

**Lesson 16:  
Repeat Please!**

**Lesson 16 Overview:** Lesson 16 explores Repeat loops and how they can be used to make code more efficient. Children will also learn how to identify and create an AAAA and ABAB patterns in KIBO programs using Repeat and End Repeat Blocks.

**Powerful Ideas from Computer Science:** Algorithms, Control Structures, Modularity  
**Powerful Ideas from Literacy:** Sequencing, Literary Devices

**I. Warm Up: The Wheels on the Bus**

- Sing and dance to the “The Wheels on the Bus” as a class.
- After singing two verses of the song, discuss with the class the repetitions they observed in the song.

**II. Opening Tech Circle: Patterns & Repeat Loops**

- Create a clapping pattern and ask children to follow the clapping rhythm.

**III. KIBO Time: Repeating Patterns & Repeating Free Play**

- Using the large Programmer Says cards or KIBO blocks, create a simple repeating pattern. Have children engage actively by asking about the repeating pattern. As a class, come up with several other examples of KIBO programs that have repeating patterns.
- Explain to children that we can use a repeat loop to make it easier to scan a KIBO program with a repeating pattern. Introduce the Repeat and End Repeat blocks, with the number parameters: 2, 3, 4, and forever.
- Allow children to free play with the Repeat Block and number parameters.

**IV. Closing Tech Circle: Sharing Circle**

- In a circle, have children share one interesting or surprising thing they learned during free play. Children are also welcome to share a challenge they encountered. Other children are encouraged to offer possible solutions.

**Vocabulary:**

Loop  
Repeat  
Pattern

**KIBO Blocks:**

Repeat Block  
End Repeat Block