Conditional Statements (Part Two: Exploring If-Else Statements)

Grade Level: First

Common Core National Standards Alignment

- RL.1.1: Ask and answer questions about key details in a text.
- RL.1.3: Describe characters, settings, and major events in a story, using key details.
- **RI.1.7:** Use illustrations and details in a text to describe its key ideas.
- SL.1.5 Add drawings or other visual displays to descriptions to clarify ideas.

Lesson Objectives & Relevance

Understanding if-else statements helps students develop logical thinking and decision-making skills. Recognizing cause-and-effect relationships in text supports comprehension, while discussing illustrations deepens understanding. These skills help prepare students for both reading and computational thinking. By the end of the lesson, students will:

- Listen to and engage with *Coding with Cornell: Conditional Statements* through discussion and guided activities.
- Identify key details and main ideas in the text.
- Recognize and describe how if-else statements allow for different choices based on conditions.
- Use illustrations to describe and explain key concepts in the story.
- Write or dictate an explanatory sentence using if-else logic.

Resources and Materials

- Coding with Cornell: Conditional Statements book
- Pencils, crayons, and paper
- Chalk board

Vocabulary Words from the Text

- Condition A rule that helps us decide what to do.
- True Means yes, it is happening or correct.
- False Means no, it is not happening or not correct.
- If A word we use to help make a choice.
- Else What we do if the first choice doesn't happen.
- **Choice** Picking between two or more things.
- **Instruction** A direction that tells us what to do.

Lesson Introduction

- Have students gather at their desks or on the carpet.
- Begin by asking students what they remember about **if statements** from the last lesson on *Coding with Cornell: Conditional Statements*. Write "if" on the board and review that an **if statement** helps us decide what to do **when something is true**.
- Ask, "What happens when the condition is **not true**?" Guide students to recall that if-statements don't give instructions when the condition is false.
- Write the sentence:
 - If it is sunny, we will play outside.
- Ask students, "What if it is **not** sunny? What should we do then?" Help students understand that we might need a second choice, like playing indoors.
- Introduce the new concept by writing **if-else** on the board. Ask, "What do you think *if-else* means?" Guide students to understand that *if-else* statements give **two possible actions**: one if something is true, and one if it is not.
- Explain that coders use if-else statements to help computers make decisions, just like we do in real life.
- Remind students to listen for examples of **if-else statements** and rhyming words as you read *Coding with Cornell: Conditional Statements* again today.

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!*)
- o 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?"

Using the illustration alongside the text:

If we like sports,
We should play basketball
But if we don't like sports
We should dance
And I'll catch you before you fall

Ask, "What sport should Cornell and Cori play if they like to sports? If Cornell and Coru don't like sports, what should they do instead?"

Activity 2: Drawing and Dictation

- Using the illustration of Cornell and Cori choosing between basketball and dancing, ask: "What should they do if they like sports? What should they do if they don't?"
- Have students think about what *they* would choose. Ask them to draw two pictures: one showing a sport they'd play if they like sports, and one showing something else they'd do if they don't.
- At the top of the appropriate drawing, students write:

0	The like sports, we play
0	"If we don't like sports, we

- Encourage students to be creative—dancing, reading, painting, or any quiet-time activity is fine!
- At the conclusion of the activity, have several students volunteer to share their pictures, explaining what sport they would play if they liked sports, and what they would do if they didn't like sports.
- **Guidance**: This activity helps students explore if-else logic using personal interests while reinforcing reading comprehension, choice-making, and sentence structure.

Activity 3: True or False? Sorting Aloud Challenge

- Educator Preparation: Create a list of sentences with simple, fact-based statements, some true and some false. For example:
 - o "Apples are fruits." True
 - o "Cats can fly." False
 - o "Bats sleep at night." False
 - o "In the snow, we wear sandals." False

On the board, draw a chart with two headers: True and False.

- Draw a two-column chart on the board labeled **True** and **False**.
- Read each statement aloud. After each one, ask: "Is that true or false?"
- As students respond, place the sentence under the correct column. Call on individual students to explain their reasoning: "Why do you think it's true?" or "What makes it false?"
- Guidance: This activity strengthens students' understanding of *truth values* and sets the foundation for understanding how coding decisions are based on whether something is **true or false**. Later, you can connect this to coding: "If the condition is true, do this. If it's false, do something else."

Activity 4: 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.'"

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 4: 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 share one **if-else statement** from Coding with Cornell: Conditional Statements that we heard today?"



• "Why do if-else statements help us make choices?" (Guide students to understand that ifelse tells us what to do based on different conditions.)

Exit Ticket:

Give students a simple question to answer before they leave:

- "What is an if-else statement?"
- "What happens when an if-else condition is false?"