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| **Subject:** | Math |
| **Title:** | Extending Patterns |
| **Grade Level:** | 2 |
| **Purpose:** | To be able to identify and extend patterns. |
| **Curricular**  **Connections:** | * Demonstrate an understanding of repeating patterns (three to five elements) by describing and extending patterns using manipulatives, diagrams, sounds and actions. |
| **Materials:** | * Pre-laminated set of pattern strips and Puckster characters (make enough copies so class can work in pairs) * Dry erase markers/dry erase crayons and cleaning cloth * Chartpaper/board and marker |
| **Activity:** | 1. Review what a pattern is. 2. Draw a pattern on the board. Add some blank lines at the end. Ask: what part of this pattern repeats? Circle the repeating part. Explain that the part of a pattern that repeats is called the ‘core’ of the pattern. Have students say pattern. A**sk:** what comes next? Draw correct response on the lines. **Ask:** how do you know? Explain, when you solve what needs to come next and add it to a pattern you are **extending a pattern**. 3. Model a sound pattern. **Ask students:** What is the core of this pattern? What comes next? 4. Repeat step 3, this time with an action pattern. 5. Give each pair of students a set of pattern strips, Puckster characters, and a dry erase marker. Tell students they need to circle the core of each pattern and extend each pattern by solving which character(s) come next. 6. Gather students and have them share their experiences. |
| **Extension:** | 1. Students create their own patterns using manipulatives . They circle the core of, and extend, a classmate’s pattern. |
| **Assessment:** | 1. Teacher circulates during activity, providing extra support where needed. 2. Performance task: Teacher creates a pattern using manipulatives. Students tell teacher what the core is, then extends the pattern. |

**Extending Patterns**

**What character comes next?**

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| **Manny.jpg** | **Puckster 1.jpg** | **Sarah.jpg** | **Manny.jpg** | **Puckster 1.jpg** | **Sarah.jpg** |  |

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| **Francois.jpg** | **Charlie.jpg** | **Sarah.jpg** | **Sarah.jpg** | **Francois.jpg** | **Charlie.jpg** | **Sarah.jpg** |
| **Sarah.jpg** | **Francois.jpg** | **Charlie.jpg** |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| **Yuan.jpg** | **Manny.jpg** | **Puckster 1.jpg** | **Sarah.jpg** | **Yuan.jpg** | **Yuan.jpg** | **Manny.jpg** |
| **Puckster 1.jpg** | **Sarah.jpg** | **Yuan.jpg** | **Yuan.jpg** |  |  |  |

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| **Charlie.jpg** | **Sarah.jpg** | **Sarah.jpg** | **Francois.jpg** | **Puckster 1.jpg** | **Manny.jpg** | **Charlie.jpg** |
| **Sarah.jpg** | **Sarah.jpg** | **Francois.jpg** | **Puckster 1.jpg** |  |  |  |

**Puckster Characters**

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|  |  | **Puckster 1.jpg** | **Puckster 1.jpg** | **Puckster 1.jpg** | **Puckster 1.jpg** | **Puckster 1.jpg** |
| **Puckster 1.jpg** | **Puckster 1.jpg** | **Puckster 1.jpg** | **Puckster 1.jpg** | **Yuan.jpg** | **Yuan.jpg** | **Yuan.jpg** |
| **Yuan.jpg** | **Yuan.jpg** | **Yuan.jpg** | **Yuan.jpg** | **Yuan.jpg** | **Yuan.jpg** | **Manny.jpg** |
| **Manny.jpg** | **Manny.jpg** | **Manny.jpg** | **Manny.jpg** | Manny.jpg | **Manny.jpg** | **Manny.jpg** |
| **Manny.jpg** | **Francois.jpg** | **Francois.jpg** | **Francois.jpg** | **Francois.jpg** | **Francois.jpg** | **Francois.jpg** |
| **Francois.jpg** | **Francois.jpg** | **Francois.jpg** | **Charlie.jpg** | **Charlie.jpg** | **Charlie.jpg** | **Charlie.jpg** |
| **Charlie.jpg** | **Charlie.jpg** | **Charlie.jpg** | **Charlie.jpg** | **Charlie.jpg** | **Sarah.jpg** | **Sarah.jpg** |
| **Sarah.jpg** | **Sarah.jpg** | **Sarah.jpg** | **Sarah.jpg** | **Sarah.jpg** | **Sarah.jpg** | **Sarah.jpg** |