

Computer Specifications (Apple)

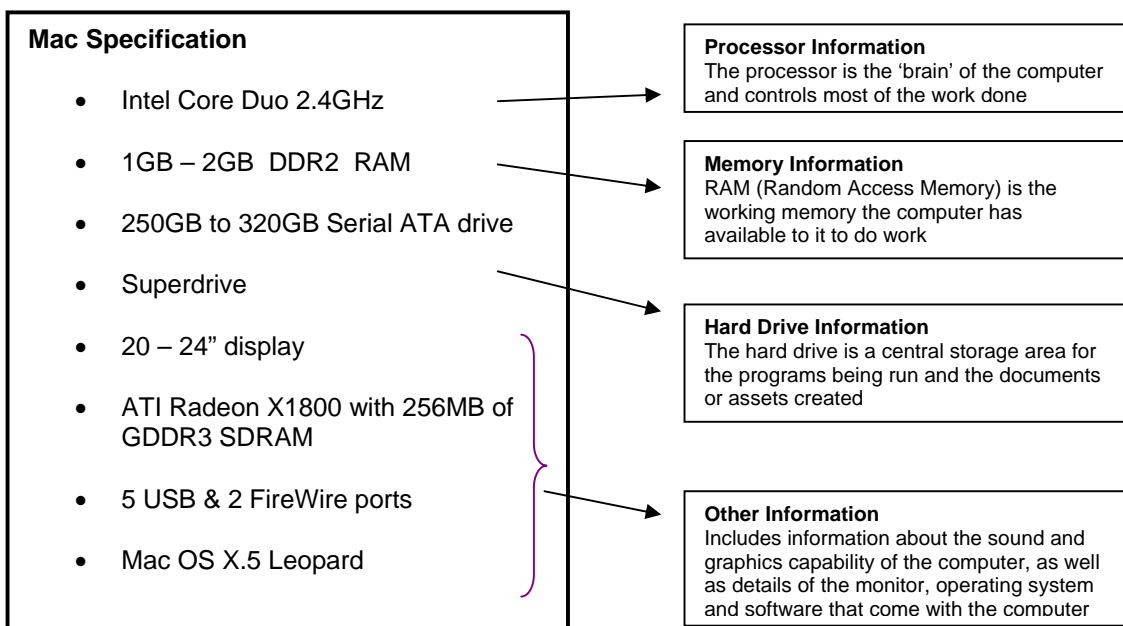


What is the Specification?

The specification or 'spec' is a list of the key components that make up the computer. It is provided by retailers to help buyers decide which computer, and which combination of features, they need. When buying a computer, it is important to start by deciding what it is you want the computer to do. This then informs what specification you actually need.

When reviewing a computer specification, the most important components to take account of are the **processor**, the amount of **RAM** and the size of the **hard drive** as these are central to the overall capability of the system. If it is planned to use specialised programs for students with special needs (e.g., scan/read software video editing or creating and editing music), it is advisable to purchase, high specification computer to meet the system requirements for these programs. Apple computers are often preferred by users for their capabilities in areas such as digital manipulation of photos, video and sound and entry level models have functionality in these areas.

Understanding a Specification



Processors

Apples computers (mac minis and iMacs) are powered by Intel Core 2 Duo Processors.. The processor speeds range from 1.66GHz in the entry level Mac mini up to 3.06GHz in the top of the range iMac.

Apple laptops are called MacBooks and MacBook Pros and these also feature Intel Core Duo processors. The MacBook processors range from 2.0GHz to 2.8GHz. The MacBook Pro processors range from 2.4GHz to 2.53 GHz.

The high spec Mac Pro comes with quad core or 8 core processors. These processors are well beyond the requirements of schools unless some very highly specialised work in audio or video is being undertaken.

Type	Entry-level processors	Mid-range processors	High-end processors
	Mac minis;	17" iMacs; MacBooks	20" and 24" iMacs; MacBook Pros
IDEAL FOR	<ul style="list-style-type: none"> Educational software Office applications Internet browsing Multimedia Applications Digital video 	<ul style="list-style-type: none"> Educational software Office applications General multimedia applications Internet browsing Video and DVD production Sound editing 	<ul style="list-style-type: none"> Video editing and DVD production Office applications Internet browsing Educational software
PROCESSOR TYPES	<ul style="list-style-type: none"> 1.83GHZ to 2.0GHZ Core Duo 	<ul style="list-style-type: none"> 2.0GHZ to 2.4GHZ Core Duo 	<ul style="list-style-type: none"> 2.4GHZ to 2.8 GHz Core Duo

Memory (RAM)

The main working memory in a computer is called random access memory or RAM. The processor uses this memory to run programs. RAM is measured in megabytes (MB).

- A minimum of 2.0GB of RAM is recommended for general-purpose computers.
- 2GB of RAM is also sufficient for computers running multimedia applications, i.e., those on which digital music, digital video or high-end graphics are being created/edited.

Storage – The Hard Drive

The hard drive is the computer's primary storage area. It stores the applications and programs that run on the computer, as well as any work created by users. From a school's perspective, the capacity of the hard drive, (something that is measured in gigabytes -Gb), is a key criterion and should be given due consideration when reviewing computer specifications.

- A hard drive capacity of at least 160GB is recommended for general-purpose computers.
- A hard drive capacity of 250GB or more is recommended if working with multimedia applications where large graphics and digital audio/video files are being created and stored.

Other Specifications

Monitors.

There is no display device shipped with a Mac mini, it is designed for use with existing monitors

The Apple iMac possesses a characteristic all-in-one design — the monitor (20" to 24"), speakers and system unit are integrated into a single item. There is no inconvenience with cabling or separate power supplies for the various components; a single power point is all that is required.

- Average entry-level iMacs usually come with a 20" monitor and this is suitable for most general purpose applications.
- For higher-end iMacs, which are more appropriate if video editing and advanced graphics work is being carried out, larger 24" screens Teachers of students with special needs may want to consider using larger monitors with their students.

Macbooks come with 13.3" diagonal display and MacBook Pros come with a 15" or a 17" option

Optical Drives

Optical drives are standard on computers and allow the information on a compact disc (either data or audio) to be *read* by the computer. An optical drive is defined by its speed (i.e., 16x or 16 speed, 48x or 48 speed).

iMacs and Mac Minis come with a Superdrive usually an 8x . A combo drive can read DVDs and CDs and can write data on CDs. A SuperDrive can read and write data to CDs and DVDs.

The entry level Mac Mini and iMac may still have combo drives. Higher spec models have SuperDrives as standard

MacBooks and MacBook Pros all come with a 8x Superdrive as standard.

Graphics and Sound Cards

These cards are installed inside a computer and are responsible for determining the quality of the audio and visuals (graphics and video) output by the computer. They can hold their own memory (in MB), which is why they add to a computer's capability or sometimes they share with the main memory.

The Mac minis use a share of the main working memory. The higher spec iMacs have a dedicated 128 MB of graphics memory which is upgradeable.

MacBooks come with shared graphics and MacBook Pros have dedicated graphics memory

- Mac minis and iMacs come with integrated sound which is not upgradeable.

Speakers and Headphones

iMacs, Mac minis, MacBooks and MacBook Pros come with built-in speakers and a built in microphone as standard The volume control is located on the keyboard in the iMac. Cheap 'headphone splitters' can also be purchased — these enable more than two sets of headphones to be used per computer.

Network Interface Card (NIC)

All Apple Computers come with a built-in 10/100/1000 BASE-T Ethernet network card and an AirPort card as standard. A network card allows a computer to be connected to a network and an airport card allows the computer to be connected to an available wireless network. Apples can be connected to any network, however the network resources available would depend on the network configuration

Operating System

Computers are shipped with an operating system pre-installed. It is worth checking that your existing software will still work with the operating system (OS) of any new systems being purchased. It may be possible to choose a particular operating system and, if so, this may help

standardise new machines with existing school computers All Apple Macs currently come with Mac OS X v10.5 Leopard and the iLife 06 suite.

iLife 08 is made up of iPhoto, iMovie HD, iDVD, GarageBand and iWeb.

Intel Core Duo Processors facilitate the installation of other Operating Systems such as Windows or Linux if required.

Expansion

All Apple Macs have external USB 2.0 ports, 6 Pin Firewire ports and all except Mac minis come with a built in iSight camera.

Relevant Web Sites

Apple

www.apple.com/support/hardware

The official Apple website, including information on iMacs, Notebooks, Mac Pro and Power Macs

ZDnet Apple section

<http://search.zdnet.com/?channel=56&cat=279tag=st.zd.srch.zdnet&q=apple>

News and information web site related to Apple products.

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