

Computer Terminology and Units

Date: _____

Learning Goals:

By the end of the lesson I will be able to:

- Explain the difference between _____, _____
and _____ with respect to computer hardware
- Identify the unit of measure for _____, _____
and _____ of typical computer hardware
- Identify _____ within components and how that affects

I Think I Can!

☐☐☐

Review

Computers use _____ for all communication. The place values are based on powers of _____, rather than 10.

A single digit in binary is called a _____. A _____ is 8 bits.

The order of prefixes are _____, _____, _____, _____, _____. Each prefix is _____ times larger than the previous.

Data Transfer Rate

Data Transfer Rate: (Remember not to use Data, Transfer or Rate in the definition!)

When we talk about data transfer rate we talk about 3 things:

1. _____:
2. _____:
3. _____:

Capacity

Capacity is...

We measure capacity because...

Capacity is measured in _____ and abbreviated _____

Examples:

Bandwidth

Bandwidth is...

We measure bandwidth because...

Bandwidth is measured in _____ and abbreviated _____

Examples:

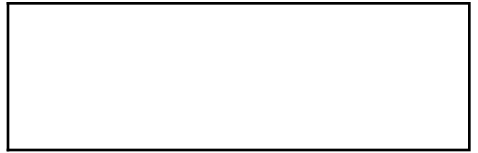
Speed

Speed is...

We measure speed because...

Examples:

Speed is measured in _____ and abbreviated _____

An empty rectangular box with a black border, intended for the user to write the answer to the question.

Data Transfer Rate

Data Transfer Rate is...

We measure data transfer rate because...

Data transfer rate is measured in _____
and abbreviated _____

Examples:

Interfaces

Some important interfaces:

1. SATA:

2. DDR SDRAM:

3. Socket

Review Work:

To demonstrate your understanding of the concept of data transfer rate, answer the following questions. Use your definitions to help you make the decision.

1. Consider a busy highway.

a. The number of cars that pass an exit in one minute would be an example of:

Capacity

Bandwidth

Speed

Data Transfer Rate

None of the Above



b. The bandwidth of the highway (one direction of travel only) in the picture is:

2

3

4

5

6

2. Explain the difference between bps and Bps. How do they compare in size?

3. Why do computers synchronize their movements according to a clock?

4. When your computer plays an MP3, it loads the file from the hard drive into RAM before it can play it. If your hard drive has a data transfer rate of 500 Bps and the MP3 file is 5.5 MB, how long will it take to transfer the file from the hard drive into RAM?