



Conditional Schedule

Educator's Guide

Overview

CS Hands-On is a 501(c)(3) nonprofit teaching computational thinking skills through technology-free lessons and activities. This curriculum is built to teach fundamental computer science concepts in an engaging, hands-on way. In this mission, students use if-then statements to create a daily schedule.

Prerequisite Knowledge

There are no prerequisites to this lesson.

Lesson Details

At Evaluatus, students will learn to evaluate judgements with Ellis. Students will learn the structure and syntax of an if statement. Following this, they will create a conditional schedule to write if statements for decisions they make during certain times of the day.

This lesson was developed for students ages 8 to 13, and can be modified for students of all skills and ages. This lesson takes around 30 minutes.

Learning Objectives

Key Question

How do we use if statements in our daily life?

Key Terms

If statement: A conditional statement used in computer science that performs an action when a certain condition is true.

Curriculum Standards

Students should be able to...

- Explain how if statements are created and used (Evaluation)
- Read, write, and interpret if statements (Literacy)
- Draw and write a conditional schedule using if statements (Creative Arts)

[View standards addressed here](#)



Lesson Plan

Materials

- Conditional Schedule worksheet (per student)
- Coloring tools (Markers, crayons, colored pencils)

Setup

- Hand out a Conditional Schedule worksheet to each student
- Set up your classroom to form students in groups

ANSWER KEY & LESSON ANNOTATIONS



Evaluatus
Mission 1

Name: _____ Date: _____

Conditional Schedule

A Day in the Life

At Evaluatus, Ellis's daily schedule depends on many factors: the weather, what day of the week it is, etc. Let's find out how Ellis makes decisions during different times of the day!

What are If Statements?

If statements are a type of conditional statement used in computer science to perform actions when a certain condition is true. Programming languages represent if statements using the format: **if** a condition is reached, **then** perform an action.

Follow Ellis around Evaluatus to learn how she uses if statements in her daily life!

Reflect

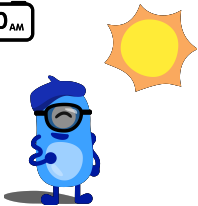
Why are if statements useful?
If statements help us to make decisions that depend on a specific condition. For instance, if it's Sunday afternoon, then I will water my plants. This condition reasoning allows us to do an action if some condition is true.

8:00 AM

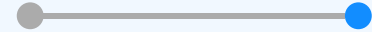


If Ellis is hungry,
then Ellis will eat a poppyseed bagel.

11:00 AM



If it's sunny outside,
then Ellis will wear sunglasses.

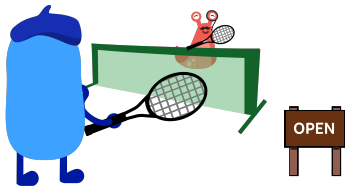


Reflect

Apart from these everyday examples, students may be wondering how computers use if statements.

Computers use if statements everywhere! For instance, if I press the letter 'a' on my keyboard, then it will write the letter 'a' on my screen. Additionally, if I press the power off button, then the computer will shut down.

2:00 PM



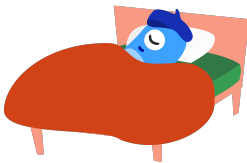
If the Evaluatus park is open,
then Ellis will play tennis with Pancho.

7:00 PM

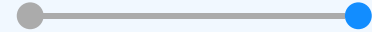


If Ellis has finished her schoolwork,
then Ellis will read a book.

9:00 PM



If Ellis is sleepy,
then Ellis will go to bed.



Your turn!

Now that you're more familiar with if statements, you will be creating your version of a conditional schedule! Gather a set of colored pencils to draw and fill in the if statements below.

8:00 AM

If _____ ,
then _____

10:00 AM

If _____ ,
then _____

12:00 PM

If _____ ,
then _____

Extension

Before beginning the activity, it may be helpful to over some if statements with the class as a whole. Brainstorm a few if statements that you use every day!



3:00 PM

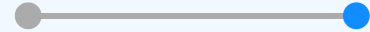
If _____ ,
then _____

6:00 PM

If _____ ,
then _____

8:00 PM

If _____ ,
then _____



Wrap up & reflect

Group students into pairs and have them discuss the following reflection questions. Afterwards, have students share their ideas as a class.

- What's one big idea you learned from today's activity?
 - If statements help us make decisions in our everyday lives
 - If statements use one condition and one/multiple actions
 - I use many if statements in my daily routine!
- Why are if statements useful?
 - If statements help us make decisions in our everyday lives
 - If statements help us predict events that may happen in the future