Human-AI Collaboration Rubric

Assessing Partnership Understanding in Cybersecurity Activities

Rubric Overview

This rubric assesses students' understanding and demonstration of authentic human-AI collaboration—treating AI as a team member with complementary capabilities rather than as a tool or answer source.

Use with: All three "True Teamwork" activities **Point range**: 4-16 points (4 criteria × 1-4 points each)

Assessment Criteria

Criterion 1: AI Partnership Framing (1-4 points)

Score	Descriptor	Observable Behaviors
4 - Advanced	Consistently frames AI as collaborative partner	Uses partnership language; asks AI for perspectives, not answers; acknowledges AI as team member with role
3 - Proficient	Demonstrates understanding of AI as partner	Engages AI conversationally; recognizes AI contributions to team outcome
2 - Developing	Shows some partnership awareness	Occasional partnership language; still tends toward tool-use framing
1 - Emerging	Treats AI as tool/search engine	Uses AI only for answers; no evidence of collaborative framing

Criterion 2: Complementary Strengths Recognition (1-4 points)

Score	Descriptor	Observable Behaviors
4 - Advanced	Articulates specific complementary strengths and leverages them strategically	Identifies what AI does better AND what humans do better; adjusts approach based on these strengths
3 - Proficient	Recognizes different strengths	Can name human strengths (context, judgment) and AI strengths (patterns, speed)
2 - Developing	Partial recognition	Acknowledges AI has capabilities but doesn't differentiate from human capabilities

Score	Descriptor	Observable Behaviors
1 - Emerging	No recognition of complementary nature	Treats AI as superior or inferior rather than complementary

Criterion 3: AI Limitation Awareness (1-4 points)

Score	Descriptor	Observable Behaviors
4 - Advanced	Actively identifies and works around AI limitations	Asks AI about its limitations; designs questions to work around weaknesses; doesn't over-rely on AI
3 - Proficient	Acknowledges AI limitations	Recognizes when AI lacks context or may be wrong; seeks verification
2 - Developing	Some limitation awareness	Notices when AI gives unexpected answers but doesn't consistently account for limitations
1 - Emerging	Treats AI as infallible	Accepts all AI output without question; no critical evaluation

Criterion 4: Synthesis Quality (1-4 points)

Score	Descriptor	Observable Behaviors
4 - Advanced	Creates novel insights from human-AI synthesis	Final conclusions demonstrate synergy—insights neither human nor AI would reach alone
3 - Proficient	Meaningful integration	Combines human and AI contributions into coherent conclusion
2 - Developing	Partial integration	Lists human and AI contributions but doesn't fully synthesize
1 - Emerging	No integration	Reports AI findings or human findings separately; no synthesis

Scoring Guide

Total Score	Performance Level	Interpretation
14-16	Exemplary	Student demonstrates sophisticated understanding of human-AI partnership; ready for advanced collaboration scenarios
10-13	Proficient	Student understands partnership concepts and applies them consistently; may benefit from more complex challenges

Total Score	Performance Level	Interpretation
6-9	Developing	Student shows emerging partnership understanding; needs additional scaffolding and practice
4-5	Beginning	Student needs fundamental instruction on AI as partner vs. tool; start with basic framing activities

Instructor Notes

For formative use: Focus on Criteria 1 and 2 early; these establish foundation for deeper understanding.

For summative use: All four criteria provide comprehensive picture of collaboration understanding.

Adaptation: Adjust expectations based on:

- Grade level (6th grade may cap at "Proficient")
- Prior AI experience
- Complexity of activity scenario

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