

4565: Computing Foundations for a Digital Age

Unit 1

Day 6 Lesson Plan: Hardware Trading Cards - Presentations

Objective

Students will present their completed hardware trading cards to the class, explaining the function, system role, importance, and best user or use case for their selected component while practicing clear communication and active listening skills.

Word Bytes

- **Central Processing Unit (CPU)** – The primary part of a computer that carries out instructions of a program by performing basic arithmetic, logic, and control operations.
- **Graphics Processing Unit (GPU)** – A specialized processor designed to accelerate graphics rendering and perform parallel operations for complex image and video tasks.

Materials

- Student-completed Google Slides or Doc trading cards
- Presentation rubric or feedback form (optional)

Activities

Set the Stage — 5 minutes

- Explain the expectations for presenting:
 - ☐ Speak clearly and confidently
 - ☐ Explain the part's function
 - ☐ Identify its system role: input, processing, output, storage, or communication
 - ☐ Explain why the component matters in a computer system
 - ☐ Identify a user or task that would benefit from this component
 - ☐ Share an interesting fact or real-world application
- Optional: Provide students with a printed or digital rubric that shows what makes an effective presentation.

Hardware Trading Card Presentations — 30 minutes

- Each pair (or individual) presents their card to the class.

- As others watch, encourage note-taking or brief reflections:
 - ☐ “What is one thing you didn’t know before?”
 - ☐ “What system role did this component play?”
 - ☐ “Who would benefit most from this component?”
 - ☐ “Which component do you think is most essential and why?”
- Teacher may ask quick follow-up questions after each presentation to clarify or deepen the learning.

Whole-Class Wrap-Up Discussion & Word Bytes — 8 minutes

- Ask: “What themes did you notice across all the components?”
- Prompt: “If you were designing a new device, what parts would be most important to include first—and why?”
- Ask: “Would your choices change depending on the user or task? For example, would a gamer, student, video editor, or person with accessibility needs prioritize different components?”
- Students add “**CPU**” and “**GPU**” to their Word Bytes dictionary with examples.
- **Suggested examples:**
 - CPU – The brain of the computer that runs apps and performs tasks.
 - GPU – Helps process images and videos, like in games or video editing.

Optional Peer Shout-Outs — 2 minutes

- Give students a chance to recognize a peer’s presentation (“I liked how they explained...”, “Their card had a really cool design...”).
- This builds community and reinforces listening.