

Instructional Scenario

Code the Program

Using Programming Language



Course/Duty Area: Programming/Implementing Programming Procedures

Scenario:

Flow control statements can represent the diamonds you used in your flowchart design. You have previously created a flowchart to check to see if someone is named Alice. In plain English, an *if* statement could be read as, "If the statement is true, execute the code in the clause." From the flowchart you design for someone named Alice, write the code that will translate the flowchart design to a programming language (e.g., Python). Note that the name was previously assigned some value. Use the *if* statement clause with the block of code that will print, "Hi Alice." Remember to indent the block of print code. Also, be sure that all flow control statements end with a colon and are followed by a new block of code. Code should

- translate the flowchart into a standard programming language
- use formatting best practices for programming languages.

Big Question:

Can a student code a program, translated from a flowchart, using a standard programming language?

Focused Questions:

- What are the two elements of flow control in programming?
- What are the three rules for blocks of code (in Python)?

Student Project or Outcome:

Code a program using programming language from a flowchart design and produce output.

Project-Based Assessment:

Code a program by translating a flowchart into a standard programming language that

- uses *if* keyword
- uses a condition (an expression that evaluates to true or false)
- contains a colon
- ends the flow of the control statement with a colon followed by a new block of code (the clause). This *if* statement's clause is the block with print, "Hi Alice." Start on the next line with an indented block of code.

Teacher Resource:

[Flow Control](#), Invent with Scratch

Scenario submitted by Natalie Walden, Hampton Middle School, Prince William County Public Schools