

Instructional Scenario

Debug the Program



Course/Duty Area: Programming/Implementing Programming Procedures

Scenario:

You are a student at Star Academy. In your programming course, your instructor has tasked students to research and identify typical programming errors. He has also asked students to identify the five basic steps to problem solving and show how problem-solving skills can be applied to debug coding and programming errors. You must:

- Define typical programming errors (syntax, logic, and runtime errors).
- Research basic steps to problem-solving.

Big Question:

What are the five steps to solving a coding and programming issue?

Focused Questions:

- What does it mean to *debug a program*?
- Define *syntax*, *logic*, and *runtime errors*.
- What are five steps to problem solving?
- How can problem-solving techniques logically be applied to coding and programming?

Student Project or Outcome:

Write an essay that identifies typical programming errors and illustrates how to apply the five steps to problem solving to coding and programming issues.

Project-Based Assessment:

Present your findings in a document. Coders and programmers can

- identify programming errors
- list the five steps to problem solving any issue in sequential order.

Teacher Resources:

[Debugging](#), Automate the Boring Stuff with Python

[Rainbow Lines in Space!](#), Invent with Scratch

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