

Student-Safe AI Coding Conversation Sample

AI + Coding Starter Kit | Student Tool | Students

Purpose: This resource supports ai + coding starter kit instruction with practical, classroom-ready guidance.

Standards summary: This resource may support Tennessee Computer Science Foundations standards when used as part of AI literacy, computer science, programming, digital ethics, or cybersecurity instruction. Detailed standards connection appears at the end of this document.

Detailed Tennessee Standards Connection

This sample supports standards when students use AI to interpret code, identify a bug, test a fix, and reflect on ethical student ownership.

Standards source: Tennessee Department of Education, Computer Science Foundations (C10H11), May 2023. Confirm final alignment against local district pacing, approved course placement, and teacher directions.

This resource may support the following Tennessee standards when used as part of AI literacy, computer science, programming, digital ethics, or cybersecurity instruction:

- CSF 9.2 - Troubleshooting Process: Students use a structured process to identify a problem, gather information, isolate causes, test a solution, verify the result, and document what they learned.
- CSF 13.1 - Social, Legal, and Ethical Issues: Students identify responsibilities related to ethical technology use, academic integrity, copyright, appropriate AI use, and responsible programming support.
- CSF 16.1 - Programming Language: Students explore programming languages such as Python and explain how programmers use them to solve a variety of IT problems.

Scenario

A student is trying to write a Python loop that prints the numbers 1 through 5. The code is not working.

Student Code

```
for number in range(1, 6) print(number)
```

Unsafe / Shortcut Use

Fix this code and give me the final answer.

Why this is weaker: The student may copy the corrected code without understanding what was wrong.

Better Use: Ask for a Hint

I am learning Python loops. Explain the error in this code and give me one hint about what to check. Do not rewrite the whole answer yet.

Better Follow-Up: Explain the Concept

Why do Python for loops need punctuation and indentation? Explain it like I am a beginner.

Practice Prompt

Give me a similar loop example with one small mistake so I can practice finding it myself.

Verification Step

Run the revised code.

Check whether it prints 1, 2, 3, 4, and 5.

Explain what changed and why it worked.

Compare the explanation with teacher notes or class examples.

Student Reflection

AI helped me understand the missing punctuation and the role of indentation. I made the final code change, tested the result, and can explain why the fix worked.

Teacher Discussion Questions

What did the student still do independently?

Which prompt kept the student responsible for learning?

What should the student document before submitting the assignment?

How would this conversation change if the assignment directions said no AI use?

Cautious guidance: Alignment depends on local district pacing, approved course placement, teacher directions, and how the resource is used as part of instruction.