

Coding with Cornell: Conditional Statements (Part Two: Exploring “If-Else”)

Grade Level: Kindergarten

Common Core National Standards Alignment

- **RL.K.1:** With prompting and support, ask and answer questions about key details in a text.
 - **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 and requesting clarification if something is not understood.
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Lesson Objectives & Relevance

Understanding **if-else statements** helps students recognize **choices and consequences** in both daily life and coding. It strengthens **logical thinking and decision-making skills**, while engaging with text structures supports reading comprehension.

By the end of this lesson, students will:

- Listen to and engage with *Coding with Cornell: Conditional Statements* through discussion and guided activities.
 - Recognize rhyming words and patterns in the text.
 - Understand **if-else** statements as a way to make decisions with two possible outcomes.
 - Participate in an activity where they match conditions with different outcomes.
 - Express understanding by drawing or dictating their own examples of **if-else** scenarios.
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Resources and Materials

- *Coding with Cornell: Conditional Statements* book
- *Coding with Cornell: Activity Workbook*

- True/False question cards
 - Pencils, crayons, and paper
 - Pre-made sentence strips with **if-else** conditions
 - Cut-out pictures illustrating different choices (e.g., sunny vs. rainy day)
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Vocabulary Words from the Text

- **Condition** – A rule that helps decide what happens next.
 - **True** – When something is correct or happening.
 - **False** – When something is not correct or not happening.
 - **If** – A word that helps make a decision based on a condition.
 - **Else** – What happens when the condition is not true.
 - **Choice** – Picking between two or more things.
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Lesson Introduction

- With students at their desks, ask them what they remember about conditional statements from the previous lesson on *Coding with Cornell: Conditional Statements*.
- Write “true” on the board, and ask students what it means when something is true.
- Write “false” on the board, and ask students what it means when something is false.
- Write “if it’s cold outside” or another conditional statement on the board, then ask students to respond with its instruction.
 - Wait for responses, such as “wear a jacket,” or “stay inside,” or “turn on the heat.”
- Once students have recalled the previous information from *Coding with Cornell: Conditional Statements*, inform that this lesson will focus on what to do when conditions are True or False—for example, what to do when it *is* cold outside, and what to do when it *is not* cold outside.
- Inform students that in coding, these types of choices are represented by if-else statements.

(Write the word *if-else* on the board and ask: “What do you think *if-else* means?” Guide students to understand that **if-else means choosing between two things based on what happens.**)

Lesson Activities/Tasks

Activity 1: Read-Aloud and Discussion

- Re-read *Coding with Cornell: Conditional Statements* aloud, focusing closely on the section that introduces **if-else** examples.
- Pause and ask:
 - “What happens when the condition is true?” (*The first option happens!*)
 - “What happens when the condition is false and there is an *else* option?” (*The second option happens!*)
 - Using the illustration alongside the text:

**If I’m bigger than you
I’ll help you with your chores
But if you’re bigger than me
You’ll need to help me open doors**

Ask, “What should Cornell do if he’s bigger than Cori? What would Cori need to do if she was bigger than Cornell?”

Activity 2: If-Else Voting with Movement and Decision-Making

- **Educator Preparation:** Create two boxes that students can use for voting. One box should be labeled “Yes” while the other box is labeled “No.” Give students red and green colored cards that they can use to vote for each issue.
- Explain that you will read a statement. If the statement is **True** for the student, they should place their card in the “Yes” box. If the statement is **False for the student**, they place it in the “No” box. After each statement, give students a few minutes to think about their answer and place their response in the appropriate box. Select a few students to ask why they chose Yes or No.
- **Prompts:**
 1. **Clothing & Appearance:**
 - "If you are wearing something blue, place your card in ‘Yes.’ Else, place it in ‘No.’"
 - "If your shoes have laces, place your card in ‘Yes.’ Else, place it in ‘No.’"
 - "If you have a zipper on your clothing, place your card in ‘Yes.’ Else, place it in ‘No.’"

English-Language Arts Lesson Plan: Kindergarten

Coding with Cornell: Conditional Statements

2. Physical Attributes:

- "If you are taller than this desk, place your card in 'Yes.' Else, place it in 'No.'"
- "If you have brown eyes, place your card in 'Yes.' Else, place it in 'No.'"
- "If your hair is longer than your shoulders, place your card in 'Yes.' Else, place it in 'No.'"

3. Personal Preferences & Favorites:

- "If your favorite color is blue, place your card in 'Yes.' Else, place it in 'No.'"
- "If you like ice cream, place your card in 'Yes.' Else, place it in 'No.'"
- "If you prefer dogs over cats, place your card in 'Yes.' Else, place it in 'No.'"

4. Daily Activities & Routines:

- "If you had breakfast this morning, place your card in 'Yes.' Else, place it in 'No.'"
- "If you walked to school today, place your card in 'Yes.' Else, place it in 'No.'"
- "If you brushed your teeth today, place your card in 'Yes.' Else, place it in 'No.'"

5. School-Related Prompts:

- "If you have a pencil in your backpack, place your card in 'Yes.' Else, place it in 'No.'"
- "If you like math class, place your card in 'Yes.' Else, place it in 'No.'"
- "If you brought a lunchbox today, place your card in 'Yes.' Else, place it in 'No.'"

Activity 3: Workbook Integration

- Have students complete several worksheets in the Coding with Cornell Activity Workbook as classroom and homework activities, including the pages titled *If-Else Statements* and the *If-Else Statements Coloring Sheets*.

Lesson Conclusion & Assessment

Wrap-Up Discussion:

- “Who can tell me one **if-else** statement we learned today?” (*Call on multiple students.*)
- “Why do **if-else** choices help us?” (*Guide students to understand that **if-else** helps us decide between two things.*)

Give students a simple question to answer before they leave:

- *“What is an if-else statement?”*
- *“What happens when a condition is false in an if-else statement?”*