

Responsible AI Use in Coding Rubric

AI + Coding Starter Kit | Assessment Tool | Teachers / Students

Purpose: Use the rubric with a code artifact, bug log, short reflection, or student conference.

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.

Category	1 - Needs Support	2 - Developing	3 - Proficient	4 - Strong
Student Ownership	Student cannot explain code or AI use.	Student explains some code, but relies heavily on AI output.	Student explains most code and identifies AI support.	Student clearly explains code, choices, AI support, and final decisions.
Debugging Process	No clear troubleshooting process.	Some attempt to identify or fix the issue.	Uses a basic debug process and tests the result.	Clearly identifies, isolates, fixes, verifies, and documents the issue.
Prompt Quality	Prompt asks AI to complete the task.	Prompt asks for broad help with limited student control.	Prompt asks for explanation, hint, or debugging support.	Prompt is specific, ethical, learning-focused, and keeps student thinking central.
Code Understanding	Student cannot describe program behavior.	Student describes parts of the program with gaps.	Student explains main program behavior and fix.	Student explains program flow, bug cause, fix, and possible next improvement.
Verification	No testing or checking is shown.	Limited testing or unclear verification.	Student tests or traces code after revision.	Student verifies the fix and explains how the result was confirmed.
Academic Integrity	AI appears to replace student work.	AI use is unclear or weakly documented.	AI use is documented and generally appropriate.	AI use is transparent, appropriate, and clearly supports learning.

Teacher Notes

- Use the rubric with a code artifact, bug log, short reflection, or student conference.
- A working program should not receive full credit if the student cannot explain the code.
- AI use should be evaluated by purpose, transparency, and evidence of learning, not simply by whether AI was used.

Student AI Use Documentation

- Students can complete these statements when submitting AI-supported coding work:
- The coding problem I worked on was: _____
- The part I tried before using AI was: _____

• The AI prompt I used was: _____

AI helped me understand: _____

• The final code change I made was: _____

I verified the code by: _____

Conference Questions

What does this program do?

Where was the bug or challenge?

How did you decide what to change?

What did AI explain, and what did you still do yourself?

Could you solve a similar problem without AI next time?

Detailed Tennessee Standards Connection

This rubric supports standards when students document debugging, explain programming decisions, verify results, and evaluate whether AI use was ethical and learning-focused.

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.
- CSF 16.2 - Software Development Life Cycle: Students connect planning, coding, testing, refinement, deployment, and maintenance to an iterative software-development process.

Purpose

Use this rubric to evaluate student coding work when AI support is allowed. The goal is to assess both programming understanding and responsible AI use.

Rubric

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