

**KS2**

# How do search engines work?

Part of [Computing](#) | [Computer science](#) | [Year 3](#) | [Year 4](#)

Add to My Bitesize

Jump to

[Searching the web](#)

[What are search engines?](#)

[How do search engines work?](#)

[Are all search engines the same?](#)

[How do search engines make an index?](#)

[How do search engines order results?](#)

[Activities](#)

## Searching the world wide web

The **world wide web** is made up of nearly **2 billion websites**.

Each has its own URL, or web address.

You'll know the **URL** of some of your favourite webpages. You use this to visit these webpages.

**What happens if you want to go to a webpage and you don't know the URL?**

Show answer



 [Back to top](#)

### What are search engines?



A **search engine** is a **program** that finds webpages on the web.

You type in the words that you want information on.

The search engine then looks for webpages that contain that information.

 **Back to top**

### How do search engines work?

A search engine is a bit like a **librarian**.

When you go to the library, you can ask a librarian to find books on your favourite topic.

The librarian searches through an **index** to find the books.

The index contains **key information** about each book in the library.

The librarian then tells you the **titles** of the books that they have found.



### How a search engine works



1 OF 5

 **Back to top**

## Are all search engines the same?

There are different **search engines** that you can use to help you find webpages. We use most **search engines** in a similar way.

We need to think about the words that we use in our searches. Typing in *wellington* will return information on:

- the capital city of New Zealand
- wellington boots
- a type of food

By adding extra words to the search, such as *Wellington, New Zealand* we can get more accurate results.

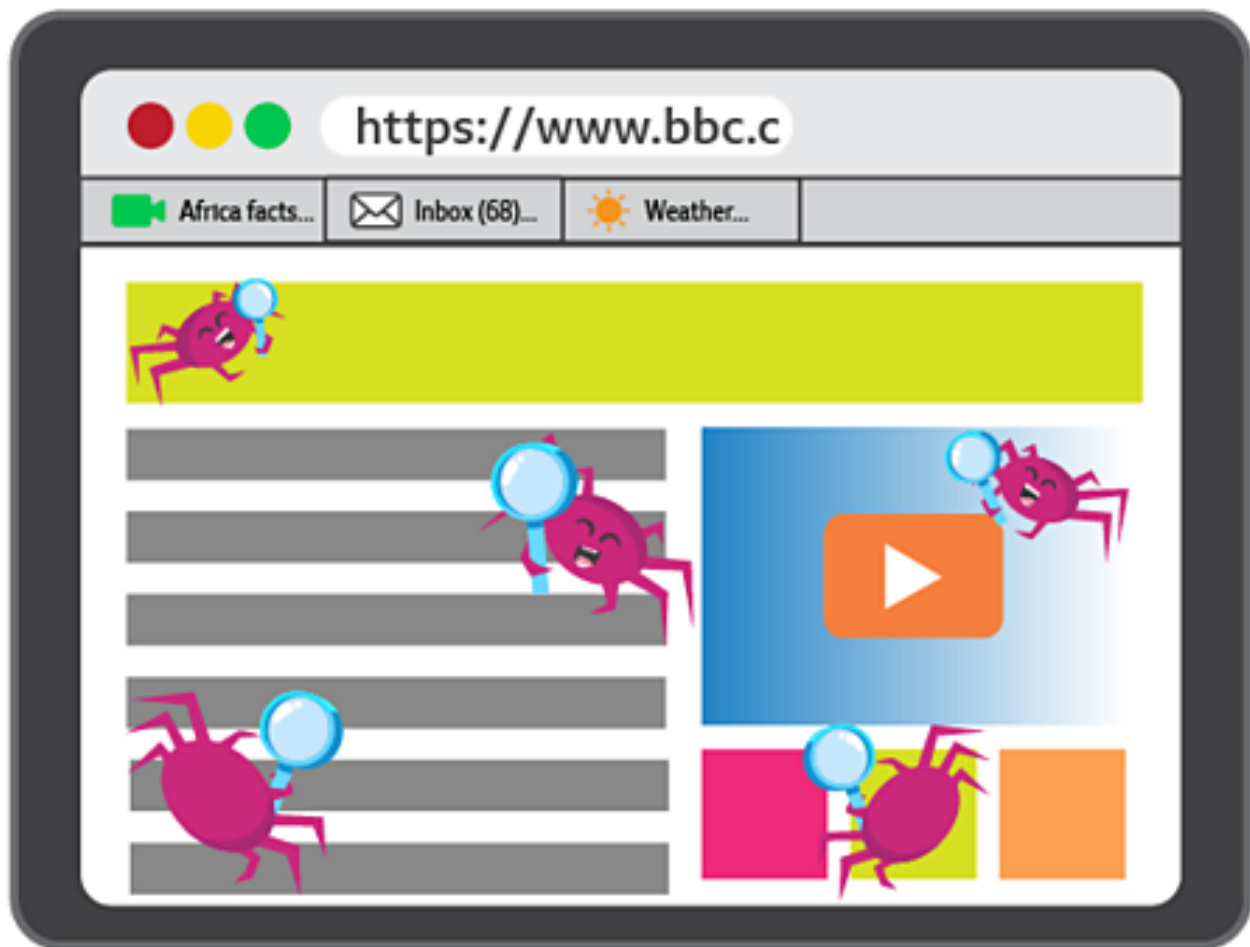
Some **search engines** only search for certain content. They might only search for news stories, facts or images.

Other **search engines** are designed for children to use. These **search engines** do not look at pages that are unsuitable for a child.



[⏮](#) Back to top

### How do search engines make an index?



A **search engine** makes an **index** using a **web crawler**.

A **web crawler** is an automated program that automatically browses the web and stores **information about the webpages** it visits.

Every time a **web crawler** visits a webpage, it makes a copy of the page and adds the **URL** to the **index**.

It also adds details of the content on the page, keywords and the type of media.

When you type words into a **search engine**, it searches its **index** for matches to your words.



 [Back to top](#)

### How do search engines order results?

**Search engines** use **algorithms** to order the list of webpages they return.

The webpages that are placed at the top of the list are usually the most useful to you. All the webpages have been visited by the **search engine's web crawlers**.

So the next time you use a **search engine** to find information, remember that **web crawlers** have created an **index** and an **algorithm** was used to rank the results.






 [Back to top](#)

**Activities**




 [Back to top](#)

There's more to learn...



Up next  
**Algorithms**





**What is the world wide web?**


This guide




**How do search engines work?**



**Algorithms**



**Story**



**Decomposition**

Explore the BBC

- CBBC
- Newsround
- Own It
- CBBC on TV

- CBBC iPlayer
- Bitesize
- CBeebies
- CBBC Help

- [Terms of Use](#)
- [Privacy Policy](#)
- [Accessibility Help](#)
- [Contact the BBC](#)
- [Advertise with us](#)

- [About the BBC](#)
- [Cookies](#)
- [Parental Guidance](#)
- [BBC emails for you](#)
- [AdChoices / Do Not Sell My Info](#)

Copyright © 2023 BBC. The BBC is not responsible for the content of external sites. [Read about our approach to external linking.](#)