

GCSE Revision Task Memory and Storage



Instructions

Print out the pages below with the yellow and blue boxes – one set per pair/group of students

Cut round the boxes – keep the yellow set separate from the blue set.

Give both sets of cut out boxes to each pair/group

The yellow boxes contain a GCSE question. Each yellow box contains different command words. This is to give students practice with recognising how to answer similar questions with different command words.

The blue boxes contain answers for each question.

Students should try to match up the correct question and answer.

As a class, discuss the suitability of answers depending on the command word at the start of a question.

Questions – print and cut out

List three things that you know about a hard disk

Outline 2 advantages and 2 disadvantages of using a hard disk to back up your data

Compare and contrast a hard disk with RAM

The network manager in a school is thinking about replacing all of the current computers. Discuss something that they will need to consider.

Explain how a hard disk works.

Define the term 'hard disk'

Answers – print and cut out

It is a magnetic storage device

- A hard disk can store hundreds of Gb of data
- A hard disk has platters which spin

- A hard disk is already installed on all computers so you don't have to carry it around with you or risk losing it
- A hard disk can store hundreds of Gb of data so it should be large enough to store all of the applications and files that you wish to use.
- A hard disk can't be easily removed which means that if the machine is stolen or damaged, you might not have another copy of your data stored elsewhere
- The data on a hard disk can be damaged if the machine crashes regularly and the read/write head drops down onto the sectors which are storing the data.

A hard disk stores data permanently whereas RAM is volatile and the data it is storing is lost when the computer is switched off. A hard disk has spinning platters which contain the data whereas RAM stores the data on a chip. A hard disk can store hundreds of Gb of data whereas RAM can only store relatively small amounts of data. RAM is much faster to access data than a hard disk.

They will need to think about how many applications will need to be loaded onto the machines and the size of the applications. They will need to ensure that the hard disk is large enough to store all of that data and to be 'future proof' in case new applications are purchased in the future.

A hard disk spins around thousands of times per minute inside its metal casing. This is why there is a 'whirring' noise when it is being accessed. Less than a hair's breadth above the disk is a magnetic read and write head which reads the data from the spinning platters beneath.

A hard disk is a rigid non-removable magnetic storage device which is found inside the computer case.

Questions and Answers

List three things that you know about a hard disk

- It is a magnetic storage device
- A hard disk can store hundreds of Gb of data
- A hard disk has platters which spin

Outline 2 advantages and 2 disadvantages of using a hard disk to back up your data

- A hard disk is already installed on all computers so you don't have to carry it around with you or risk losing it
- A hard disk can store hundreds of Gb of data so it should be large enough to store all of the applications and files that you wish to use.
- A hard disk can't be easily removed which means that if the machine is stolen or damaged, you might not have another copy of your data stored elsewhere
- The data on a hard disk can be damaged if the machine crashes regularly and the read/write head drops down onto the sectors which are storing the data.

Compare and contrast a hard disk with RAM

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A hard disk has spinning platters which contain the data whereas RAM stores the data on a chip.

A hard disk can store hundreds of Gb of data whereas RAM can only store relatively small amounts of data.

RAM is much faster to access data than a hard disk.

The network manager in a school is thinking about replacing all of the current computers. Discuss something that they will need to consider.

They will need to think about how many applications will need to be loaded onto the machines and the size of the applications. They will need to ensure that the hard disk is large enough to store all of that data and to be 'future proof' in case new applications are purchased in the future.

Explain how a hard disk works.

A hard disk spins around thousands of times per minute inside its metal casing. This is why there is a 'whirring' noise when it is being accessed. Less than a hair's breadth above the disk is a magnetic read and write head which reads the data from the spinning platters beneath.

Define the term 'hard disk'

A hard disk is a rigid non-removable magnetic storage device which is found inside the computer case.