

IN-CLASS STUDENT ACTIVITY 2.4: MANAGE GAME PERFORMANCE

Lesson Objective 2.4:

Manage game performance. *Topics:* CPU vs. GPU.

Resources, software, and additional files needed for this lesson:

1. Internet access

Guiding questions:

1. What are the differences between CPU and GPU?
2. What determines if a designer uses a Reach or a HiDef profile?

Student Activity:

Directions to the student:

Read the following scenario. Read the articles. With a partner, complete the chart to compare and contrast CPU and GPU using key terms from the list.

Scenario:

David Hamilton works as a developer at A. Datum Corporation and has been selected to help interview some potential new game designers for his department. He wants to be sure that his knowledge of game design fundamentals, including CPU and GPU concepts, is current with what the new graduates have been learning. A comparison of the two will help David solidify his knowledge.

Content:

1. Fill in the table that follows with a phrase or words associated with each heading. Use terms and concepts from the readings.

Difference Between CPU and GPU: <http://www.differencebetween.net/technology/difference-between-cpu-and-gpu/>

How Graphics Cards Work: <http://computer.howstuffworks.com/graphics-card.htm>

How Xbox 360® Works: <http://electronics.howstuffworks.com/xbox-three-sixty.htm>

2. Include these terms also:

2-D and 3-D graphics
"Brain" of the computer
Faster processor
Specialized
Geometric computations
Shader
Parallel processing

CPU	GPU