

5 words to remember

- data packet:** a small set of numbers that get transmitted together via the internet (typically enough for 1000 or 1500 characters)
- hypertext mark-up language (HTML):** the main language used for the structure of websites
- hypertext transfer protocol (HTTP):** the procedure or rules for the request and transmission of HTML web pages between the browser and web server
- internet protocol (IP) address:** a numeric address that uniquely specifies computers directly connected to the internet
- web server:** a computer connected to the internet that stores web pages, and transmits these to web browsers as HTTP requests are received

People: Sir Tim Berners-Lee

Sir Tim Berners-Lee (born 1955) is a British computer scientist best known as the creator of the World Wide Web. Internet connections had been established in the late 1960s, but information-sharing was still difficult and slow. In 1989, Berners-Lee and his colleagues created a language called **HTML** to build better information pages. They also created the rules for sharing (**HTTP**) and made each webpage easier to find by giving it an address (uniform resource locator / URL). Together, he called this creation the World Wide Web. The web became publicly available in 1991.



Knowledge check: Hypertext mark-up language (HTML)

Hypertext mark-up language (HTML) is the main language for webpages, and it was created by Sir Tim Berners-Lee. It is the language that is used to write and create websites available to us on the web. The way the web page looks (colour, style, images) is the result of the code (HTML) that ‘sits behind’ the page.

The language is made up of text and is broken up with tags. Web-page content is added between opening and closing tags. Here are some common HTML tags:

Opening and closing tag	What it’s for?
<title> </title>	Where the title goes
<body> </body>	The bulk of the website
<h1> </h1>	The biggest heading size
<h6> </h6>	The smallest heading size
<p> </p>	Splitting paragraphs
	The link for an image (image tag)
 	Unordered list (bullet point)
<a href> 	Linking to another website (hyperlink reference)




- Test yourself:
- What is the difference between the opening and closing tags?
 - If you wanted to use a medium heading size, which HTML tag would be best?
 - Test out the ‘inspect’ tool on your school’s website. Which HTML tags have been used?

Key takeaways

- The internet and the World Wide Web are not the same thing. While both are about making connections, the web connects pages of information stored on different computers, and the internet connects the computers across the world.



- The internet is a global system of interconnected computer networks that connect computers and other devices. Connections are made using fibre optic, copper wire and radio. The internet has been around since the late 1960s.
- The World Wide Web refers to the digital pages (including their HTML code) stored on **web servers**. The web is a service provided via the internet and can be viewed using a browser, such as Google Chrome, Safari and Microsoft Edge.
- Organisations such as schools have a large network where many devices need to be connected and to have access to the internet. School networks include a server, network switches and routers.

		
router	network switch	server

- When someone searches for something online, behind the scenes the information is broken down into **data packets** to make it smaller. Data packets are all numbered to make sure they can be put back together in the right order once they reach their destination.
- Routers and **IP addresses** make sure that data packets are sent to the right computer.

Knowledge check: Web browsers

Test yourself: What is the difference between a web browser and a search engine? Can you name at least one example of each?