

1st Grade Lesson Plan: Recognizing Patterns with AI Voice Assistant

Common Core State Standards (CCSS) Alignment:

- **CCSS.MATH.CONTENT.1.OA.C.5:** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
 - **CCSS.MATH.CONTENT.1.OA.D.8:** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.
 - **CCSS.MATH.CONTENT.1.MD.C.4:** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points.
 - **CCSS.MATH.PRACTICE.MP7:** Look for and make use of structure (recognizing and analyzing patterns).
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Lesson Title: Recognizing Patterns with AI Voice Assistant

Objective:

By the end of this lesson, students will be able to:

1. Identify and describe repeating patterns using shapes, colors, and numbers.
 2. Predict the next item in a pattern sequence.
 3. Understand how AI voice assistants recognize and use patterns to provide helpful information.
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Materials Needed:

- ✓ Device with access to the **Elementary School AI Voice Assistant**
 - ✓ Pattern cards with different shapes, colors, and numbers (printed or digital)
 - ✓ Interactive whiteboard or projector
 - ✓ Small objects (blocks, beads, or counters) for hands-on activities
 - ✓ Chart paper and markers
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Lesson Structure:

1. Introduction (10 minutes)



Teacher-Led Discussion:

- Begin by asking: *“Have you ever talked to a voice assistant like Siri or Alexa?”*
 - Explain that these smart helpers **listen to patterns in our voices** and understand what we need based on words and phrases.
 - Show examples of **patterns in real life**:
 - Red, blue, red, blue (color pattern).
 - Circle, square, circle, square (shape pattern).
 - 2, 4, 6, 8... (number pattern).
 - Ask students to **guess what comes next** in each pattern.
 - Introduce the idea that **AI voice assistants also recognize and use patterns** to help us.
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2. Activity (15 minutes)



Part 1: Talking to the AI Voice Assistant

- Open the **Elementary School AI Voice Assistant** on a device.
- Ask the AI: *“What is a pattern?”* and let it explain in simple terms.
- Try asking, *“Can you give me a number pattern?”* and let students guess the missing number.
- Let students take turns asking the AI to generate different types of patterns (shapes, colors, numbers).



Part 2: Hands-on Pattern Recognition

- Show a pattern on the board (e.g., ●●●●●).
The pattern consists of four colored circles: blue, red, blue, red, followed by a blank space.
 - Ask students: *“What comes next? How do you know?”*
 - Provide **pattern cards** and have students work in pairs to complete or create their own patterns.
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3. Discussion & Reflection (10 minutes)

Guided Class Discussion:

- Ask students: *"Where do we see patterns in real life?"* (e.g., seasons, music beats, traffic lights).
- Discuss how AI **helps recognize patterns in our voices** to:
 - Understand spoken words.
 - Predict what we might ask next.
 - Help us solve problems, like math patterns!

Closing Activity:

- Have students **draw and color their own patterns** and explain them to a partner.
 - Exit question: *"How do you think an AI voice assistant knows what pattern you are asking about?"*
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Assessment:

- ✓ Observe students as they complete pattern activities.
 - ✓ Ask guiding questions to check for understanding:
 - "How did you figure out what comes next in the pattern?"
 - "Can you create your own pattern and explain it?"
 - ✓ Use student responses with the AI voice assistant as informal assessments.
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Extension Activities:

For Early Finishers:

- Ask the AI: *"Give me a harder pattern"* and try to solve it.
 - 🔍 **For Extra Challenge:**
 - Introduce **growing patterns** (e.g., 1, 2, 4, 8...) and have students work together to figure out the rule.
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By incorporating **AI voice assistants**, students **engage with technology in a hands-on way**, learning how AI uses patterns just like they do in math! 🚀🎉