advertisements, and so on. Have your student find incomplete patterns and describe how the pattern would continue. Start a pattern using common materials (buttons, etc.) and have your student continue the pattern.

Literature Links:

Pluckrose, *Pattern* – This book is a wonderful example of patterns within the real world. It provides a starting point for exploring the patterns in the world around us.

Anno & Anno, *Anno's Mysterious Multiplying Jar* – This book is about a magical jar that contains a sea and in that sea there is an island. On the island there are two mountains and on each mountain there are three countries; the story extends from here. There are many connections to the real world that can be made through this story.

Anno, *Anno's Magic Seeds* – There are patterns throughout this book that become increasingly more complex as the story evolves. It is a great way to explore growing patterns. There are many extension activities that accompany this resource.