What is the internet?

The internet can be defined as a "network of networks". A single network consists of two or more computers that are connected to share information. The internet connects thousands of these networks so all of the information can be exchanged worldwide. Connections are typically made through a modem, a device that allows computers to exchange and transmit information through telephone lines.

A modem takes digital information and passes it through a series of steps to convert it to analogue signals or sound waves that can be passed over a telephone line. The process is reversed when the modem converts information coming in from the phone line. Modems transfer the information at a rate of bits per second (bps). A modem with high-speed capabilities will assure a faster connection on the Internet.

Once the computer is connected to the internet, it is called a local site, and the computers communicating with the local site are called the remote sites. Many remote sites are hosted by organizations called domains. Domains are designations that indicate the type of web site. For example:

- .gov – government
- .edu – educational
- .com – commercial providers.
- .org – non-profit organizations.
- .co.uk – company in the United Kingdom.

Internet Service Provider

Access to the internet is becoming easier to handle and cheaper to buy. An internet service provider (ISP) provides connectivity to the internet and offers services such as email, web hosting and filtering. An ISP effectively acts as the interface between computers, allowing data to flow between them regardless of location.

The two broad connectivity models offered by ISPs are dial-up and broadband. Dial-up establishes temporary connections via a telephone connection, which are created as required and continue to function until termination by either party. With a broadband connection the link is permanently on.
Most ISP connections use the traditional wired telecommunications network. Alternatives include data connectivity over the cable TV network, satellite connectivity and fixed wireless access where available.

Search Engine

A search engine is a programme designed to help find specific information, normally through a key word of a phrase, stored in the World Wide Web or a personal computer. It retrieves a list matching the criteria asked for a matter of seconds.

A search engine works in stages the first being web crawling followed by indexing.Web pages are retrieved by a web crawler, the contents of each page are then analyze to determine how it should be indexed

The most popular search engines used on the internet today are:

- Goggle.
- Yahoo
- msn search

Meta Search Engine

A Meta search engine is a search engine that sends users requests to other search engines or databases and returns the results from each one.

Extranet

An extranet is a private network that is used to share part of a business's information or operations with suppliers, vendors, partners, customers, or other businesses. An extranet can be viewed as part of a company's intranet that is extended to users outside the company.

An extranet is made up of web pages that are held on a server. The content of these pages may be similar or identical to those on the intranet. The extranet server must be connected permanently to the Internet with a public IP address. Users viewing pages on the extranet need to enter a username and password to gain access.

Different users, such as staff and pupils, can be given permission to view different areas of the extranet. These broad groups can also be split into smaller groupings pupils could be in year groups, and staff in departments or management groups.

New content for the extranet is written as a web page. The page may display information directly or it may carry links to other files such as word-processed documents. New pages added to the extranet have to be linked to existing pages to make them accessible.

An authorised user can access an extranet from beyond the physical boundaries of an organisation using any computer with an internet connection.

For educational applications, an extranet can allow staff and pupils to access the school or college intranet from their home computers via an internet connection.

Intranet

An intranet is a way of sharing private information and resources in the form of a web site among a group of related users, such as employees of a company or pupils and staff of a school. Users access an intranet using web browser software, which is just like accessing a conventional web site. They can follow links, browse pages and download documents from an intranet in the same way as they would from a web site.

An intranet can only be accessed from a computer that is directly connected to a private network, such as a school or college network.

Web Browser

A web browser is a software application that allows users to display and interact with text, images, and other information typically located on a web page at a website on the World Wide Web. Web browsers allow a user to quickly and easily access information provided on many web pages at many websites by traversing links,known as hyperlinks. Web browsers are the most commonly used type of HTTP user agent. Although browsers are typically used to access the World Wide Web, they can also be used to access information provided by web servers in private networks or content in file systems.

Web Sites

A web site is a collection a web pages linked together by hperlinks, enabling people to navigate from page to page. A website may be the work of an individual, a business or other organization and is typically dedicated to some particular topic or purpose. All publicly accessible websites in existence comprise the World Wide Web.

Websites are written in HTML (Hyper Text Markup Language) and are accessed using a software program called a web browser.

Web pages can be viewed or otherwise accessed from a range of computer based and Internet enabled devices of various sizes, examples of which include desktop computers, laptop computers, PDAs and cell phones.

Web Address

A web address is commanly known as a Uniform Resource Locator or a URLand it is the address of a resource on the internet. World Wide Web URL's being with http://.

The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located.

There is a special system for addressing Internet sites. The URL or Web address is typically composed of four parts:

- A protocol name , protocol is a set of rules and standards that enable computers to exchange information.
- The location of the site .
- The name of the organization that maintains the site .
- A suffix that identifies the kind of organization it is.

Email

Email is an electronic way of composing, sending, and receiving messages over electronic communication systems. Like a postal address, an e-mail address specifies the destination of an electronic message.

- An Internet e-mail address looks like this: user name@domain name
- The user name is a unique name that identifies the recipient.
- The domain name is the address. Many people can share the same domain name, such as hotmail.com or aol.com.

E-mail is sent and received through electronic "post offices" known as mail servers. While most messages go from computer to computer, e-mail can also be sent and received by mobile phones and PDAs. With e-mail, you can send or receive personal and business-related messages with attachments, such as photos or formatted documents. You can also send music, video clips and software programs.

Protocols.

Protocols is a code of behaviour for the internet. Serveral protocols cover the rules for sending information between two devices.

How the internet is policed?

As the internet is now widely international based and laws vary from country to country it has always been a problem to police the internet. The UK police can only deal with material found in their jursidiction for example Met Police only only deal with things found in Greater London.

The UK police can only deal with cases where:

- The people who created the material are in the UK
- The material had been published or downloaded onto computers in the uk.
- It might be evidence of offences committed in the UK.
- It might be evidence of crimes committed by UK citizens travelling abroad.

Police can only deal with offensive material that break the law. If reporting illegal material then there are several steps:

- The offensive material needs to be reported to the Internet Watch Foundation (IWF). They were set up int 1996 by major internet firms to focus on removing illegal based material of the internet.
- Offensive material is reported through the IWF hotline. It is then assessed and , if action is to be taken, the IWF notifies the service provider and the police.

The IWF is only able to deal with material that falls into the following three categories:

- Child Pornography located anywhere in the world
- Adult material that would breach the Obscene Publications Act, but only if the offending site or service is hosted or registered in the UK.
- Criminally racist material - but only if it is physically hosted in the UK

Biblolgrapghy

- http://www.met.police.uk/computercrime/index.htm
- http://www.iwf.org.uk/
- Internet Facts. Martin Noble. Starfire. ISBN 1-903817-95-1