Lesson Plan: Number Island Adventure!

Materials Needed:

- Paper or a small whiteboard
- Crayons, markers, or colored pencils
- Playdough (various colors)
- 20 small items for counting (e.g., beads, LEGO bricks, pebbles, shells, or small toys)
- Index cards or small pieces of paper with numbers 1-20 written on them
- One or two dice
- A small ball
- 10-20 empty plastic bottles or cups (for "Coconut Bowling")

Lesson Details

Subject: Mathematics (Number Sense)

Grade Level: Homeschool Kindergarten (Age 6)

Time Allotment: 45 minutes

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1. Learning Objectives

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

- **Count** a collection of up to 20 objects accurately.
- **Represent** a number from 1-20 by creating a set of objects.
- **Compare** two groups of objects (up to 20) and identify which has "more" or "less."
- **Recognize** and identify the written numerals 1-20.

2. Alignment with Standards

This lesson aligns with Common Core State Standards for Kindergarten Mathematics:

- **CCSS.MATH.CONTENT.K.CC.B.4:** Understand the relationship between numbers and quantities; connect counting to cardinality.
- **CCSS.MATH.CONTENT.K.CC.B.5:** Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration.
- **CCSS.MATH.CONTENT.K.CC.C.6:** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

Lesson Activities & Instructional Strategies

Part 1: Warm-Up - The Lost Numbers Treasure Hunt (5 minutes)

Instructional Strategy: Kinesthetic Learning, Number Recognition

1. Before the lesson, hide the number cards (1-20) around the learning space.
2. Tell the student: "Oh no! The numbers for our island map have been scattered by a gust of

wind! We need to find all the lost numbers from 1 to 20 to start our adventure."
3. Have the student hunt for the cards. As they find each one, ask them to say the number's name out loud.
4. Once all cards are found, work together to place them in the correct order on the floor, creating a number line.

Part 2: Main Activity - Build Your Number Island (15 minutes)

Instructional Strategy: Creative Application, One-to-One Correspondence

1. Give the student a large piece of paper or a mat and some blue and brown playdough. Instruct them to build their very own "Number Island."
2. Once the island is ready, explain that it's time to add treasures. The student will roll one die (for numbers 1-6) or two dice (for numbers 2-12). For numbers 13-20, they can draw a number card from the pile.
3. The student identifies the number they rolled or drew. Then, they count out that exact number of "treasures" (beads, shells, etc.) and place them on their island.
4. Ask guiding questions: "You drew the number 15! Can you count out 15 treasures for your island's secret cave?" This connects the numeral to the quantity in a fun, tangible way.

Part 3: Active Game - Coconut Bowling (10 minutes)

Instructional Strategy: Game-Based Learning, Subitizing (recognizing quantities without counting), and Part-Whole Relationships

1. Set up the plastic cups/bottles as "coconuts" in a bowling formation.
2. Tell the student: "A storm is coming to our island! Let's see how many coconuts you can knock down."
3. The student rolls the ball at the coconuts.
4. After their turn, guide them through counting:
    - "How many coconuts did you knock down? Let's count them."
    - "How many coconuts are still standing? Let's count those."
    - "How many coconuts did we have all together to start?" (Reinforces the total of 10, 15, or 20).
5. Reset and play a few rounds for repeated practice.

Part 4: Closure - More or Less Island Creatures (5-10 minutes)

Instructional Strategy: Comparative Language, Critical Thinking

1. Using the pile of number cards (1-20), you and the student each draw one card without showing the other.
2. Say: "Let's make some friendly creatures to live on our island. Use the playdough to make the number of creatures on your secret card."
3. Once you have both created your groups of creatures, reveal your work.
4. Ask comparison questions:
    - "I have 8 creatures, and you have 14. Who has **more** creatures?"
    - "Whose group is **less**?"
    - "How can we tell? Let's try to line them up to see."
5. To close the lesson, ask the student to tell you a short story about their island, using the numbers they worked with. For example, "My island has 14 creatures, and they found 15 treasures!"

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5. Differentiation and Inclusivity

- **For a student needing more support:**
  - Focus on numbers 1-10 first, gradually adding numbers up to 20 as they show confidence.
  - Use the number line created in the warm-up as a visual aid throughout the lesson.
  - Provide physical guidance by counting objects hand-over-hand with them.
- **For a student needing an extra challenge:**
  - Introduce simple addition. During the "Build Your Island" activity, have them roll two dice and add the numbers together to find their total treasures.
  - Ask "how many more" questions. "You have 12 coconuts standing. How many more do you need to get back to 20?"
  - Encourage them to write the numerals on a whiteboard or piece of paper after counting each set.

6. Assessment Methods

- **Formative (observational, during activities):**
  - Watch how the student counts the treasures and coconuts. Are they using one-to-one correspondence (touching each object only once as they say the number)?
  - Listen for their use of number words and comparative language ("more," "less").
  - Observe if they can correctly identify the numerals on the cards and dice.
- **Summative (at the end of the lesson):**
  - During the "More or Less" activity, assess if the student can correctly identify the group with more or less.
  - Give a final, simple instruction: "Can you show me 18 treasures on your island?" Their ability to successfully create a set of a given number demonstrates mastery of the core objective.