

10.2 Effective Use of the Internet

Syllabus 2026 - 2028

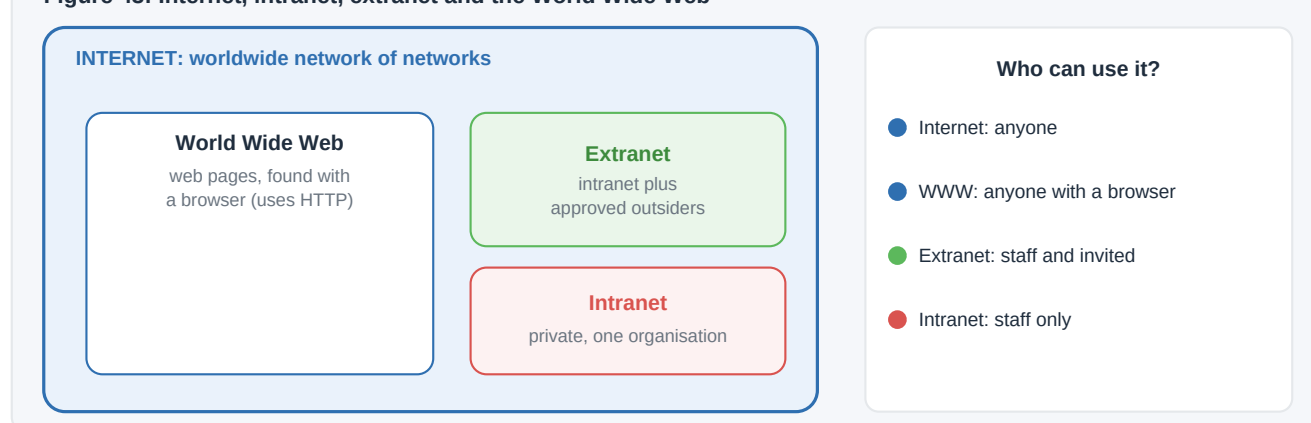
WHAT YOU NEED TO KNOW

- Characteristics, uses, advantages and disadvantages of the internet, including differences between the internet, intranet, extranet and WWW; blog, forum, wiki, social networking
- Functionality: ISP, structure of a web address, URL, hyperlink, web browser
- Use of search engines; evaluating information found on the internet
- Internet protocols: HTTP, HTTPS, FTP, SSL
- Risks of using the internet and controls: parental, educational and ISP controls

The internet and the World Wide Web

The **internet** is a huge worldwide network of connected networks. The **World Wide Web (WWW)** is the collection of web pages that is accessed over the internet using a web browser. The web is only one service that uses the internet, and email and file transfer are others.

Figure 43: Internet, intranet, extranet and the World Wide Web



Network	Description
Internet	Public worldwide network of networks
World Wide Web	Web pages and sites accessed through the internet
Intranet	Private network for one organisation, such as a school; only members can use it; usually safer and can be controlled
Extranet	Part of an intranet made available to approved outsiders, such as suppliers or parents, who log in

Uses, advantages and disadvantages

Advantages	Disadvantages
+ Huge amount of information	- Inappropriate and criminal material
+ Fast communication worldwide	- Information may be wrong or biased
+ Shopping, banking and learning from home	- Viruses, hacking and scams
+ Entertainment and media	- Privacy risks and cyberbullying
+ Cheap or free services	- Can be addictive and time-wasting

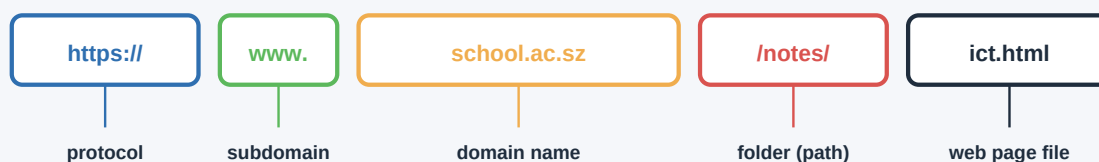
Online communities

Type	Description
Blog	A website of regularly updated personal posts by one person or a small group, shown with newest first, often with comments
Forum	An online discussion board where users post questions and replies on topics
Wiki	A website where many users can add and edit the content, such as Wikipedia
Social networking	A site where users create profiles, connect with others and share messages, photos and videos

How the web works

- **Internet Service Provider (ISP):** the company that provides access to the internet
- **Web browser:** software used to display web pages, for example Chrome, Edge or Firefox
- **Hyperlink:** text or an image that takes you to another page or part of a page when clicked
- **Uniform Resource Locator (URL):** the address of a web page

Figure 44: Structure of a web address (URL)



A URL tells the browser which protocol, server, folder and file to request

Search engines

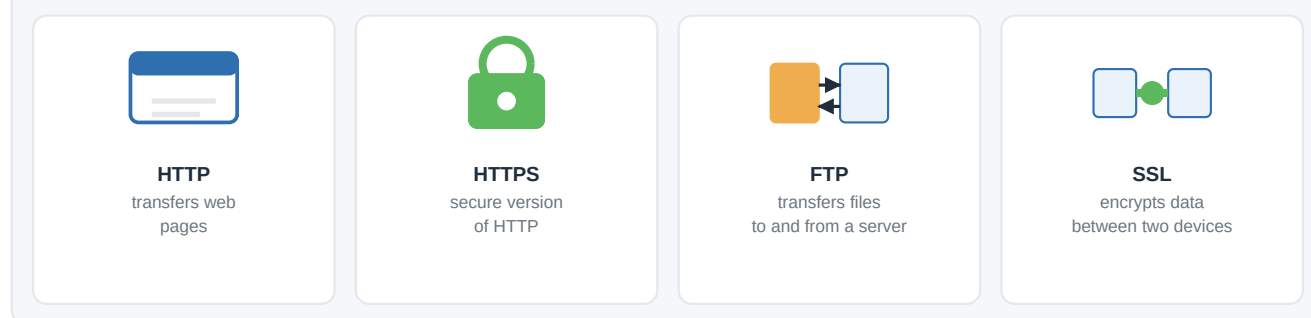
A **search engine** finds web pages that match the words typed in. It is quick and can search a huge number of pages, but results may be very many, may include irrelevant, out-of-date or unreliable pages, and may be influenced by adverts. Use precise key words, quotation marks for exact phrases and filters to find relevant, reliable information quickly.

Evaluating information from the internet

Check	Question to ask
Up to date	When was it written or last updated?
Reliable	Who wrote it? Is it from an expert, school or well-known organisation?
Biased	Is it one-sided, trying to sell or persuade?
Valid	Is it accurate, backed with evidence and agreed by other trusted sources?

Internet protocols

Figure 45: Internet protocols



- **HTTP**: HyperText Transfer Protocol, used to transfer web pages
- **HTTPS**: the secure variant of HTTP; data is encrypted; look for the padlock
- **FTP**: File Transfer Protocol, used to upload and download large files to and from a server
- **SSL**: Secure Socket Layer, which encrypts data sent between a browser and a server and shows that the site is genuine

Risks and controls

Risk	Control
Inappropriate material such as violence or adult content	Parental controls and filtering software to block categories of sites
Criminal material such as scams, hacking and illegal downloads	ISP controls that block known sites; report offensive content
Children contacting strangers; cyberbullying	Parental and school supervision; safe-use rules; privacy settings
Time-wasting or access to restricted sites in school	Educational controls: firewall, proxy server or filter restricting sites and times

EXAM TIP

Do not mix up the **internet** and the **World Wide Web**: the internet is the network, the web is the pages on it. An **intranet** is private; the internet is public.

Key terms

Term	Meaning
Internet	A worldwide network of networks.
WWW	Web pages accessed using the internet.
Intranet	A private network within an organisation.
Extranet	An intranet opened to approved outsiders.
ISP	A company that provides internet access.
URL	The address of a web page.
Hyperlink	A link from one page to another.
Browser	Software used to view web pages.
HTTPS	Secure version of HTTP.
SSL	Security protocol that encrypts web data.
Wiki	A website anyone authorised can edit.
Blog	A website of regular personal posts.

Practice questions

Answer each question in full sentences. Command words used: State (give a short answer), Describe (say what it is like), Explain (give reasons), Analyse (break it down and examine it), Suggest (apply your knowledge to a situation), Compare and contrast (similarities and differences), Evaluate (weigh up and reach a judgement).

No.	Question	Marks
1	State the meaning of the term ISP.	[1]
2	State two differences between the internet and the World Wide Web.	[2]
3	Describe the difference between an intranet and an extranet.	[3]
4	Describe the structure of a web address (URL).	[3]
5	Explain why HTTPS is used instead of HTTP on an online shopping site.	[3]
6	Analyse the advantages and disadvantages of using a search engine to find information.	[4]
7	Suggest four checks that can be used to judge whether information on a website is reliable.	[4]
8	Compare and contrast a blog with a wiki.	[4]
9	Explain how parental controls and ISP controls can reduce the risks of using the internet.	[4]
10	Evaluate the use of the internet by learners for their school research.	[6]

Total: 34 marks