

Coding with Cornell: Loops

Grade Level: Kindergarten

Common Core National Standards Alignment

- **RI.K.3:** With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
 - **SL.K.2:** Confirm understanding of a text read aloud or information presented orally by asking and answering questions about key details.
 - **L.K.5.C:** Identify real-life connections between words and their use.
 - **W.K.2:** Use a combination of drawing, dictating, and writing to compose informative/explanatory texts that name what they are writing about and supply some information.
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Lesson Objectives & Relevance

Understanding **loops** helps students recognize **patterns and repetition** in both daily life and coding. Developing pattern recognition supports reading and problem-solving skills while fostering an early understanding of computational thinking.

By the end of the lesson, students will:

- Listen to and engage with *Coding with Cornell: Loops* through discussion and guided activities.
 - Recognize rhyming words and patterns in the text.
 - Understand **loops** as a way to repeat actions.
 - Participate in an activity where they perform and recognize repeated patterns.
 - Express understanding by drawing or dictating their own examples of loops.
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Resources and Materials

- *Coding with Cornell: Loops* book
- *Coding with Cornell: Activity Workbook*
- Chart paper and markers
- Classroom objects (e.g., blocks, crayons)

- Pre-made sentence strips with repeated actions
 - Pencils, crayons, and paper
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Vocabulary Words from the Text

- **Loop** – A pattern that repeats.
 - **Repeat** – To do something again and again.
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Lesson Introduction

Teacher Script:

“Today, we’re going to read *Coding with Cornell: Loops!* This book helps us learn about **loops**, which are used in coding to do things **over and over again**. But before we start, let’s think about some things we do every day in a loop!

What are some things you do **every** morning? (‘wake up’, ‘get dressed for school’, ‘eat breakfast’, ‘brush our teeth’) Do you play your favorite song over and over again? (Let students respond). That’s a loop, too! Loops help us do things **again and again**.

As we read today, listen for **rhyming words** and look at the **pictures** to see how loops help us in real life!”

(Write the word *loop* on the board and ask: “What do you think *loop* means?” Guide students to understand that **a loop is something that repeats**.)

Lesson Activities/Tasks

Activity 1: Read-Aloud and Discussion

- Read *Coding with Cornell: Loops* aloud, stopping at **loop examples**.
- Pause and ask:
 - “What is a loop?” (*Something that repeats!*)
 - “Can you find a loop in the book?” (*Help students identify repeated actions.*)
 - Using the illustration of Cornell and Cori on the carousel/merry-go-round, ask students to explain how being on a merry-go-round is like a loop.

Activity 2: Action Repetition Game

- **Educator Preparation:** Prepare action prompt cards with simple movements such as “Clap,” “Jump,” “Spin,” and “Stomp.” Create number cards ranging from 1 to 10.
 - Show an action card and a number card together (e.g., “Clap 4 times”). Students repeat the action the specified number of times.
 - Example Prompts:
 - “Clap your hands 3 times.”
 - “Jump up and down 5 times.”
 - “Spin around 2 times.”
 - After each action, ask: “Did we repeat the action? How many times?”
 - **Guidance Note:** This activity helps students understand how loops repeat actions a set number of times, just like repeating steps in coding.
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Activity 3: Workbook Integration

- Have students complete several worksheets in the Coding with Cornell Activity Workbook as classroom and homework activities, including:
 - The Lists Book Cover coloring sheet
 - *Python Loops* coloring sheet
 - Loops – Ballet Shoes
 - Loops – Computers
 - Loops – Gardening
 - Loops – Color Every Second Circle
 - Loops – Color Every Third Circle
 - Loops – Color Every Fourth Circle
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Lesson Conclusion & Assessment

Wrap-Up Discussion:

- “Who can tell me one **loop** we saw today?” (*Call on multiple students.*)
- “Why do **loops** help us?” *(Guide students to understand that **loops help us repeat important actions.**)
- “How did the pictures help us understand the story?”