

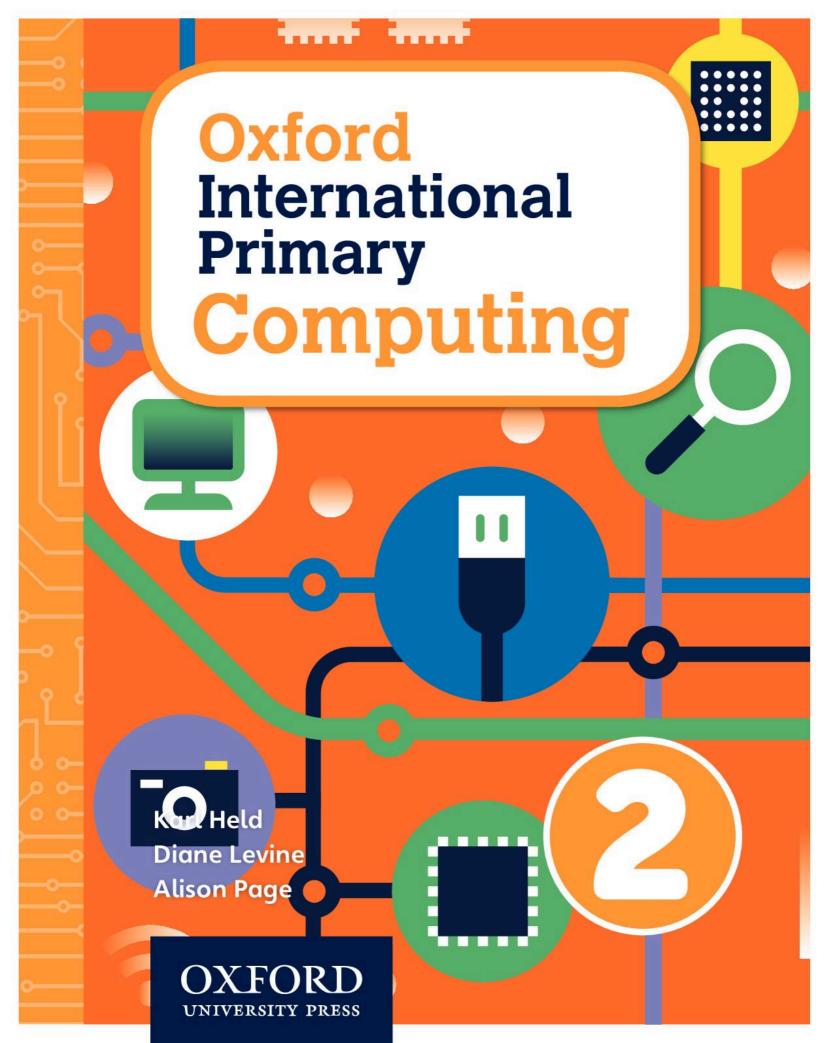
ASPIRE SUCCEED PROGRESS

Oxford International Primary Computing











Great Clarendon Street, Oxford, OX2 6DP, United Kingdom

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First published in 2015

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British Library Cataloguing in Publication Data Data available

978-0-19-830998-7

10987

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Printed in India by Manipal Technologies Ltd

Acknowledgements

The publishers would like to thank the following for permissions to use their photographs:

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Glossary

By the end of this unit you will:

- → know more about the keyboard
- know how to delete words and add full stops
- know how to add text and use line breaks
- know how to change the colour of a word.

In this unit you are going to make a travel brochure.

We can use words to persuade people to do things, such as go on holiday to a favourite place.

Using a computer can help us improve our writing and make sure we give all the right information. You are going to learn more about ways of making your words look special.

Activity Where would you like to go?

Where would you like to travel to? Make a list of all the places. Draw or cut out pictures from brochures of some of the places.



Talk about...

Do you have any special places? Where are they? Why are they special?

Fascinating fact

Niagara Falls is one of the top five most visited places on earth.

Using the keyboard

You will learn:

- > to find your way around the keyboard
- how to use the backspace key and space bar.

The QWERTY keyboard

Do you remember where the letters are on the **keyboard**?

Do you remember where the numbers are on the keyboard?

This type of keyboard is called a QWERTY keyboard – can you work out why?

- 1 This is the 'Caps Lock' key. Do you remember what it does?
- **2** This is the backspace key. You can use it to **delete** text.



3 This is the space bar. It makes gaps between words.

How to use the space bar

Find the space bar on your keyboard.

Press it quickly.

What happens to the cursor?

Now press it for a count of 1, 2, 3, 4, 5.

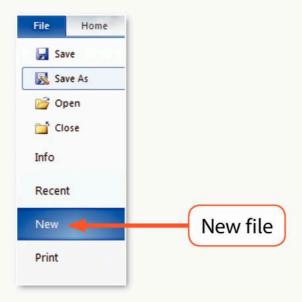
What happens to the cursor?

Remember, the cursor is the pointer.



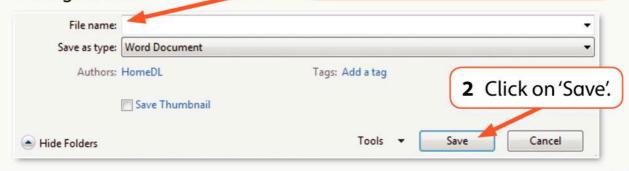
Activity Opening and saving a file

1 Open a new file.



- **2** Look at the words your teacher has given you. These are words you could use in your travel **brochure**.
- 3 Type the first word onto your page and press the space bar.
- 4 Do this for all the words.
- **5** Save your file.

1 Remember to name your file.



Talk about...

Think about which words would be good for your travel brochure.



If you have time...

Explain to each other what the travel words you have found mean.

Deleting and full stops

You will learn:

- how to delete words
- how to use full stops.

When we write, we use an eraser to remove a word.

When we type, we can delete a word to remove it. We can do this using the backspace key.

A full stop shows us it is the end of a sentence.

1 The backspace key



How to delete a word

Click on the end of the word you want to delete.

Press the backspace key until the word has gone.



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Activity Deleting a word



Open the document your teacher has given you.

Read the first line and find the word 'and'. Click the end of the word.

Press the backspace key until the word 'and' has gone.

Press the full stop key once to put in a full stop after the word 'park'.



Talk about...

You have made a sentence.
What do you need to do to the first letter of the next word?
How do you do this?

Activity Using 'Caps Lock'

Use the 'Caps Lock' key to start the next sentence with an upper-case letter.

Save your file.



If you have time...

Look through the rest of the writing to see if there are other places you could delete 'and' and make sentences.

Talk about...

Do you like the piece of writing? What would you change for your brochure?

Powerful words

You will learn:

how to add text to your page.

A travel brochure tells you information about a holiday or place. What sorts of information would you like to know?









How to choose the right words

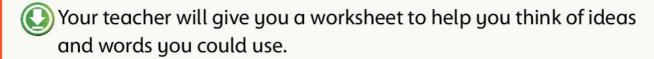
When we are trying to make a place sound exciting to someone else, we need to choose our words carefully.

Instead of saying the food is 'nice', it makes it more exciting to say the food is 'delicious'.

Activity Making your writing sound exciting

Work with a partner.

Open a new file.



Type two sentences.

Remember: each sentence should start with an upper case letter and end with a full stop. Put a space between each word.

Think about the sorts of words to use.

How can you make the place sound interesting and exciting?

Talk about...

Your teacher will share with the class some of the sentences you have written.

Which words work well?



If you have time...

Write some more sentences. Make your words sound tempting and interesting.

Line spaces

You will learn:

how to use line breaks.

Look at this text.

passport toothbrush sunglasses towel toothpaste pyjamas book games sandals hat T-shirt coat socks



Talk about...

How could we make this list easier to read and tick off?

We can use the 'Enter' key at the end of each word to start a new line.

This makes an easy-to-read list, like this:

passport

toothbrush

sunglasses

towel

. . .





You can use the **line break** to make line spaces between your sentences, too.

How to make a line break

1 Find the 'Enter' key on the keyboard.



This is the 'Enter' key, sometimes called the 'Return' key.

2 Move your cursor to where you want to make a line break in your text on the screen.



3 Click on the mouse and press the 'Enter' key on the keyboard.

Activity Making line breaks

Open your saved file.

Choose a place in your writing to try out a line break. Now continue to write the text for your travel brochure. Save your file.



If you have time...

Write a travel poem on screen. Use the 'Enter' key at the end of each line.

Making words look special

You will learn:

how to change the colour of the text.

We can change the colour of text to make it look more interesting.

Colours can have meaning.

Red text is often used to show danger.

Blue text might be chosen to show something is calm and peaceful.



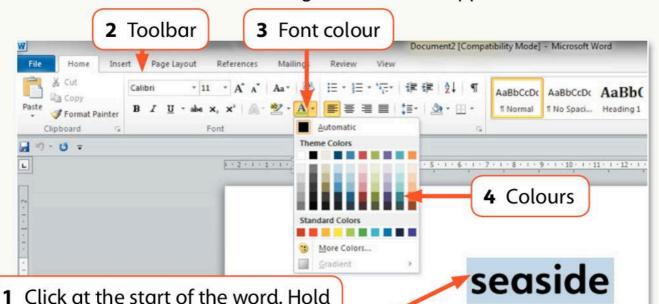
How to type a word in a different colour

- 1 Highlight the word you would like to change.
- 2 Look at the toolbar.
- 3 Click the font colour letter 'A'.

down the mouse button. Drag

along the word to highlight it.

4 Choose and click on a colour you like. What happens to the word?



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Activity Making different coloured words

Open your saved file.

Type some words in a different colour. The colour could match the place you are writing about.

What does it look like?

Save your file.



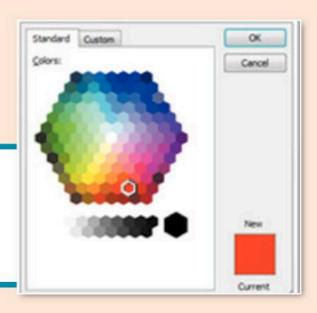
Talk about...

Which colours look good on the screen?



If you have time...

There are many more colours you can try. Find out how to do this.



Editing your writing

You will learn:

how to edit your work to make it better.

This is a page from a travel company brochure. It gives the reader information and makes them want to go on the holiday.



Talk about...

What features of the brochure do you like? Can you see any features you have learned how to use in this unit?

How to complete your writing

Open your saved file.

Read through your sentences carefully. If you see anything that looks wrong, delete it and type it again. This is called editing.

Save the file.

Book Now for a holiday filled with fun and adventure. We offer exciting programmes and activities for 4 to 10 year olds.



Activity Editing

Edit your writing. Use this checklist to help you.

- → Does each sentence start with an upper case letter?
- → Does each sentence end with a full stop?
- → Is there a space between each word?
- → Have you used colour to make the words look interesting?
- → Are there line breaks to help the reader?
- → Have you used words that make your place sound tempting to the reader?
- → Save your file.



If you have time...

Think about what you might have on the cover of your brochure.

What you have learned about working with text

You have learned about some new keys on the keyboard, how to delete words, make line breaks and type words in different colours and how to edit.

The activities on this page will let you see how much you have learned.

what do these words mean	•
• delete	

•	line	brea	k

edit

2 How can you make your words look special?

18

Activity Knowing the keyboard

Show your teacher where these keys are on the keyboard.

- → Caps Lock
- → space bar
- → full stop
- → Enter
- → backspace



2 Multimedia: Holiday images

By the end of this unit you will:

- know how to find and choose pictures to go with your words
- → know how to change pictures to make them look interesting
- → learn to put pictures and words together in one document
- → know what the parts of a page are.

In this unit you are going to make a poster for your favourite place.

Pictures can help people understand what we write about. We can use the computer to put words and pictures together on a page.

In this unit you are going to learn more about ways of putting words and pictures together.





Activity Choosing words and pictures

What words and pictures would you like to put on a poster about your favourite place?



Talk about...

What posters have you seen at school? And at home? And outdoors?
Can you describe them?

Fascinating fact

All the posters you see at the shops and in the cinema are designed using computers. And you can make one too!

Choosing Clip Art pictures

You will learn:

- how to find and choose pictures for your work
- how to put pictures in your work and make them fit.

Some programs have lots of pictures you can choose to put in your work. These pictures are called **Clip Art**.













Activity Finding and adding Clip Art pictures



Open the **template** in *Microsoft Word*. Your teacher will show you where to find the file.

Find a Clip Art picture that is right for each box in the template.

Insert the picture in the right place.

If the picture is too big or too small, resize it so that it fits.

Click on the place where you want to put your picture.



 Click the Clip Art icon here under the Insert tab.

4 Drag the handles at the corners to make the picture smaller or bigger. 2 This is where you can search for images using a word, such as 'transport'.

When you have found the picture you want you can use'Insert' to put it in your document.

Talk about...

Are some search words better than others? Is there a better word you could use instead of 'place'?



If you have time...

Write down the story that your pictures tell.

Where are you going?

Who with?

How will you travel there?

What will you do?

Words and pictures together

You will learn:

- how to put words and pictures together in one document
- how to move pictures and change their size so that they fit together well with your text.

Word-processing programs let you put words and pictures together. There are many ways you can put words and pictures together to make your work look good.



Talk about...

What are the things you must think about when you put images and text together?

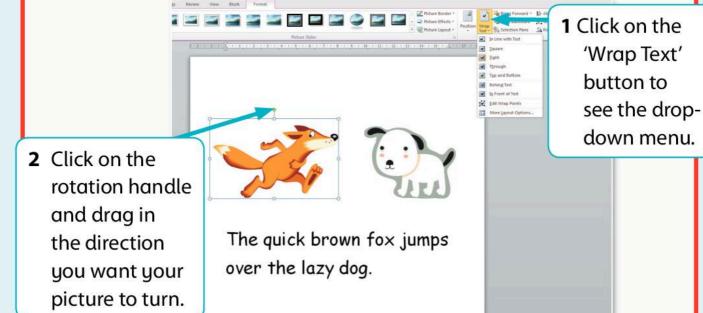
How to put a picture together with text

You can use the 'Wrap Text' menu to select how you want the text to surround the picture.

You can move your picture by clicking and dragging it to a new place.

Try turning your picture.

Can you remember how to make a picture bigger or smaller?



Activity Adding pictures to text

Open the template in *Microsoft Word*. Move the pictures onto the text. Watch how the text changes when you move the pictures over them.

Try resizing, moving and rotating the images.

Find the best way of putting the images and text together to make a nice **document**.

Using borders and effects

You will learn:

- how to add a border to your picture
- how to add effects to your picture.

Many programs let you change the way your pictures look. You can add borders and **effects** to get just the look you want. Adding effects to a picture means changing the colour or shape of the picture.

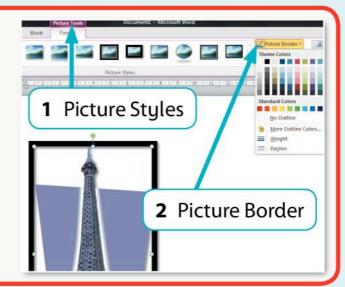


A border is a design which surrounds a picture.

How to add borders

In *Microsoft Word* you can add borders in two ways.

- You can choose a style of border in 'Picture Styles'.
- **2.** You can choose your border's type of line and its colour in 'Picture Border'.



Activity Border and colour

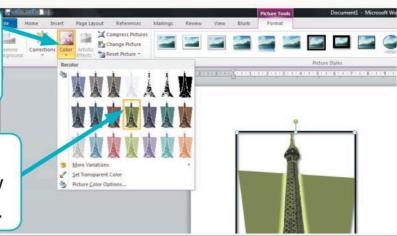
- Open the template in Microsoft Word.
- → Use 'Picture Styles' and 'Picture Border' to add your favourite border to the poster.
- → Use the 'Color' menu to change the colour of the hats.
- → Save your work.

How to add effects

You can add lots of different effects to your picture.

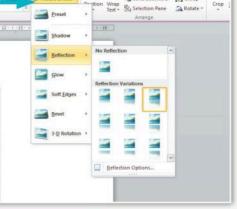
1 Use the 'Color' menu to change the colour of your picture.

2 Move the cursor over each effect to see how it changes the picture.



3 Use the 'Picture Effects' menu to add shadow, make glowing outlines, etc.





Bring Forward • 🕒 Align •

Send Backward + 🖟 Group +



4 You can use 'Artistic Effects'. Click here to make the picture look like a pencil drawing.





Using text boxes

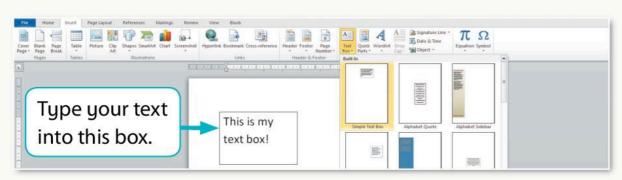
You will learn:

- how to add text in boxes and other shapes
- how to put text boxes and shapes together with pictures.

Putting text in boxes means you can put your text anywhere on the page.

How to add a text box...

In Microsoft Word you can choose different kinds of boxes for text.

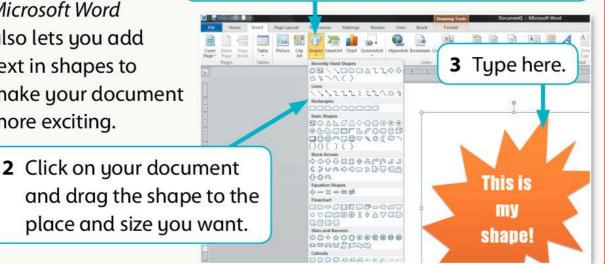


Use the mouse pointer to move and resize the box.

...or a shape...

Microsoft Word also lets you add text in shapes to make your document more exciting.

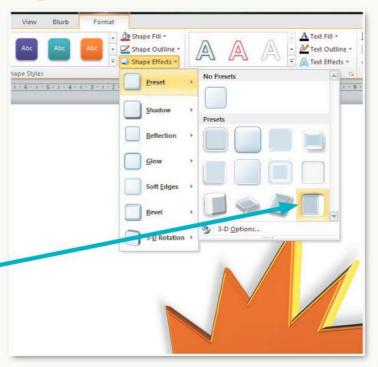
1 Choose a shape from the 'Shapes' menu.



...and change the way they look

You can change the way text boxes and shapes look by changing settings on the 'Shape Styles' menus – 'Shape Fill', 'Shape Outline' and 'Shape Effects'. Click the mouse to make the change.

Move the cursor over the change to see the effect.



Activity Adding text boxes



Open the template in Microsoft Word.

Find the right shapes and add them to the template. Add some text and change the size of the shape to make it fit. Now move the shapes into the best position.

Talk about...

Why might shapes with words in them be useful? Which shapes work best with words in them? Why?



If you have time...

Change the font of your text in each shape. Change the background colour to match the picture.

Using Word Art

You will learn:

- how to add Word Art text
- how to change the style of Word Art to make titles.

Microsoft Word lets you make **Word Art** to give text different shapes and different colours.

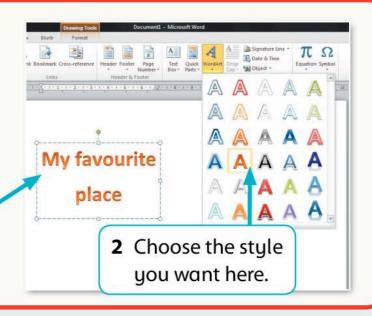


How to add Word Art...

Word Art is good for titles or headings on your document.

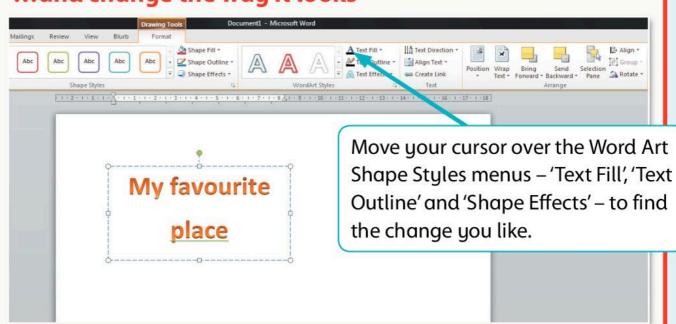
Move the Word Art box by dragging it. You can resize it too.

1 Type your text in the Word Art box.



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Activity Using Word Art

Open a new document in Microsoft Word.

Create three Word Art boxes, each with your name in it. Make sure all the Word Art boxes fit on the page.

In the first Word Art, change the text fill colour to your favourite colour.

In the second Word Art, add an outline to your text.

In the third Word Art, add a text effect from the menu.

Talk about...

What do we have to be careful about when using Word Art?



If you have time...

Give each Word Art in the activity a different font. Which is your favourite?

Designing a page

You will learn:

how to put text, pictures and Word Art together to make a poster for your favourite place.

Brochures, posters, leaflets and adverts give us information. We find it easier to understand information when it is properly organised.

This poster about Paris has many different parts. They are called **page elements**.

How to plan your page

- or magazine this is called a 'headline'. It should be large and easy to read. It should explain what the page is about.
- **2** Body text. This is the main part of the page.
 - 3 Pull quote. This is a text box or shape that lets you say the really important things.



I want to go to Paris with my mum, dad and brother.

Paris is the capital city of France!

We will go to
Disney. I won't
eat snails. I prefer cakes.

4 Image. The picture should relate to the body text.

The Eiffel Tower is a famous building in Paris.

5 Caption. This explains what your image is about.

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Activity Making a poster

- Open a new document in *Microsoft Word* and make a poster of your
 favourite place.
- → Make a title using Word Art.
- → Add a text box for the body text.
- → Find and add a Clip Art image.

An example of a brochure page showing different elements

Talk about...

What place did you choose and why?



If you have time...

Make a pull quote. Add a shape to your page and type into it. Add a caption to your image. Make a text box that fits below your image. Type in some text that describes your image.

What you have learned about multimedia

You have learned how to find and choose pictures to go with your words, how to change pictures, how to put pictures and words together and what the parts of a page are.

The activities on this page will let you see how much you have learned.

1 What do these words mean?

100	iat do triese words mean.
•	Clip Art
_	
•	template
•	effects

2 How can you make your words look special at the top of a poster?

34

Activity Making a poster

Make a poster about your school. Include these page elements:

- → a title
- → a text box
- → a picture
- → a caption.

Write down the name of each element next to it on your poster.



By the end of this unit you will:

- know how to use a search engine to find information online
- → know how to enter the right words to find useful information
- know how to check whether a web page is useful
- → know how to bookmark sites that are useful.

In this unit you are going to make a collection of bookmarks. You will mark sites with useful information about minibeasts.

The internet lets us look at websites. The collection of all the websites in the world is called the world wide web. A search engine lets us find useful sites in the world wide web. When we find a website that we like, we can use a bookmark to help us find it again.

Talk about...

Do you use a bookmark when you read a book? What do you think an online bookmark might be? Why could it be useful?





Search engines

You will learn:

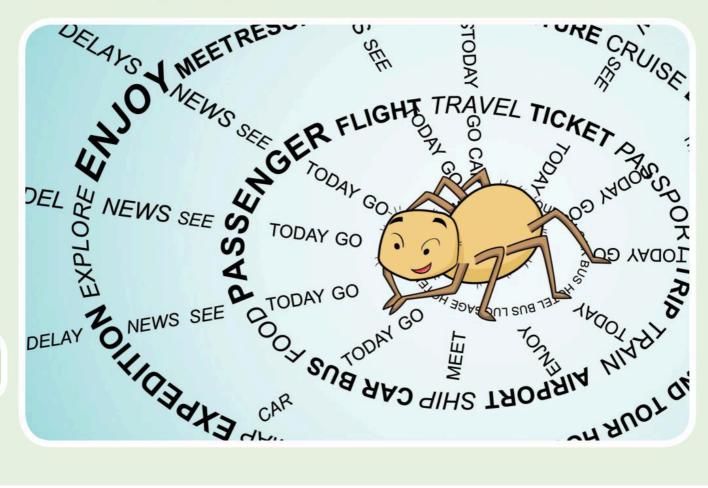
how to use a search engine to find information online.

How would you find a book on butterflies in this library?

The internet is like an enormous online library, with websites instead of books. We use **search engines** to help us find the websites we need.



Search engines send software robots called 'spiders' to visit websites. For each visit, the spider makes a list of words. The words become part of a big list. When we type a key word into a search engine, we are searching the big list.



How to use a search engine

Here are some different search engines. To search, type your key word into the space and press the enter key.







Activity Finding out about butterflies

Your teacher will type 'butterflies' into a search engine.

SEARCH

Click on the first website and explore it.



Talk about...

What did you find out about butterflies? Was it easy to find information? What did you like about the site?



If you have time...

Write down the **URL** of the website you have found. A URL is the name of the file on the internet.

Searching wisely

You will learn:

- how to put the right words into a search engine
- how to pick the right link from a search engine.

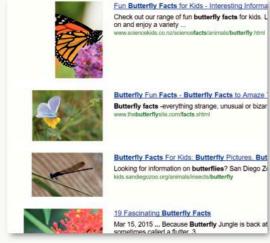
You have learned how to put a key word into a search engine. You found lots of useful sites. There are more ways to find the best sites for you. You can put extra words into the search engine. You can look carefully at the results page.

How to pick key words

You can put one word into the search engine. Sometimes putting more words will make your search better.

- → Ahmed wanted to find facts about butterflies. He typed 'butterflies facts'.
- → Mina wanted to find activities about butterflies. She typed 'butterflies activities'.

Each student found different sites.



A search for butterfly activities



A search for butterfly facts

How to find the right links

Your search engine might show advert links. Adverts often come at the top of the page.
They may be marked with the word 'Ad'.

You do not want to buy anything. So, miss out the advert links.

Your search engine might show Butterflies Habitat at Amazon - Save on Butterflies

Ad www.amazon.co.uk/butterflies+habitat v

Free UK Delivery on Eligible Orders

Ratings: Website 9.5/10 - Quality 9.5/10 - Returns 9.5/10 - Delive

**** rating for amazon.co.uk

Live Butterfly Garden

Ad www.findmeagift.co.uk/Butterfly_Garden •

Butterfly Growing Kit - £13.99. Low Prices, Fast Del, Buy Now! 1000s Of Gifts Online · Same Day Despatch · Next Day Del Availab

Gifts For Her Personalised Gifts
Gifts For Him Funny Gifts

Butterfly Habitat

Ad www.gardencentreguide.co.uk/Butterfly+Habitat v
Read Reviews And Compare Prices Of Butterfly Habitat
Over 50.000 Products · All UK Garden Centres

Adverts about butterflies

Activity Doing your own search

Search for 'butterflies facts' and 'butterflies activities'. What links do you find?

Think of another 'butterflies' search you can do.

Talk about...

When you do a search you see lots of links. How can we tell which link is best?



If you have time...

Click on some of the links you found. Which pages do you like best? Think of other searches you can do about insects you are interested in.

Evaluating a website

You will learn:

how to decide if a site is right for you.

A search engine shows you lots of links. How do you choose the best sites for you? You need to learn to evaluate the websites. **Evaluate** means 'decide on the value'. It means decide if a site is good for you.

How to evaluate a website

To evaluate a site, ask:

- → Can I understand it?
- → Is it useful?
- → Can I trust it?

Can I understand it? Wikipedia is a website for grown-ups. The facts on the Wikipedia page shown here are too hard for children to understand.

Is it useful? What do you need to find? Raafi wanted to know about butterflies in his own country. He found a site about butterflies in Australia and New Zealand. It is a good site but not useful to Raafi.

Can I trust it? This is a hard question. Your teacher will help you to know which websites you can trust.



Some facts about butterflies on the Wikipedia website



Raafi found this site showing facts about butterflies in Australia and New Zealand.

Activity What do you think?

Work with a partner. Each person finds a site about butterflies.

Evaluate the site your partner found.

Ask your partner to evaluate the site you found.

Talk about...

Some adverts are good. But we might not trust everything an advert says. Why not?



If you have time...

Write about a site you found. Write your evaluation of the site.

Bookmarks and favourites

You will learn:

how to use bookmarks or favourites.

A bookmark is a way of remembering a place in a book.

Online bookmarks are a way of remembering a place on the internet.

You have looked at web pages. The software you used is called a **browser**. The URL of a page is shown at the top of the browser. The web page appears in the window of the browser.



How to add a favourite

Every web browser has a way to add a bookmark. It is often a star in the top right of the browser window. A bookmark saves the URL of a page you might want to return to.

You can see the bookmarks you have made at the top of the browser.

Here is a bookmark

If you click on a bookmark the page will open in the browser.



Firefox browser – can you see the star?



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Activity Adding a bookmark or a favourite

Look at the website about beetles shown on your screen. Add a bookmark of the website to your computer.



Talk about...

What did you like about the website on beetles?

What did you not like?

Did you believe the information you found?

Did you find information easily?



If you have time...

Find three web pages with information about beetles. Bookmark them all.

A folder of favourites

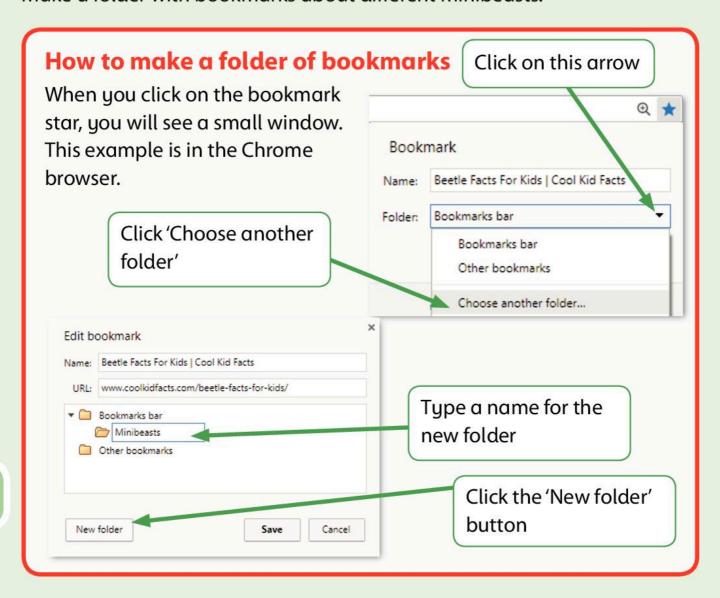
You will learn:

how to make a collection of bookmarks in a folder.

You have added a bookmark. You can see it at the top of your browser. The place where the bookmark appears is called the **bookmarks bar**.

What if you want lots of bookmarks? They won't all fit in the bookmarks bar.

You can keep bookmarks in a store called a 'folder'. In this lesson you will make a folder with bookmarks about different minibeasts.



In this example the new folder is called 'Minibeasts'.

The folder of bookmarks is in the bookmarks bar.

Here is the new folder



Activity Making a folder

Find web pages with information about ants and spiders. Bookmark the best pages you find. Make a folder to store all the bookmarks about minibeasts.

Talk about...

Show the pages you have bookmarked to the rest of the class. Look at other students' choices. Which pages are the best?



If you have time...

Make a list of all the pages in your minibeasts folder. Which is your favourite page? Give each page a mark out of 10.

Exploring a bookmarked site

You will learn:

to find new pages in a site you have bookmarked.

A website has lots of web pages. You have bookmarked some pages. Now see if the same website has other good pages.

Two features that might help you search a website are:

- → menu
- site search.

How to use a menu to find more pages

Click on a bookmark to go back to a web page you liked.

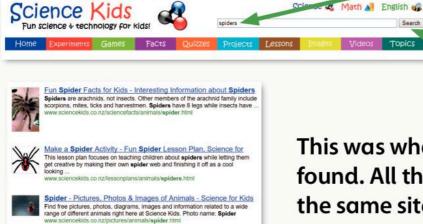
Many websites have a menu. The menu might be at the top of the page. It might be on the left.



This menu is at the top of the page. Click on a word in the menu. You will see more information about that topic



Some websites have their own search engine. You can type a key word just as you would in a normal search engine. It will find pages on that website.



The student typed 'spiders'

Then clicked 'search'

This was what the student found. All the links are to the same site.

Activity Exploring the site

Look in your bookmark folder. Click on a bookmark.

Does the site have a menu?

Does it have a search engine?

Find more pages on the same website. Add new bookmarks to your folder.

Talk about...

Why go back to a site you found before? What is good about doing that? What is not so good?



If you have time...

You have done a web search about minibeasts. Think of another web project and make a new folder of bookmarked links.

What you have learned about the internet

You have learned about search engines. You have learned to bookmark a site. You have learned to evaluate a site.

The activities on this page will let you see how much you have learned.

A student wanted to find out information about bees. She found two pages.



Page A Page B

1	Which web page is best for the student – A or B? Say why.				

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2	Here is another page the student found. Is this a good page for her? Say why.	
		Five pure beeswax blocks – 100% natural beeswax. Perfect for candle and soap-making
3	The student decided to bookmark the page sh does 'bookmark' mean?	ne liked best. What

Activity A search for facts about dolphins

- 1 Type 'dolphin' into a search engine and look at one site about dolphins.
- **2** You want to find out what dolphins eat. Enter a search to find this out.
- **3** Make a folder of bookmarks to web pages about dolphins. Only include useful pages that are easy to understand.
- **4** If you have time, evaluate one of the pages you found. Write down your evaluation.

4 Handling data: Spreadsheet maths

By the end of this unit you will:

- → learn what a spreadsheet is
- know how to use a spreadsheet to work out the answer to sums
- → learn why a spreadsheet makes sums easy to do.

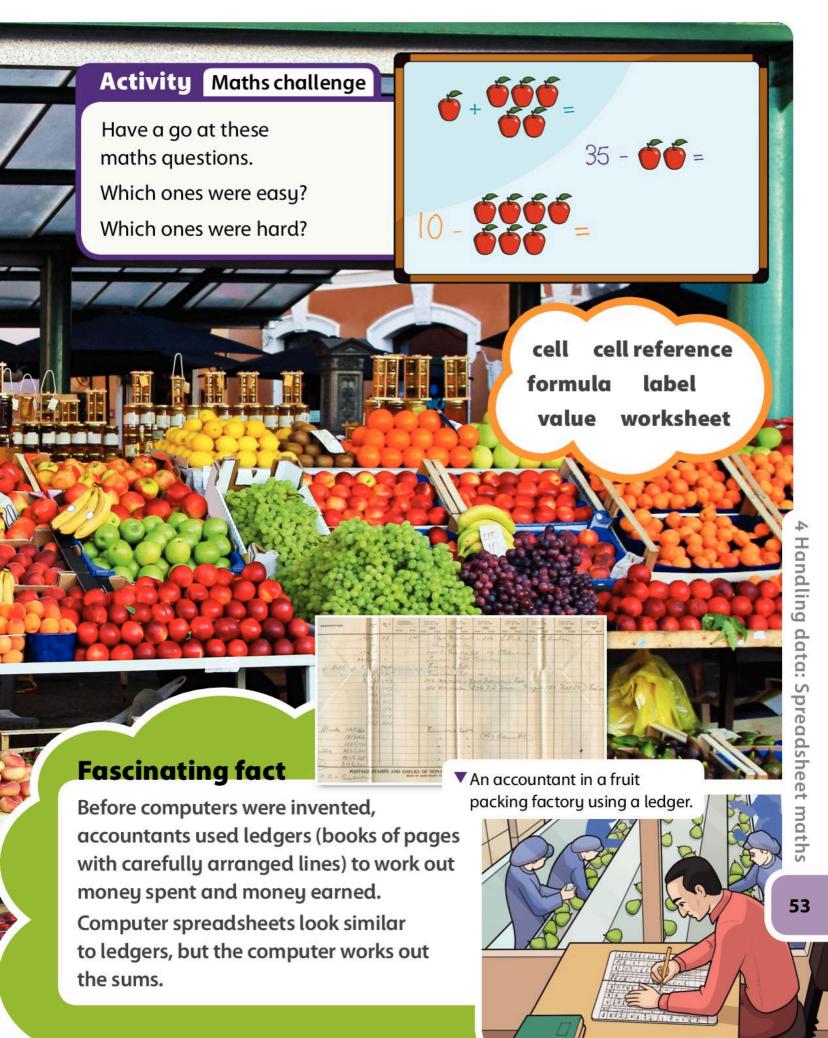
In this unit you are going to use a spreadsheet to do sums.

A spreadsheet is a computer tool. It will work out the answers to sums. You will use a spreadsheet that has been made for you. Then you will make a spreadsheet of your own.

Talk about...

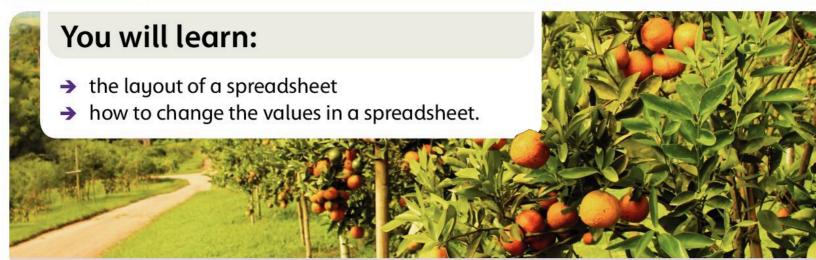
Look at your maths books for this year.

Talk about the different maths topics you have studied. Which topics do you think a spreadsheet would be helpful for?





Adding numbers together

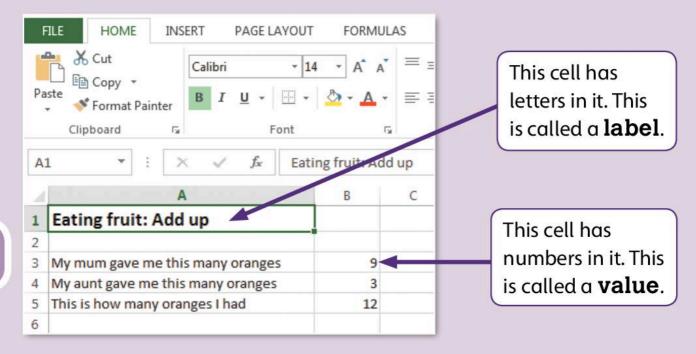


A spreadsheet has been made for you to use. Your teacher will show you how to open the spreadsheet.

You will see the spreadsheet on your screen. It shows an addition sum like the sum on this whiteboard.

The spreadsheet is made of columns and rows. Each column has a letter. Each row has a number.

Where a column crosses a row, this makes a **cell**.



How to change the contents of a cell

1 Move the mouse cursor to the cell.

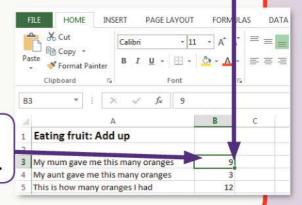
2 Click the mouse button to select the cell.

3 Type the new value or label.

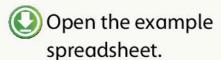
4 Press the 'Enter' key.

Cell B3 is selected. This cell is called B3 because it is where row 3 crosses column B.

The number 9 is in cell B3.



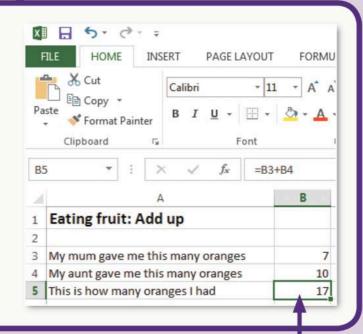
Activity Entering new values



Click on cell B3. Type the number 7. Press the 'Enter' key.

Click on cell B4. Type the number 10. Press the 'Enter' key.

Save your work in your own storage area.





If you have time...

Try entering different numbers in cells B3 and B4. See the results of these changes.



The answer to the addition sum is shown here.

You will learn:

- what a worksheet is
- → how to select different worksheets.

The grid that you see on the screen is called a **worksheet**. A spreadsheet file can have more than one worksheet.

À			A		В
1	Eating 1	fruit: Ad	d up		
2					
3	My mum	gave me th	nis many orang	ges	9
4	My aunt g	gave me th	is many orang	es	3
5	This is ho	w many or	anges I had		12
	+ ->	Add	Take away	Times	Sharing

These four tabs show that this spreadsheet file has four worksheets.

How to see the worksheets

Open your saved spreadsheet file.

To see the different worksheets,
click on the different tabs.

1 Click on the tab 'Take away'.

	A		В	C
1	Eating fruit: Take away			
2				
3	I had this many grapes		12	
4	I ate this many grapes		7	
5	This is how many grapes I had left	· T	5	
	Add Take away	Times	Sharing	

2 This spread shows a take away problem. You start with 12 grapes, you eat 7.



3 You have 5 grapes left.

Activity Taking away

Select the 'Take away' worksheet. Use the spreadsheet to do a take away calculation. 1 Change the number of grapes you start with. Press the 'Enter' key.

Ż	A	В
1	Eating fruit: Take away	
2		
3	I had this many grapes	99
4	I ate this many grapes	71
5	This is how many grapes I had left	28
6		•
7		
8		

2 Change the number of grapes you eat. Press the 'Enter' key.

3 See how the final value has changed.



If you have time...

Look at the other worksheets in this spreadsheet file. Make changes to the values on those worksheets and see what happens.

Talk about...

Have you used a calculator? How is a spreadsheet different from using a calculator?



Multiplying numbers

You will learn:

- what cell references are
- how cell references are used in formulas
- → the signs used in formulas.



Remember

Every cell in a worksheet has a name.

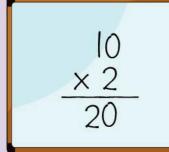
The name is made of the column letter and the row number.

This name is called the **cell reference**.

Look at the 'Times' worksheet.

It shows a multiplication problem.

3 The cell content is shown here.



2 The cell reference is shown here.

B	3 • E × • f _x	2	
1	Α	В	С
1	Eating fruit: Times		
2			
3	Every pupil in my class gave the teache	er 2	apples
4	How many pupils in the class	10	
5	How many apples for my teacher	20	

1 This cell is selected.

You have learned that spreadsheet cells contain values and labels.

Some spreadsheet cells contain **formulas**.

Formulas work out the answers to calculations. Every formula begins with an equals sign.

2 The cell content is shown here. It is a formula.

B.	B5 ▼ : × ✓ f _x =B3*B4			
à	A	В	С	
1	Eating fruit: Times			
2				
3	Every pupil in my class gave the teach	ner 2	apples	
4	How many pupils in the class	10		
5	How many apples for my teacher	20		
6				
7	1 This cell is selected.			

How to understand formulas

The formula says:

$$= B3 * B4$$

* stands for **times** (multiply)

So the formula says:

The number in cell B3 times the number in cell B4.

Talk about...

There are four signs used by formulas. They are:

+ - * /

What do these four signs stand for?



Activity Finding formulas

Look at all the worksheets.
Write down all the
formulas you can find.

Next to each formula write down in words what you think the formula says.



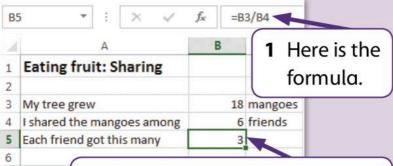
Division and decimals

You will learn:

- → how spreadsheets show division
- about decimals and fractions.

On the 'Sharing' tab you will see a division problem. Eighteen mangoes are shared among six friends – how many does each get?

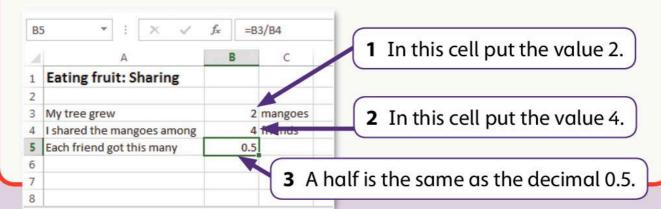




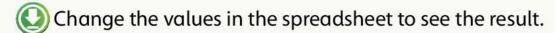
2 Here is the answer. Each friend gets three mangoes.

How to share (fractions and decimals)

If you change the values in the spreadsheet, the answer will change. Not all the answers will be a whole number – some will be part of a whole. If two mangoes are shared between four friends, each friend will have half (1/2) a mango. Half is a fraction.

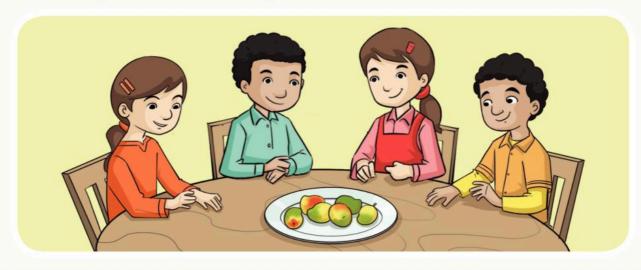


Activity Sharing



Try these values. Write down the problem and the answer you get.

- → 3 mangoes shared among 6 friends
- → 2 mangoes shared among 8 friends
- → 6 mangoes shared among 4 friends.



Talk about...

Every fraction has a matching decimal. Here are some examples:

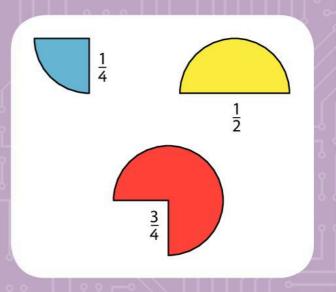
One quarter
$$= \frac{1}{4} = 0.25$$

One half
$$= \frac{1}{2} = 0.5$$

Three quarters
$$=$$
 $\frac{3}{4}$ $=$ 0.75

One and a half =
$$1\frac{1}{2}$$
 = 1.5

What other fractions have you learned about?



Make your own spreadsheet

You will learn:

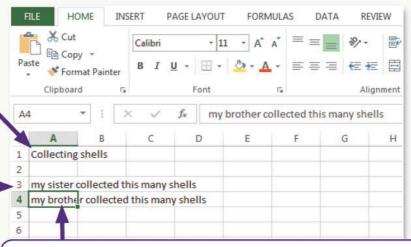
- → how to enter values and labels into a spreadsheet
- → how to create a new spreadsheet.

How to enter labels on a new spreadsheet

Start with a new blank spreadsheet file. You are going to add labels to this spreadsheet.

If a label is too big for a cell, it spills over into the space that follows.

- 1 Select cell A1 and type 'Collecting shells'. Press the 'Enter' key.
- 2 Select cell A3 and type 'my sister collected this many shells'. Press the 'Enter' key.

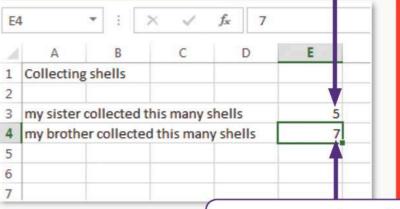


3 Add this label to cell A4. Press the 'Enter' key.

How to enter values

When values are typed into a cell, they move to the right of the cell. When text does this it is called right-justified. What do you think left-justified means?

1 Enter 5 in this cell.



2 Enter 7 in this cell.

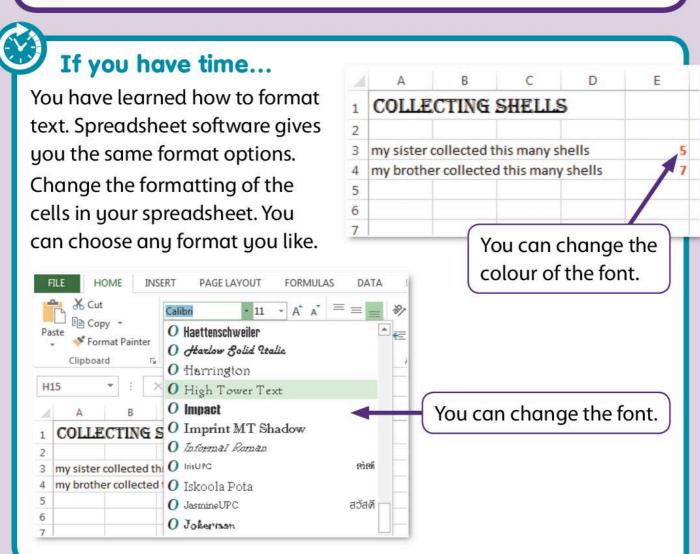
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Activity Creating a spreadsheet

Create the spreadsheet about collecting shells by entering labels and values into the cells.



Save your work.



Talk about...

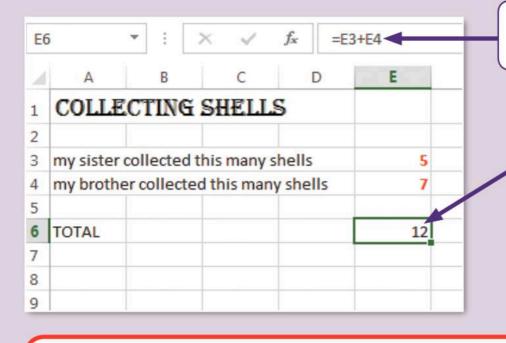
Why do spreadsheets have labels as well as values? Labels are not used in formulas – so why are they useful?

Creating a formula

You will learn:

- → how to use a spreadsheet formula to work out a result.
- This is a spreadsheet made by a student. Like you, this student has entered labels and values.

This student has also entered a formula to work out the total number of shells.



- 1 Here is the formula the student entered.
 - **2** Here is the result of the formula.

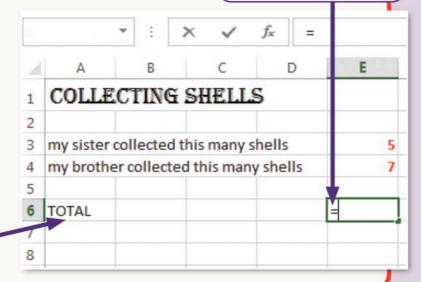
2 Type an equals sign here.

How to start a formula

First, you must enter a label. Select cell A6. Type 'TOTAL' and press the 'Enter' key.

Next, you must enter the formula. Every formula starts with an equals sign.

1 Type 'TOTAL' here.



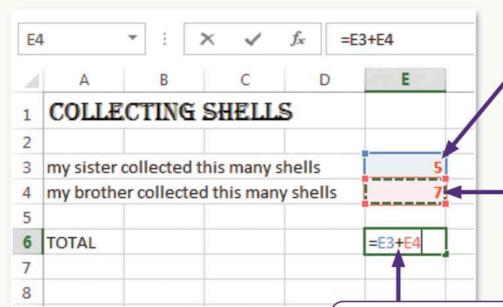
How to build a formula

To build a formula you add cell references.

Remember

To add a cell reference to a formula, you must click on that cell.

Press the 'Enter' key when the formula is complete.



- 1 Click on cell E3, and E3 will be added to the formula.
- 3 Click on cell E4, and E4 will be added to the formula.
- 2 Type the plus sign in the formula.

Activity Building a formula



(🗘) Enter the 'TOTAL' label.

Enter a formula to work out the total number of shells.



If you have time...



Make a bigger spreadsheet which adds up the shells collected by four different people. Enter labels, values and a formula.

What you have learned about handling data

You have learned how to use spreadsheets to work out the answers to maths problems.

The activities on this page will let you see how much you have learned.

1	What are the small squares in a worksheet called?
2	What is a worksheet?
3	What do the labels in a spreadsheet do?
4	A cell reference has one letter and one number. What do the letter and number tell you?
5	What sign comes at the start of a spreadsheet formula?
6	What does this sign (*) mean?
7	How do you add a cell reference to a formula?

Activity Labelling a spreadsheet

- Your teacher will give you a resource sheet that shows this spreadsheet.
 Add labels to show:
 - → a label
 - → a value
 - → a formula
 - → the result of a formula.

D.	7	* :	× -/	f_x	=D3+	D4+D5
d	А	В	C	1	D	E
	Catching fi	sh	1			
!						
1	Ali catches this many fish				44	
ļ.	Reza catches this many fish			29		
i	Khadija catches this many fish				36	
į						
	TOTAL FISH	4		-	109	
1						
1						

Activity Writing a spreadsheet formula

Where is a spreadsheet that works out how many cookies you have left. Use the skills you have learned to make this spreadsheet. Enter the formula that will work out the result.

D6 ▼		i ×	~	f_{x}	=D3-	D4
À	Α	В	C	[E
1	Friends and	cookies				
2						
3	I had this many cook		25		9	
4	I gave this many to m		friend		4	
5						
6	I had this m	any left			5	
7						



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5 Computers in society: Technology at work

By the end of this unit you will:

- understand how different people use technology
- → learn to ask someone questions about how they use technology in a polite way
- → know how to share a piece of equipment
- understand how to share what you found with others.

In this unit you are going to find out how people use technology to help them in their work.

We all use technology to help us do everyday things. We use technology when we phone a friend, go on the computer or put washing in the washing machine.



Activity Finding technologies

Look at the technologies in the picture. Take photos, draw or cut out pictures from catalogues to show as many different technologies as you can.



interview problem
question recording
technician technology

Fascinating fact

Most people blink their eyes around 20 times per minute, while a computer user only blinks around 7 times per minute. Blink!



How we use technology

You will learn:

how we use technology in everyday life.

Here are some people who use technology in their daily lives. They are using technology to solve **problems**.







▲ doctor

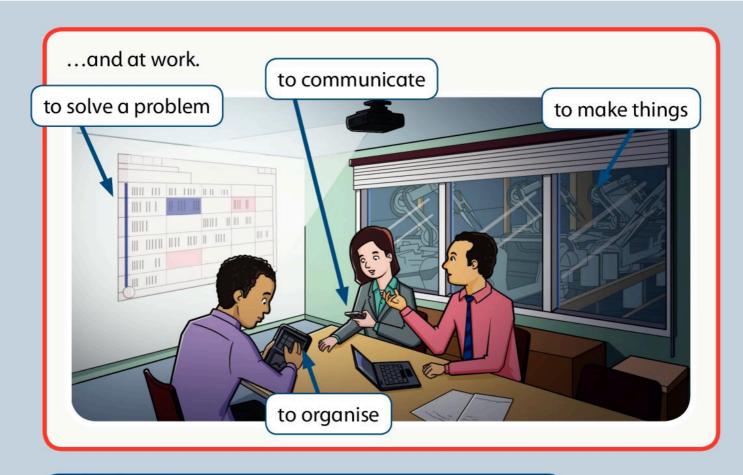
▲ teacher

▲ engineer

How do people use technology at work?

People use technology in different ways at home...





Activity Looking at technology in the workplace

Look at the worksheet your teacher has given you. Carry out the activity.

How is technology helping these people?

Talk about...

What kinds of technology do you think are used most often? Why?



If you have time...

What do you think these people would have used before digital technologies?

- → a doctor
- → a teacher
- an office worker

Technology questions

You will learn:

how to ask good questions about the ways people use technology.

You can find out about how people use technology for their work by asking **questions**. You need to think of good questions to get useful answers.

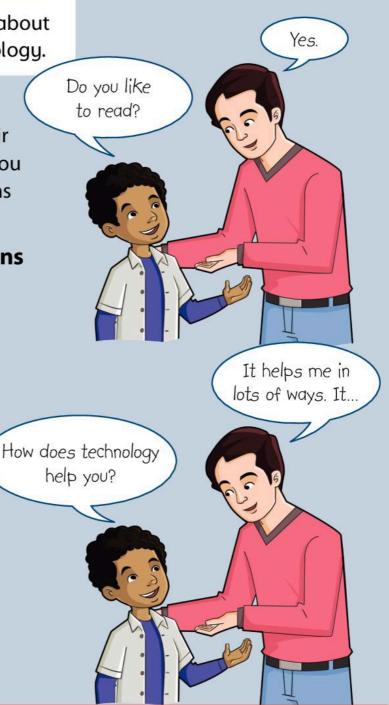
Different kinds of questions

Some questions have answers that are 'yes' or 'no'. These are called 'closed' questions.

Some questions have longer answers. These are called 'open' questions.

Open questions start with:

- Who
- What
- When
- Where
- → Why



How to write questions

Look at the worksheet your teacher will give you. Work out which are closed questions and which are open questions.

Talk about...

What questions might you ask someone about the technology they use?

Think about:

- → their day
- → when they might use technology
- → how they might use technology.

Activity Writing questions

Work in a small group.

Write five questions.

Think about who you will be speaking to.

What questions can you ask them about how they use technology?



If you have time...

Your teacher will show you a short news clip. What do you notice about:

- → the equipment that is being used
- → the way the people stand or sit
- → the kinds of questions being asked?

Practise asking and answering some questions with a partner. Do you feel comfortable being asked questions? What would make you feel more comfortable?

Doing the interview

You will learn:

- how to share technology
- how to ask questions politely.

During this lesson we are going to ask a visitor our questions. This is called an **interview**. You are the 'interviewers'. The visitor is the 'interviewee'. It is important to be polite to the interviewee.

Your group will be able to record your interview. You will use these **recordings** in your next lesson.



Talk about...

What recording devices could you use? Why is it important to share technology?







How to record your interview

- 1 Look at the questions you wrote last week.
- 2 Decide who is going to ask which question.
- **3** Write your name next to your question.
- **4** Agree who is going to work the recorder.
- Remember
- → to greet your visitor politely
- → to ask your visitor permission to record the interview
- > to thank them at the end.



Please may we record your interview? We will not share it with anyone. It will only be for us to use after this interview.



Thank you for your time.

Activity Interviewing

Carry out your interview.



If you have time...

Think about how you might show others what you have found out.



What did we find?

You will learn:

- about listening to recordings
- about how people use technology.

When people do a recording of an interview, they listen to it afterwards and take notes. You are going to do the same with the recording you made of a visitor telling you about how they use technology.



How to listen carefully

In pairs or groups listen to your recording and note down the most important things that were said in the interview. This is how you do it.

2 These students are listening to the recording and telling the technician when to stop and start.



1 This is the technician – they stop and start the recording.

3 The students take notes of anything interesting they hear.

Activity Listening to the recording

Listen and take notes of your recording.

Talk about...

What kinds of questions got the best answers?

What technology was used most often?

What technology was used least often?



If you have time...

Look at the magazine article your teacher has given you. Make a list of the important words in the article. Why are these words important?

Preparing to share

You will learn:

→ how to share your findings in a poster presentation.

You have interviewed a visitor about the ways they use technology.

You have listened to your interview and written down the important things your visitor said.

Now you are going to give a presentation to share with the rest of the class about what you found out.

Talk about...

Why is it important to share information?

How to give a presentation

Sales people give presentations to sell their products.

Teachers give presentations when they take a lesson.

They often use pictures and diagrams to make the presentation more interesting. Images also help to explain what you want to say.

For your presentation you could draw a poster with the information you found out about in your interview.





Activity Preparing your presentation

Plan your presentation. Decide who is going to talk and what they are going to say. Prepare a poster to go with your presentation.

Talk about...

People use technology in presentations. What technology is this person using?





If you have time...

Practise your presentation.

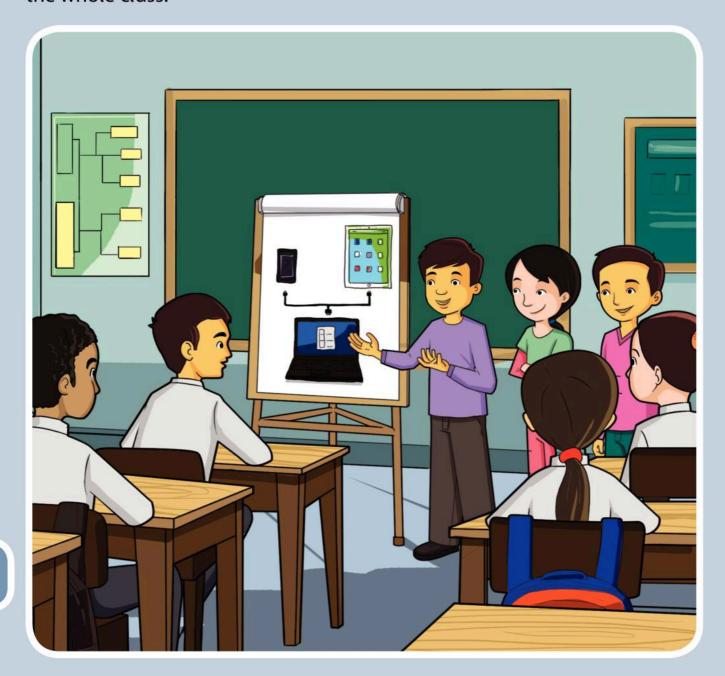
Sharing our findings

You will learn:

→ how to share information.

You have interviewed a visitor and found out what technologies they use to solve problems.

In this lesson you are going to share what you have found with the whole class.



3 Make eye contact. That means try to look at the people you are speaking to.

How to share what you have found out

When you give a presentation it is important that everyone can hear and see you.

Here are some tips to help you.

2 Speak slowly and clearly. Try to take good deep breaths in and out.



1 Stand up tall.
Pretend you have a piece of string coming out of the top of your head, pulling you up straight like a puppet.

Activity Sharing

Take turns to share what you found out about the technologies your visitor used. You could tell the whole class or a smaller group.

Activity Technology in the future

Complete the sentence on the worksheet your teacher gives you. What technology do you think you might be using in the future?

Talk about...

What did you find out about technology at work?

What problems did technology solve?

What made your presentation go well?

What could be done to make it even better?



If you have time...

Write a top tips list for giving a presentation.

What you have learned about computers in society

You have learned how people use technology; how to ask questions politely; how to share a piece of equipment and how to share information with others.

The activities on this page will let you see how much you have learned.

1 Write down five types of technology.

2 Look at these pictures.





- a Write down the names of these technologies.
- **b** What kinds of problems do each of these technologies solve?

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3	Why did you have to share recording equipment?
4	What was difficult about sharing equipment?
	o
5	What was fun about sharing equipment?
	3
	

Activity Interviewing about technologies

Ask another student questions about which technologies they like using and why.

6 Control the computer: The lively cat

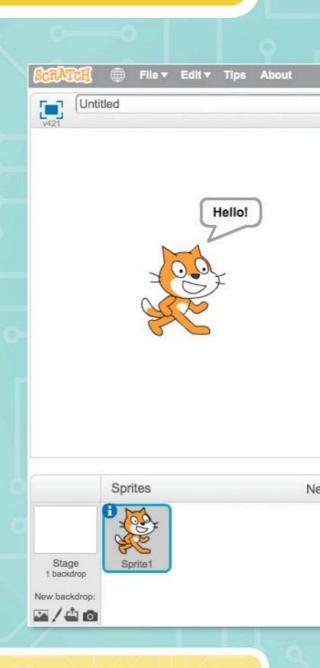
By the end of this unit you will:

- understand what computer programs are
- know how to open and run a computer program
- know how to make changes to a computer program.

In this unit you will control a cat that walks and talks on the computer screen.

A computer program

is a set of instructions.
The instructions control
what the computer does.
In this unit you will learn
how to make changes to
a computer program that
will change what the
computer does.

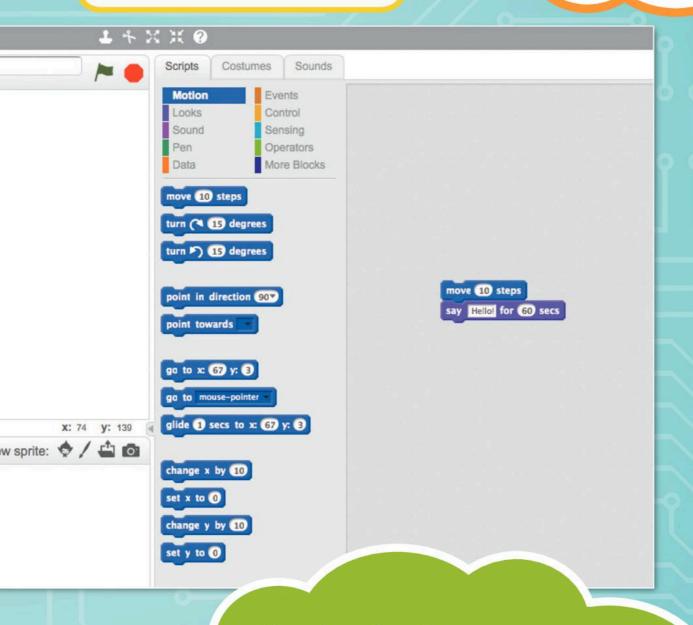


Talk about...

What computer games do you know? Which games are your favourites?

Activity Drawing an animal

Look at the picture. It shows the cat that walks and talks on the computer screen. Think of a different animal you would like to see. Draw the animal. programming language
stage
block script
computer program
backdrop



Fascinating fact

Scratch is used in schools all over the world. There are schools in more than 150 different countries that use *Scratch*.

What is Scratch?

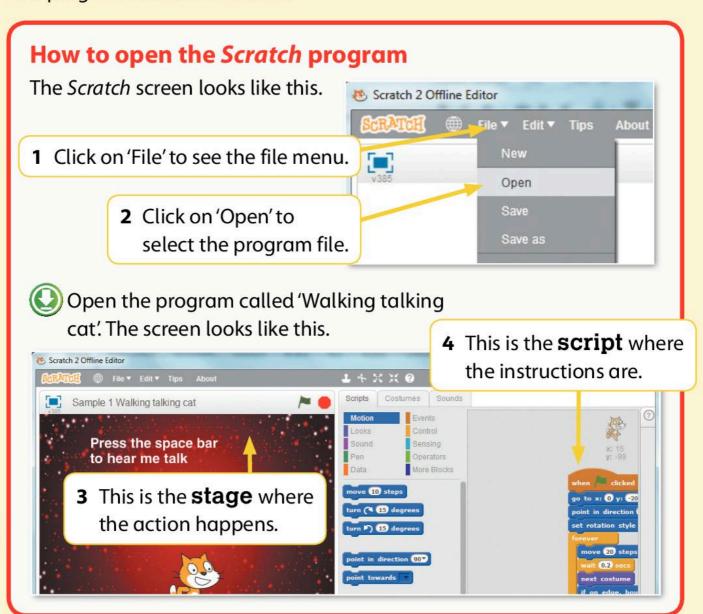
You will learn:

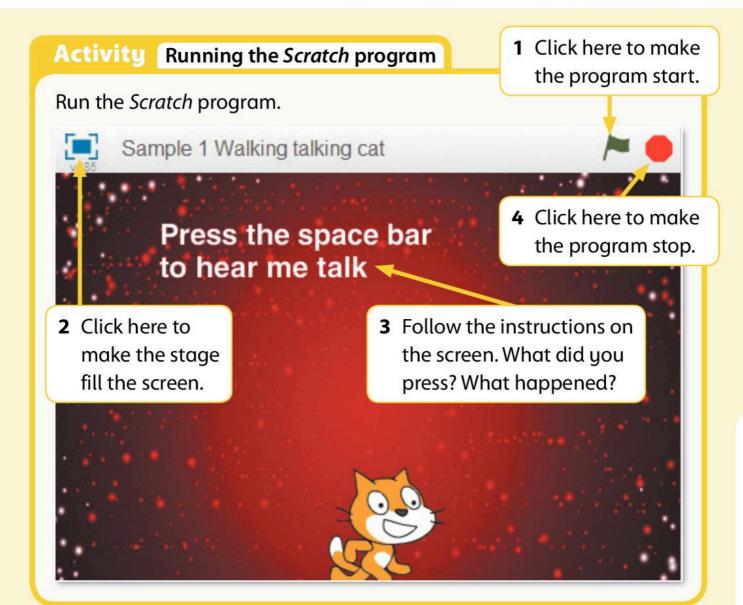
- what Scratch is
- how to run a Scratch program.

A computer program makes the computer carry out actions.

A programming language is used to write computer programs.

Scratch is a programming language. In this lesson you will look at a program written in *Scratch*.





Talk about...

What new words have you learned?



If you have time...

Click on the screen size icon. This will make the stage smaller. Look at the 'Script' side of the screen. Can you work out what these instructions do?

Choosing the backdrop

You will learn:

- what the backdrop is
- how to choose a backdrop for the Scratch program.

This screen has a bright red **backdrop**. The backdrop is the image that fills up the background. Now you will choose a new backdrop from the library. A library is a collection of resources.

1 Below the stage you can see the backdrop.

Sprites

Stage | Sprite |

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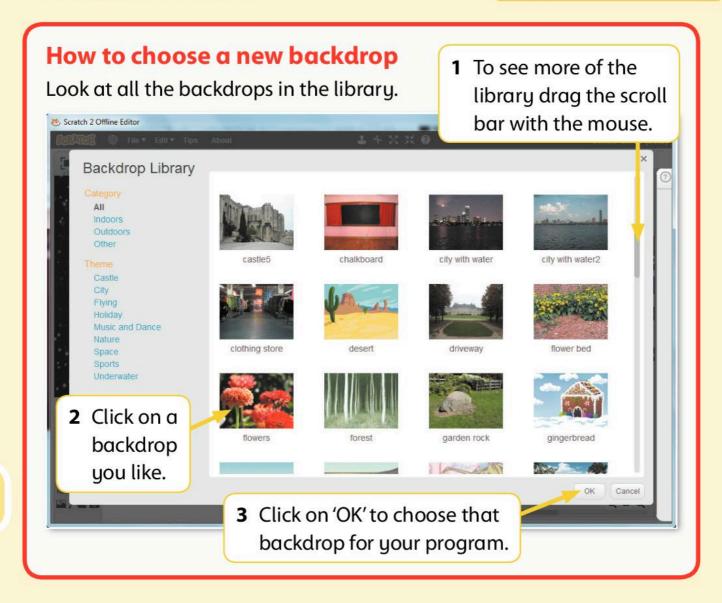
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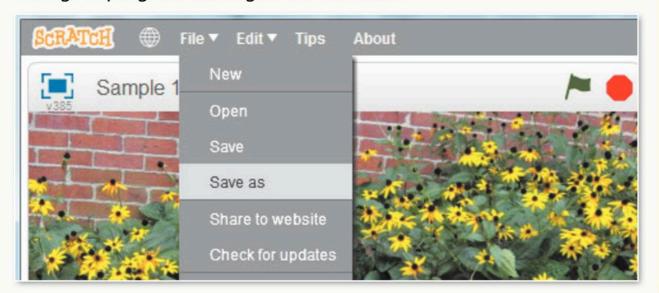
Spri



Activity Choosing a backdrop

Choose your backdrop for your program.

Save your program when you have finished.





If you have time...

You can use any image as a backdrop. You can use an image stored on your computer. You can use a photo on your camera. Don't forget to connect your camera to the computer to download your photo.

1 Click here to choose an image from the computer.



2 Click here to take an image from your camera.

Talk about...

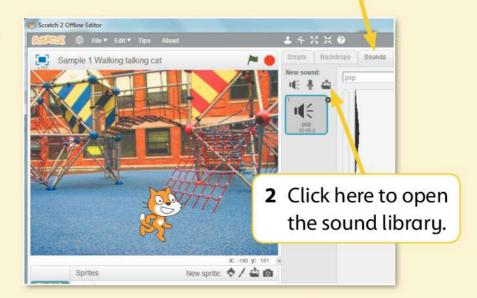
What background did you choose? Why did you pick that one? What did you like about it?

Choosing sounds

You will learn:

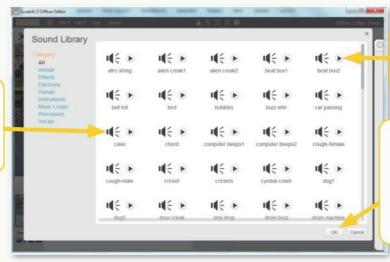
- how sounds are included in a Scratch program
- how to choose new sounds for a Scratch program.
- 1 Click here to work with sound.

Open your saved program. It might look like this. You chose a new background. Now you are going to choose new sounds. They are in a sound library.



How to choose sounds from the sound library

2 Click on any sound to select it.



- Click to listen to any sound.
- **3** Click on 'OK' to choose that sound for your program.

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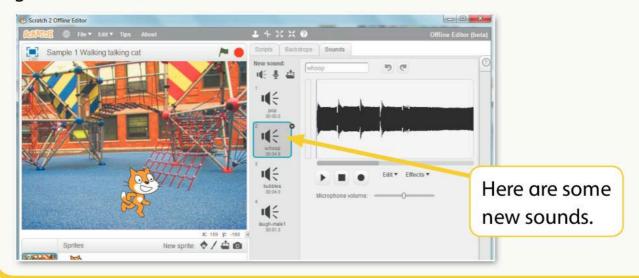
Talk about...

What might be the best sounds for a cat?

Activity Choosing sounds

Ochoose three or more sounds to add to the *Scratch* program. Save your work.

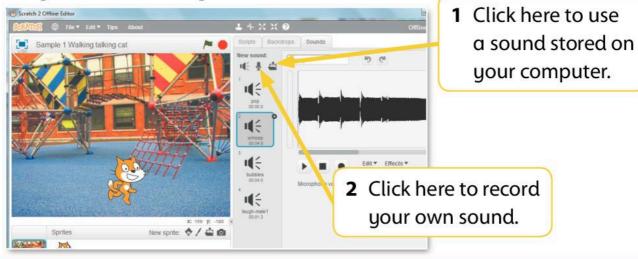
Next lesson you will learn how to make the cat say the new sounds you have added.





If you have time...

There are more ways to get sounds. Add new sounds to the program using one of these ways.



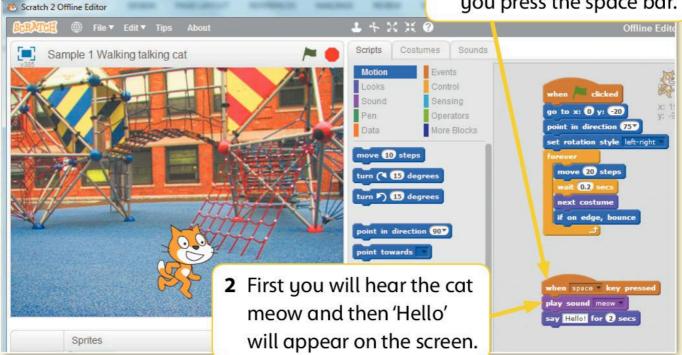
Using the new sounds

You will learn:

- → how to edit a Scratch program
- how to change the sounds used in a Scratch program.

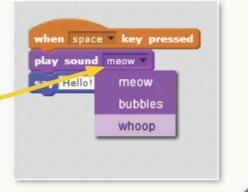
Open your saved program. Look at the script. The script tells the computer what to do. Now you will change the script.

- You will change the sound the cat makes.
- · You will change the words on the screen.
- 1 This script will run when you press the space bar.





Click here to choose a new sound from your list.



How to change the word

Type a new word. The cat will say that word.

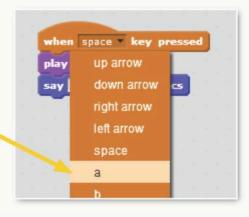
1 Type a new word here.

```
when space key pressed

play sound whoop say YOW!! for 2 secs
```

You can change the keyboard key that makes the cat speak.

2 Click on a key from this list.



Talk about...

What word might the cat say?

Activity Changing sounds

Change the cat's sound.
Change the word the cat says.

Run your script. Do you like the change you made?

Save your file.

2 Choose what key you press to run the new script.



If you have time...

You can make two scripts. Change the key press, the sound and the words for the new script.

> Click the right button on the mouse.
> Choose 'duplicate' to make a new script.



How the cat moves

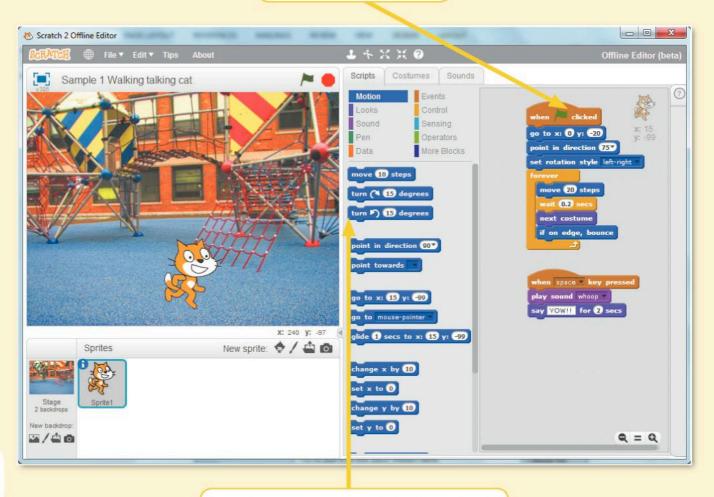
You will learn:

- how a Scratch script controls movement
- how to change the movement of a sprite.

The cat is a 'sprite'. A sprite is an object controlled by a computer program. Look on the right of the *Scratch* screen. You will see the script. In this lesson you will change the script.

The script is made up of **blocks**. You can add new blocks to the script.

1 This is the script.



2 These are spare blocks which you can add to the script.

How to make the cat move

You are going to make the cat turn.



2 Add the block to the script here.

```
when clicked
go to x: 0 y: -20
point in direction 75
set rotation style left-
forever
move 20 steps
turn (* 15 degrees
wait 0.2 cs
next costu
if on edge, bounce
```

- 1 Click and drag this block to the script.
- **3** You can type a different number.

Activity Turning

Add the 'turn' block to the script.

What happens when you run the script?

Save your work.

The number in the 'turn' block shows how much the cat will turn. The bigger the number, the more the cat will turn.

Talk about...

Turning is described in degrees. 360 degrees is one full circle. What is half a circle?



If you have time...

Change the number in the 'turn' block. What happens to the cat?

Try different numbers. See what happens.

'The drawing bug'

You will learn:

- how to make Scratch draw with a pen
- how to change the pen colour and size.
- Open the *Scratch* file called 'The drawing bug 1'. Find the stage and the script.

Start the program. The bug is ready to draw. Have a go. Draw a line.

Now you will make changes to the program.



when 🏴 clicked

to x: -148 y: 4

go to mouse-pointer

wait until key a pressed?

until key space pressed?

set pen color to 0

set pen size to 10

How to change the line that you draw

Every colour has a number – red is number 0, yellow is 30 and green is 60.

2 You can change the size of the pen here – 1 is a thin line, 30 is a fat line.

1 You can change the colour of the line by changing this number.

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Activity Changing the colour and size of the pen

Change the colour and size of the pen.

Run the program. Draw a line on the screen.

Save your work.

How to make the pen colour change

You can add a new block to the script. It will make the pen colour change while you are drawing.

- 1 Click here to see the blocks that change the pen.
- **2** Click and drag this block to the script.





If you have time...

Add the 'change pen colour' block to the script. Now you can draw a rainbow line.

Talk about...

Do you like to draw with one colour or with rainbow colours?

What you have learned about controlling the computer

You have learned about a computer program. You have edited a program to make it work in different ways. You have changed the images and sounds used by the program and made a sprite move.

The activities on this page will let you see how much you have learned.

1	What is a <i>Scratch</i> sprite?
2	What is a <i>Scratch</i> script?
3	What is the <i>Scratch</i> stage?
4	You have opened a <i>Scratch</i> program. What happens when you click on the green flag?
5	You are running a <i>Scratch</i> program. What happens when you click on the big red dot?
6	Describe two ways you can make changes to a <i>Scratch</i> program.

Activity Knowing about Scratch features

- **1** Which parts of this picture represent:
- → the stage
- → the script
- → the sprite?
- **2** What other features do you recognise on this screen?



Activity Changing the backdrop

Open 'The drawing bug 2' program file.

Change the backdrop to a picture of flowers.

Save your work.

Activity Changing the sound

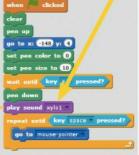
Load the sound called 'xylo 1' from the sound library.

1 Drag the 'play sound' block here.

Run the script. What happens?



2 Click on the 'play sound' block and change it to 'xylo 1'.



Glossary

backdrop the image in the background of the *Scratch* stage

backspace the key that makes the cursor move backwards, erasing the previous word

block the small sections of a *Scratch* program that fit to together to make the program code

bookmark a way of recording a website address

brochure a small booklet that has words and pictures to tell you about something



browser a program that helps you look at pages on websites

cell a square on the spreadsheet grid

cell reference the name of a cell in the spreadsheet grid, formed by combining the column letter and the row number

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Clip Art small pictures you can use in your work





computer program a set of stored instructions which control how the computer works

cursor a movable image, often an arrow or pointing hand, on a computer screen showing the point that will be affected by an action from the user

delete to remove something from your screen

document a piece of writing that can be printed on paper, or electronic

edit to add to, remove, correct or change something to make it better

effects changes you can make to your pictures to make them look nicer



favourite a way of recording a website address



formula instructions for the spreadsheet to calculate a value

internet a network of computers that goes across the whole world

Glossary

interview asking questions to find out answers

keyboard the part of the computer used to type letters



label text entered into a spreadsheet cell

library a collection of digital resources

line break to start a new line of writing

page elements the parts of a page layout, like words, pictures and titles

problem something that needs to be fixed

programming language a language used to write computer programs

question a sentence that needs an answer

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recording to copy sounds onto a machine so that they can be heard again

Scratch a programming language designed for use by young learners

screen the part of the computer where you see your work

script a program written in *Scratch*

```
when clicked

clear

pen up

go to x: -148 y: 4

set pen color to 0

set pen size to 10

wait until key a pressed?

pen down

repeat until key space pressed?

go to mouse-pointer
```

search engine a program that collects information about websites so that you can find them easily





stage an area of the screen where a *Scratch* script

tag a key word

technician a person who specialises in a type of technology (for example, audio technician, computer technician)

Glossary

technology any machine or device we can use to solve a problem

template an outline that helps you make up a page. It shows your where to put your words and pictures

URL the address of a website – URL stands for 'Uniform Resource Locator'

value a number in a spreadsheet; can be used in calculations

workbook a collection of spreadsheet grids in one file

worksheet a spreadsheet grid which can hold labels, values and formulas

Word Art A way of making your words look more colourful or shaped



Oxford International Primary Computing

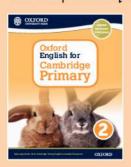


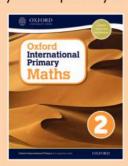
Oxford International Primary Computing is a complete six-year primary computing course that takes a real-life, project-based approach to teaching young learners the vital knowledge they need for the rapidly evolving digital world.

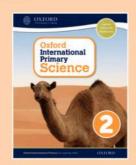
Within each stage, six key concepts give learners the skills they need to use technology effectively, safely and collaboratively:

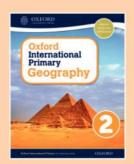
- Control the computer exploring the vital skills of logic and programming
- Working with text –from editing simple text to creating engaging outputs
- Handling Data turning numbers into useful and easy to understand data
- The Internet how can we use the internet safely, and how can we trust what we read?
- Multimedia harnessing technology creatively for graphics, animations, movies and more
- Computers in society asking big questions about real-life application of technology.

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