

INSPIRE COMPUTING

International

Student Book

YEAR 3

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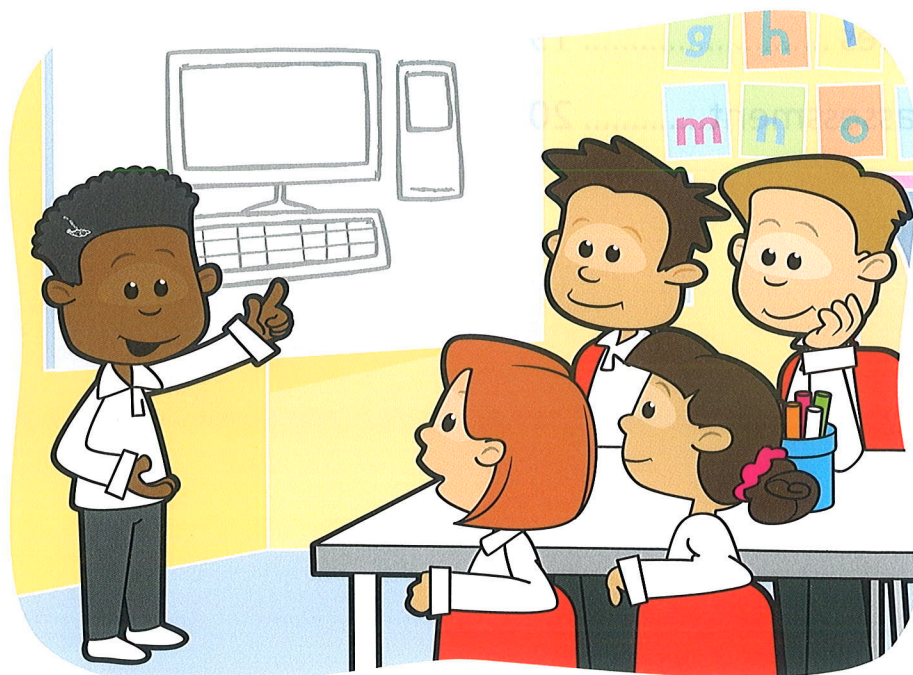
Glossary

Welcome to Inspire Computing

We are all living in a continually evolving digital world. By supporting learners in becoming confident and knowledgeable users of technology we can ensure you are prepared for the future.

Inspire Computing makes important topics accessible for all learners. You will understand how to stay safe online while still enjoying the freedom to explore the World Wide Web. You will delve deeper into understanding algorithms through creative approaches, exploring networks and systems, and create and film exciting animation projects!

Each topic includes easy to understand theory, real-world examples, and ideas for further investigation. You will also have the chance to show off your knowledge and understanding through supportive assessments and student checkpoints!



Key objectives

What you will know or be able to do by the end of the unit.

Unit 1

Online safety

In this unit you will learn about the form of inappropriate online behaviour known as cyberbullying. You will learn ways to identify it and discuss what to do if it happens to you or your friends.

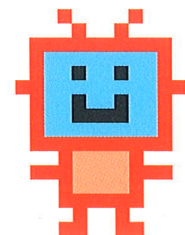
Then you will practise your learning by planning, scripting and recording a green screen video. You will use cropping and merging skills to edit your video.

Key objectives

- 🎯 To understand the risks and dangers of sharing personal information online, and to know what information you should never share online.
- 🎯 To understand the differences between bullying and cyberbullying.
- 🎯 To be able to recognise cyberbullying, how it affects its victims, and what to do if you experience it yourself or witness it happening to someone else.
- 🎯 To be able to create a green screen video from scratch, including writing the script, recording and editing.

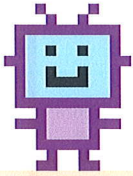
Introduction

Here you can find out what this unit will be all about.



In this lesson you will:

This is what you will know or be able to do by the end of the lesson.



Key vocabulary

Important words to know.

Lesson 9

Using a search engine efficiently



In this lesson you will use your skills to effectively use a search engine and collect your information.



Key words: paraphrase, plagiarism



Review your work from Lesson 8. Explain to your partner what you are going to research, how you are going to use a search engine and how you are going to present your research.

Now you can start your project by researching and saving the information you find. Remember to follow your school policy for online safety and make sure you know what you should do if you need help.

Remember to **paraphrase** (rephrase and rewrite) the information you find so you are not taking credit for other people's work. Pretending that someone else's work is your own and taking credit for it is called **plagiarism**.



Activity 1

Research your project using your planning. Record the information you find in a table.

Starter

An introduction to the activity or information to start a discussion.

Look out for these boxes for extra information and for key reminders.

- If the part you want to trim is in the middle of the clip (for example, a mistake) you will need to split the clip after the mistake. To do this, select the clip that contains the mistake and drag the red box to the beginning of the mistake. This will cut out the mistake.
- You will then need to **merge** the first and second parts of the clip as already described.

Pay attention to the location of the red line that shows the **timeline** when you import, **stop**, trim and edit your video. Swipe left and right to move your timeline along.



Activity 3

Edit any mistakes out of your video files on your device. Make sure you have merged the remaining video clips together.



Watch your finished video with a partner and discuss if you think you have cropped and edited the film well. Why or why not? What could you have done better?



I can use appropriate software or online services to meet the specified needs of a project.



I can import video files.



I can edit and merge video files.

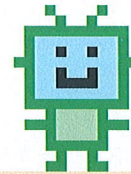
29

Activity

You may need to write or draw an answer. You may create a game or work with Scratch. You may work with a partner or on your own.

Refresher

To make sure that learning is secure.



Key vocabulary

Some tricky words are in **bold**. Find out what these mean in the Glossary at the back of the book.

Checklist








A handy list with the key parts of this lesson.

Unit 1

The World Wide Web

In this unit, you will learn about the World Wide Web and how search engines work. You will learn tips for searching the internet, as well as how to do research and take notes. Then you will use these skills in your own project. You will be researching facts for a non-chronological report about a current learning topic. You will store the information you find in a document in note form, using word processing software. You will be able to use these notes to make a presentation project to show your class.

Key objectives

-  To know about the World Wide Web.
-  To know what a search engine does and how to use them.
-  To be able to carry out research and make notes for a project.
-  To be able to enter, edit and format text in a word processor using a range of styles.
-  To understand the key features of a word processor and presentation software.
-  To be able to produce different types of document.
-  To be able to use presentation software.



Lesson 1

What is the World Wide Web?



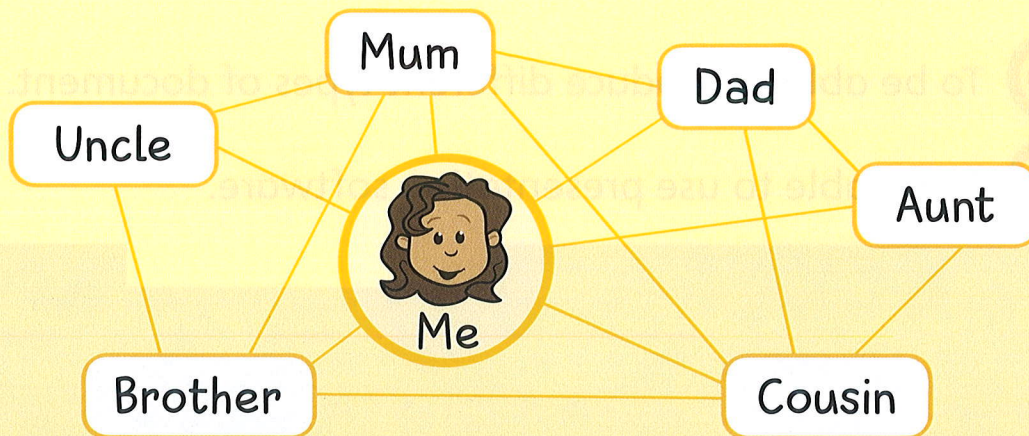
In this lesson you will learn what the World Wide Web (WWW) is and how search engines work.



Key words: internet, keywords, network, rank, search engine, web browser, web page, website, World Wide Web



Talk to a partner about how you use the internet at school and at home. Can you remember what a network is from your classwork in Year 2?



The **internet** is the international network of connected devices that allows us to communicate with each other around the world. The **World Wide Web** describes all the documents (called web pages) that are stored on the internet. We call a group of connected web pages a **website**. We use a piece of software called a **web browser** to read web pages. Many people confuse the internet with the WWW.

The text, images and videos we see in a web browser are part of the World Wide Web. The internet describes all the connected devices that allows this to happen.



Activity 1

Which of these sentences are correct?

I used the internet to send a message through an app.



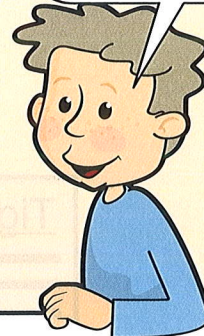
I used the WWW to send a message through an app.



The internet is really slow here.



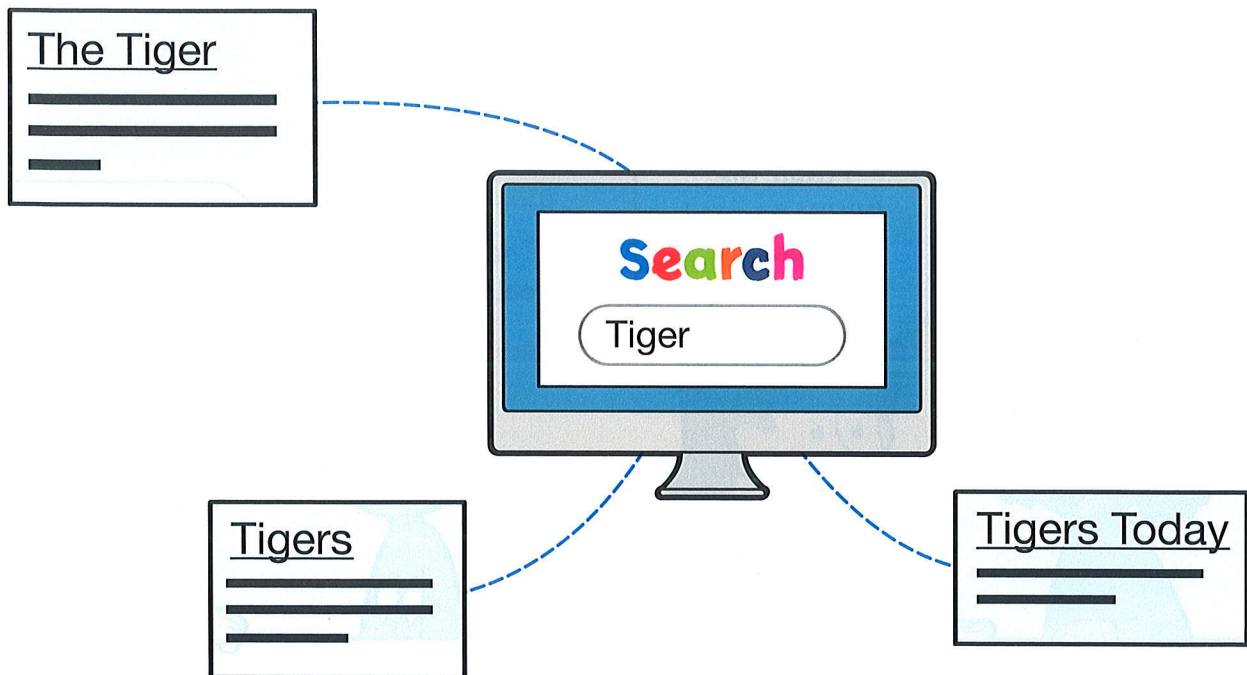
The WWW is really slow here.



Looking at web pages is one of many ways to access the internet. Email and instant messaging apps are two more examples.

We usually access the internet with a **web browser**. This is an application that displays a web page so that you can read it.

Currently, the WWW has about 2 billion websites, containing over 50 billion individual web pages! This can make it hard to find the information you need. When you want to find information on the WWW, you type key words into a **search engine**. A search engine is a web page designed to search the WWW using **keywords**.



Popular search engines include:

- Google™
- Microsoft Bing™
- Yahoo!™
- DuckDuckGo™

When you type in a keyword or keywords into any search engine, it searches the WWW in the following way:

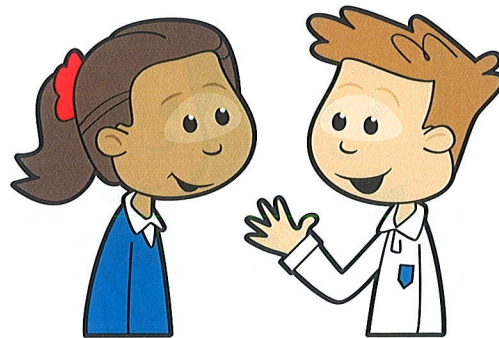
- how many times the keywords appear on the page
- how many links are on the page
- the title of the page
- words on the page that are similar to the keywords
- when the page was made.

The search engine ranks and orders the pages based on an algorithm (a set of rules and instructions) within the search engine. Each search engine has its own algorithm for presenting results.



Activity 2

Talk to your classmates. Other than your classroom computer, how many other devices can you think of that can display the WWW with a web browser?



Explain to your partner how a search engine works.



I understand how search engines work.

Lesson 2



Using a search engine



In this lesson you will practise your online search skills and learn how to stay safe online.



Key words: adverts, copy, keyword, paste, results list, search engine, web pages, World Wide Web (WWW)

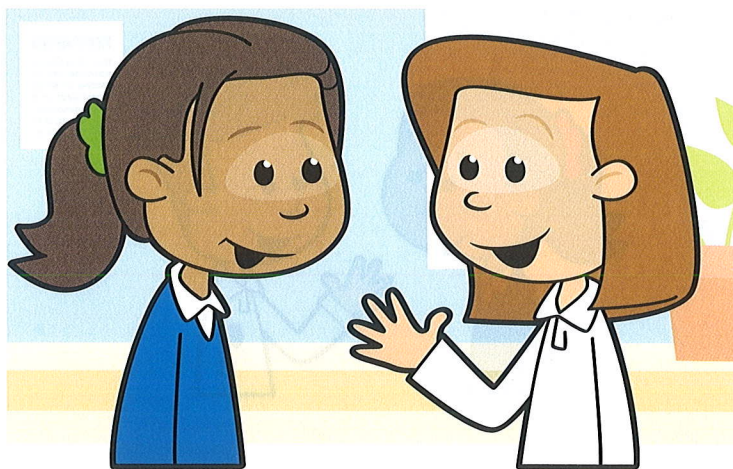


Talk to a partner about **search engines** and how they work. What can you remember? Use these key words to help you.

web browser

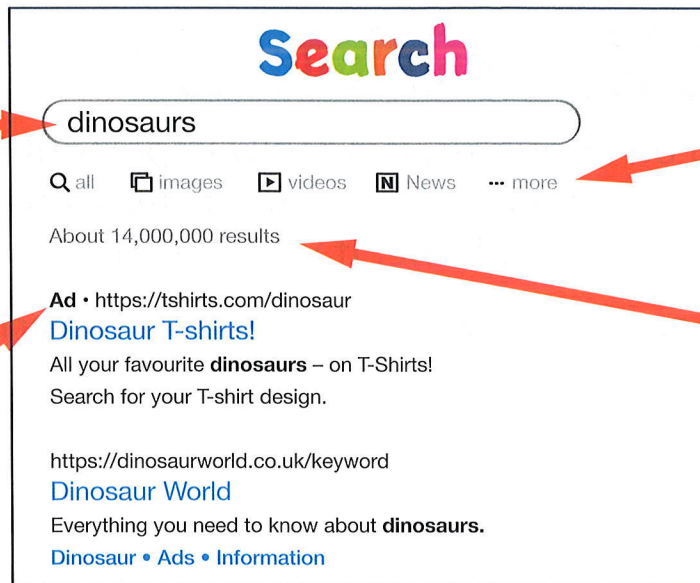
web pages

internet



Some companies pay **search engines** to place their website higher on **results lists**. Look for the word 'Ad' before the website address as these may not be the most useful links. Always scroll down until you find a website that looks most promising, rather than just choosing the first site on the list.

Enter your keywords here



You can search for different kinds of results

The first few results are often adverts

Most search engines show how many results they find

Online safety tips

You might see something online that makes you feel sad or worried. This might include:

- content written for older viewers
- information on a difficult or upsetting subject.

If this happens, tell a trusted adult such as a teacher or older family member.

Do	Do not
Tell a trusted adult.	Show other children or share the page address with others.
Turn off the screen until a trusted adult can assist you.	Walk around the classroom with the device.
If a trusted adult cannot be found, close the app or page and start again.	Use search keywords that might obviously display upsetting results.
Think carefully about your keywords; some words have more than one meaning.	Worry! This happens to everyone at some point when browsing the WWW.

Finding and saving information

When deciding on keywords, it is really important to think about the words and phrases you use. For example, imagine a project about the very first mobile telephone. If you search:

- 'Mobile phone' – this will display lots of advertisements and background information.
- 'First mobile phone' – this should be better, but results could still be improved.
- 'History first ever mobile phone' – this should display lots of useful results.

Sometimes adding the term 'for kids' can help find results from child-friendly sites.

When you find information on the **WWW**, you can **copy** and **paste** it into another document to save for later.

Open a new document and save it with a sensible file name.

If you are using a mouse:

- click and hold the left button at the start of the information you want to copy, drag to the end and then let go of the button
- right-click on the selection you made and select 'Copy'
- move to the document you opened
- right-click inside the document and select 'Paste'.

If you are using a tablet, you will need to use a long press. When you let go, the Copy and Paste options will appear.

This will put the copied text into your word document. It works for images too!



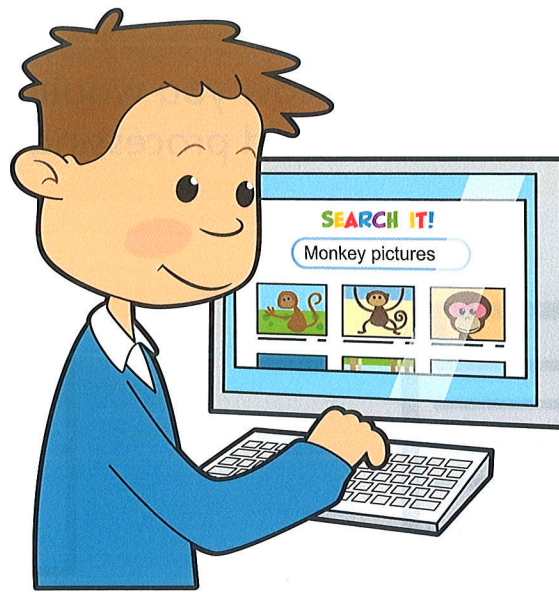
Activity 1

Choose two or three popular search engines, carry out the same searches and compare the results.

Also experiment with more keywords, for example:

'Dinosaurs'

'Dinosaur facts for kids'



Explain to your partner what you would do if you saw something that made you feel sad or worried online.



I know how to use a search engine.



I know how to copy and paste information from the WWW.

Lesson 3



Taking notes



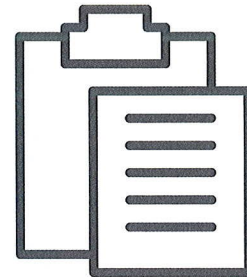
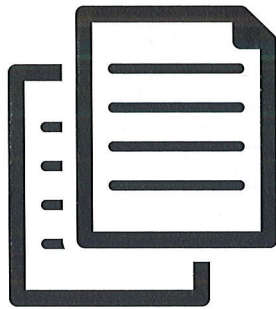
In this lesson you will learn how to take notes from the World Wide Web.



Key words: bullet points, copy, paraphrase, paste, plagiarism, take notes



Explain to your partner how you would **copy** and **paste** some information to a word processing document.

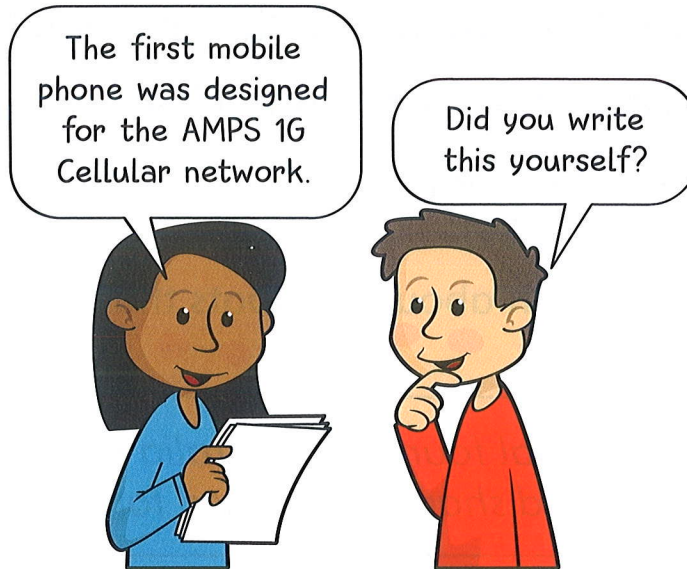


Copying and pasting information from the WWW is a quick way to remember what you find, but there are some things to remember:

- You might not understand what is written.
- It will not be in the same style as other text you have written.
- Pretending you have written something that somebody else wrote is a type of theft, called **plagiarism**.

To use the information you find on the web, you need to **take notes** and **paraphrase**.

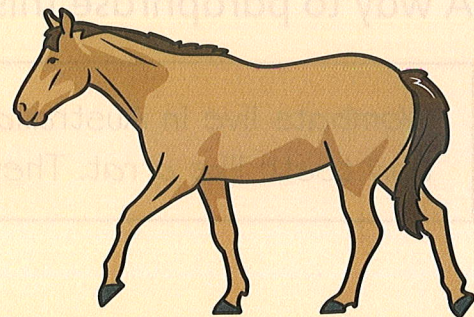
Paraphrasing means taking information and then saying it in your own words. To paraphrase, you need to make notes about what you find on the web, then write it in your own words so that you understand it.



Activity 1

With a partner, search online for some information about different breeds of horse. Once you have found a useful web page, take it in turns to paraphrase the information. Compare your notes.

- Have you both written down the same facts from the page, or different ones?
- Do your notes use different words to the ones in the original text?
- Are any of your notes too similar to the web page? (If they are, don't worry! It takes a little practice to learn to paraphrase correctly.)



Tips for taking notes

- Read the text and make sure you understand what it means.
- Look away from the text and talk it through in your head or with a partner. If you cannot do this yet, read the text again.
- Write the main ideas as notes, using **bullet points**.
- You can then rewrite, or paraphrase, the text in your own words so it makes sense to you.

Here is some information about wombats that someone else has written:

A wombat is an animal found in Australia with short legs, rat-like teeth and sharp claws used for digging.

Here are some notes we could take using the information:

Wombats

- live in Australia
- sharp claws for digging
- rat-like teeth
- short legs

A way to paraphrase this is:

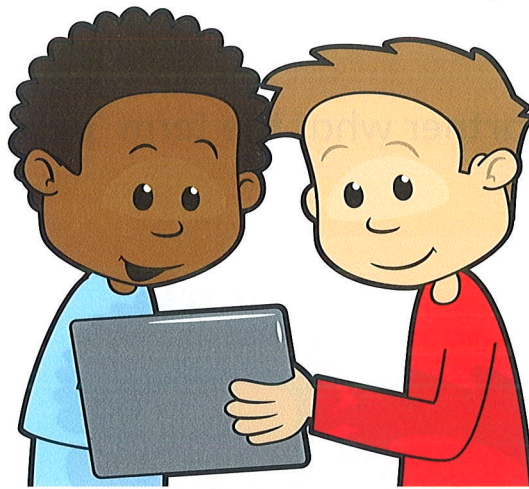
Wombats live in Australia. They have sharp claws for digging and teeth like a rat. They also have very short legs.



Activity 2

With your partner, go back to your research about horses from Activity 1. Now that you have read the tips for taking notes on page 14, find the web page again and paraphrase the information in a word processor. Can you do it better this time?

(Remember to write bullet points first!)



Which of these tools could help with note taking in a word processor?

- spell checker
- bullet points
- cropping
- pasting.



I can take notes from information found online.



I can enter, edit and format text using a range of styles.

Lesson 4



Formatting text



In this lesson you will experiment with text formatting skills for taking notes and presenting information.



Key words: bold, bullet points, font, italics, notes, numbered, points, paraphrasing, underline



Explain to your partner what the term '**paraphrasing**' means.



Font size and style

In a word processor, both original and pasted text can be formatted and styled in a number of ways.

Size

A ↗

Selected text can be made larger or smaller for impact. For example:

A ↘

The Tyrannosaurus rex has really **big** legs but really *small* arms.

Bold

B

Bold can make words stand out by making the word larger and darker. You can use it for important words and phrases. For example:

The tallest dinosaur was the **sauroposeidon**.

Underline

U

Underlining words can help them stand out. You can use it for headings or to highlight keywords. For example:

Types of dinosaur

Italic

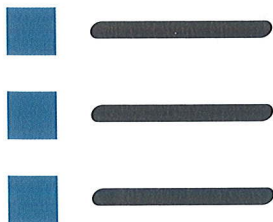
I

Italic makes words slant to the right. It is useful to make words stand out. For example:

A sauroposeidon could grow up to *18.5 metres tall*.

Text formatting tools

Bullet points



Bullet points are small dots or squares before words. They are useful for lists. For example:

The primary colours are:

- red
- yellow
- blue.

Numbered list



Using a numbered list puts numbers in front of the text. They are useful for lists when the order is important. For example:

To find information on the internet:

1. open a search engine
2. type in your key words
3. read the first few results.

Alignment



Selected text can be moved to the left, centre or right of the text area. For example:

This is left aligned.

This is centre aligned.

This is right aligned.