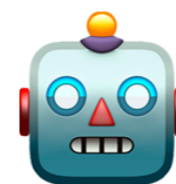


My Knowledge Organiser



Computer
Science



Information
Technology



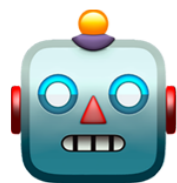
Digital
Literacy

Computing Knowledge Organiser for **Year 5**

Name:

Computing in **Year 5**

Computing is full of important skills and it helps us understand the digital world around us. Computing has three parts.



Computer Science

Computer Science teaches us about problem-solving, how computers work and coding languages.



Information Technology

Information Technology teaches us about how to use devices and apps to be creative and make digital content.



Digital Literacy

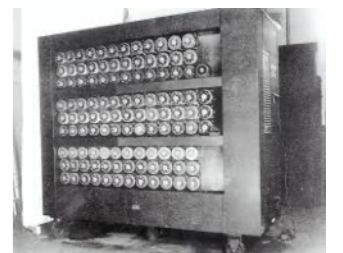
Digital Literacy teaches us about online life and how to stay safe and healthy when using technology.

Year 5's Important Person:

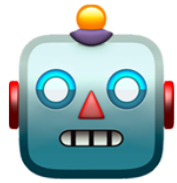
Alan Turing



- The British mathematician who made major contributions to the fields of maths, computer science and artificial intelligence.
- He worked for the British government in World War II to break the secret code that the German army used to communicate.
- Turing helped to develop the first input - output system for the first computer.



[Watch video.](#)



Computer Science

Pre Knowledge Quiz

My Learning Objectives:

I can decompose a problem, design an algorithm and use this to write a program.

I can design and write a program linked to physical systems and sensors.

I can use variables, conditional statements, procedures & repeat commands to improve programs.

I can use logical reasoning to detect & debug a program.

I can explore networks and internet traffic.

I can translate binary numbers to decimal.

Question 1:

Decomposition means to...

Remove unnecessary information from a problem.

Reuse sections of code to perform a task.

Write an algorithm to solve a problem.

Break a big problem into smaller bits.

Question 2:

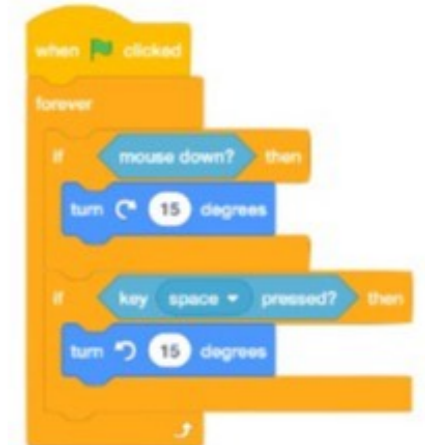
What will happen if the space bar is pressed on the keyboard, when this program is running?

The sprite will turn right 15 degrees.

The sprite will turn left 15 degrees.

The program will do nothing.

The sprites will move forward 10 steps.



Question 3:

British engineer Tim Berners-Lee invented the World Wide Web (WWW) in which year?

2000

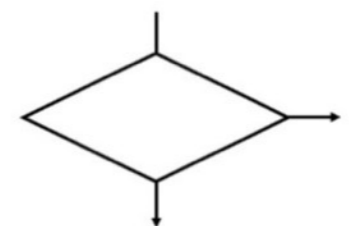
1994

1989

1965

Question 4:

Which command is represented using this flow diagram shape?



Decision

Process

Input/Output

Start/Stop



What Should I Already Know Checklist:

- Do you know how to design algorithms?
- Do you understand abstraction and decomposition?
- Do you understand the structure of programs?
- Do you know how to write a complex program?
- Do you understand how to debug a program?
- Do you know how to evaluate programs?
- Do you know the key services on the internet?
- Do you know the main components of a computer networks?
- Do you understand the algorithms that search engines use to sort websites?

We will learn:

- About problem solving and decomposition.
- About planning, writing and testing algorithms.
- About creating complex programs and debugging as needed.
- About controlling / simulating physical systems and using sensors with multiple outcomes.
- About creating a complex game.
- About logical reasoning and using the correct terminology.
- About software, hardware and types of connected computers.
- About how data travels via the internet including binary.
- About the different parts of the Internet and services.
- About how to create a basic web page using HTML.
- About key skills for using a search engine.

Have you heard of HTML?

Webpages are documents commonly written in HTML that are accessible through the internet or other networks using an internet browse.

Webpages are accessed by entering a URL address and may contain text, graphic and hyperlinks to other webpages and files.

URL— Uniform Resource Locator, termed a web address, refers to a web source that specifies its location on a computer network.

```

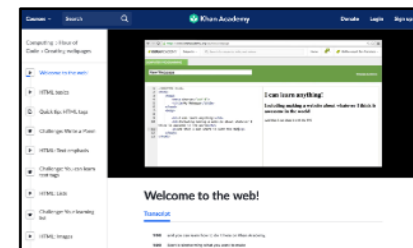
<html>

  <head>
    <title>My first page</title>
  </head>
  <body>
    <p>This is my first line.</p>
  </body>
</html>

```

This is what a very simple HTML website looks like. The HTML tags in blue are what a computer reads to know to format a web page correctly. Put simply where things should be on the page and how they should look.

Want to become a master in HTML and create your own websites? Try this [course on Khan Academy](#). It has video lessons and simple activities to complete.



What do you think?

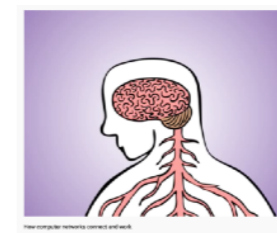
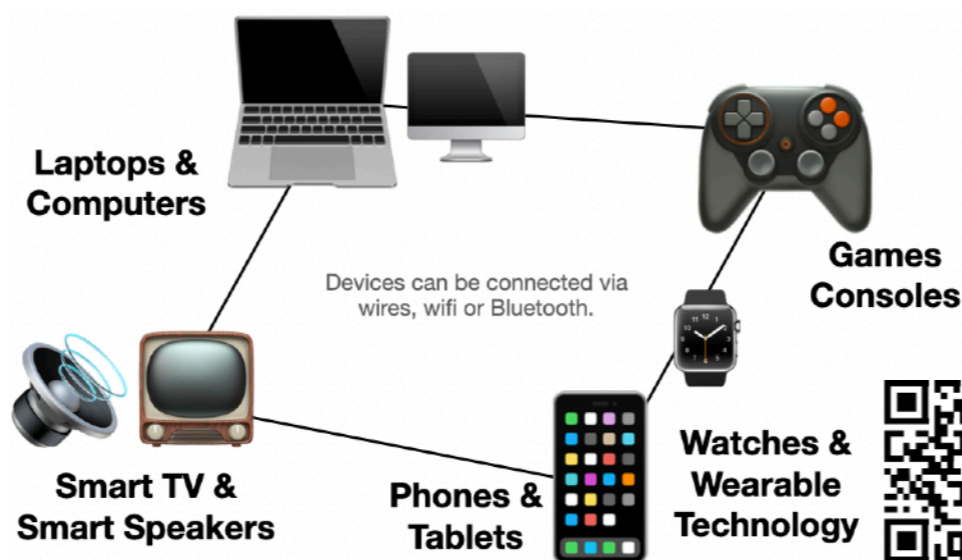


Have you heard of encryption? Why is it so important? Encryption allows information to be hidden so that it cannot be read without special knowledge (such as a password). This is done with a secret code or cypher. The hidden information is said to be encrypted. Decryption is a way to change encrypted information back into plain text.

Cryptography is derived from the Greek word 'kryptos' which means hidden or secret. Cryptography is the art of protecting information by transforming it (encrypting it) into an unreadable format, called cipher text.



Find out more about [Codebreaking during World War Two](#), spies, secret messages and [Cryptography](#). [Click to watch.](#)



Watch these videos on how computers connect on a network.



What is a computer network?

What is a computer network? Well it's simply a number of computers (or computer like devices) connected together in some way. The point of a network is so devices can talk to each other, this means that they can send and receive information.



Important Words:

- Abstraction:** Taking the detail out of a 'problem' to make it easier to solve.
- Algorithm:** Steps or instructions to follow to achieve a task.
- Application (App):** A program such as a game or drawing app that performs a task on a computer.
- Bugs:** Mistakes or errors in code.
- Code/Coding:** Lines or blocks of instructions (see program).
- Computer networks:** Connected devices that make it possible to transfer data using an agreed method ('protocol').
- Command:** A step or line of programming (instruction for younger children).
- Conditional:** Something that is either true or false
- Data:** Numbers and information that can be represented by images, video, text and sound.
- Debug:** Finding and correcting errors (bugs).
- Decomposition:** Splitting things into smaller parts.
- Event:** Code that runs when something happens, such as a button being clicked.
- Execute:** Play or run code in a program.
- Input:** A method of computers receiving data (Eg. keyboard, mouse, touch, sensors etc).
- Logical Reasoning:** A systematic approach to solving problems.
- Object:** An item on screen, such as an image, a button or some text.
- Output:** The information produced by a computer system for its user, typically on a screen, through speakers or on a printer, but possibly though the control of motors in physical systems.
- Prediction:** Make a guess about what happen in a program or how a problem might be solved. Also know as logical reasoning.
- Program:** A series of instructions written in a computer language (Code).
- Repeat (Loop):** Instructions that can be repeated.
- Selection:** A way in computer programs to make choices (e.g. IF..THEN)
- Sequence:** A set of instructions that are followed in order.
- Sprite:** (in Scratch) an object that can be controlled by programming.
- Testing:** Checking if a program works how it should.

Videos to watch:



Find out more about the genius of Alan Turing. [Watch video.](#)



Cryptography: The Science of Making and Breaking Codes. [Watch video.](#)



How Does Morse Code Work? [Watch video.](#)



This video will help explain the power of the computer in the modern age. [Watch video.](#)



Find out how the Internet works! This playlist of videos will explain the internet. [Watch video.](#)

What is binary?

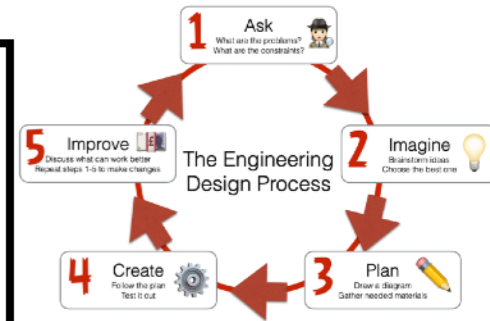
This is what binary code looks like. What do you notice?



Binary is extremely important to the computer world. We use the alphabet to write letters or words to communicate.

Computers use binary code. Computers today use digits to represent information - that's why they're called digital systems. The simplest and most common way to represent digits is the binary number system, with just two digits (usually written as 0 and 1). A binary digit, or bit, is the smallest unit of data in computing. It is called binary because there are only two different digits used, or two states. The majority of computers today store all sorts of information in binary form. Here is a short [video](#) to explain how binary works.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



The Stages of a Project:

This explains how a computing project is developed in stages to meet specific needs or expectations.

Ask - Who will it be for? What has to be done? What are the problems?

Imagine - Brainstorm ideas and choose the best one.

Plan - Draw a diagram, gather resources. How should it be done? What could it look like?

Create - Follow the plan. Create the project as efficiently as possible.

Improve - What could work better? Does it do what it should? Does it need modifying?

Repeat these steps 1-5 times. Review the project's success. How could it be improved further?



Where can you find Google's advance search tools?

Advanced search is a built-in feature of Google which allows a user to specify additional requirements for a search.

When used for searching the Web, an advanced search gives additional information to Google, which helps re- fine the search.

Then narrow your results by...

language: any language

region: any region

last update: anytime

site or domain:

terms appearing: anywhere in the page

SafeSearch: Filter explicit results

reading level: no reading level displayed

file type: any format

usage rights: not filtered by license

Advanced Search

When was it last updated?

Search reliable domains like .gov or .edu

Search for files like PowerPoint or PDF.

Usage rights indicate if you can legally share content.

What about the future of technology?

Technology is constantly changing the way we live our lives. Just think about our homes. Homes are becoming smarter with appliances running automatically and able to be controlled from apps over wifi.

What makes something a smart home device? Generally, it's defined by its ability to connect to a Wi-Fi network, allowing you to remotely interact with it using a smartphone app, or through voice commands towards your preferred virtual assistant like Alexa or Siri. You may already have smart devices at home, speakers, TVs, vacuum cleaners, light bulbs, door bell or heating system.

You may of heard people talking about the '**digital divide**'. The digital divide is when some people can't benefit from using technology because they:

- can't afford a device such as a computer or smart phone.
- live in an area with a slow internet connection.
- live in a country where some websites are blocked.

What is coding language?

A coding or programming language is a computer language programmers use to develop software programs, scripts or other sets of instructions for computers to follow.

There are lots of different coding languages to choose from but some popular choices for children are:

Scratch



With Scratch, you can program your own interactive stories, games and animations. Aged 6-15. You can look at projects others have made and if you are stuck you can look at the games scripts.

Python



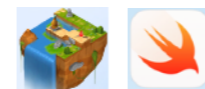
Python is surprisingly easy to learn, so it's a good choice to learn for your first text based programming language. Code Monkey is a good place to start learning some basic python.

JavaScript



JavaScript is the programming language of the Internet, it helps make the Web awesome, it can be used to create animations and games. Try this simple introduction to JavaScript. You could also try Blockly, this is Google's visual programming language based on JavaScript.

Swift



Swift Playgrounds is an educational tool and development environment for the Swift programming language. This is the language for creating iPhone and iPad apps.

Computing Pioneers. People you should know about!



Over the course of the last few centuries there have many individuals who have contributed significantly to areas that relate to computers. This is a list of the 10 most famous of the computing pioneers. You could also visit this website with a timeline of important computing breakthroughs.

Top 10 computer pioneers:

Tim Berners-Lee

Invented the WWW (World Wide Web)

Leonard Kleinrock

Created the initial idea of the ARPANET, the precursor to the Internet.

Charles Babbage

Designed the first mechanical computer.

Konrad Zuse

Developed the first programmable (modern) computer.

Steve Wozniak

Created the Apple I in 1976, which was the first Apple computer.

Steve Jobs

Co-Founder and former CEO of the Apple company.

Ada Lovelace

She is credited as being the worlds first computer programmer.

John Atanasoff

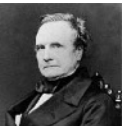
Inventor of the first digital computer, the ABC.

Alan Turing

English mathematician, logician, cryptanalyst and computer scientist who is considered to be the father of computer science.

Bill Gates

Co-Founder and early CEO of the Microsoft company.





Show you know!



Scratch Blocks Guide

This guide is a reference tool to help Scratch experts improve their block programming skills.

Features	Blocks
Move sprites using arrow keys.	
Have a sprite follow the mouse around the screen. Change the number in the move block to make the character move faster or slower!	
Have your sprite draw a square.	

Can you Make Predictions About Programs in Scratch?

```

when green flag clicked
  set rotation style to left-right
  point in direction -90
  
```

1

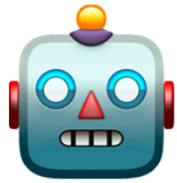
Easy!

```

when green flag clicked
  point in direction 90
  repeat 10 times
    next costume
    move 10 steps
    wait 1 seconds
  
```

2

Hard!



Computer Science

Post Knowledge Quiz

My Learning Objectives:

I can decompose a problem, design an algorithm and use this to write a program.

I can design and write a program linked to physical systems and sensors.

I can use variables, conditional statements, procedures & repeat commands to improve programs.

I can use logical reasoning to detect & debug a program.

I can explore networks and internet traffic.

I can translate binary numbers to decimal.

Question 1:

Decomposition means to...

Remove unnecessary information from a problem.

Reuse sections of code to perform a task.

Write an algorithm to solve a problem.

Break a big problem into smaller bits.

Question 2:

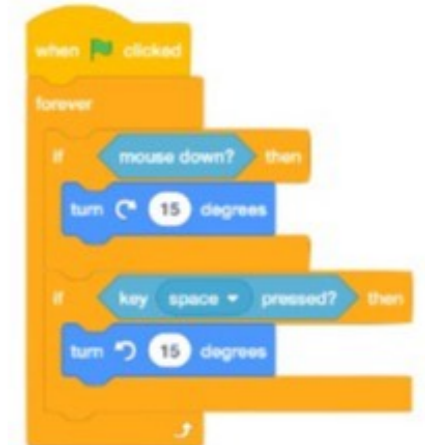
What will happen if the space bar is pressed on the keyboard, when this program is running?

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Question 3:

British engineer Tim Berners-Lee invented the World Wide Web (WWW) in which year?

2000

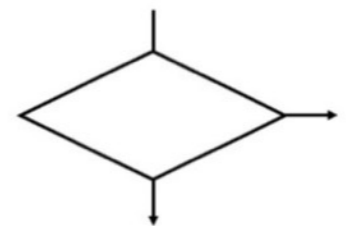
1994

1989

1965

Question 4:

Which command is represented using this flow diagram shape?



Decision

Process

Input/Output

Start/Stop



Information
Technology

Pre Knowledge Quiz

My Learning Objectives:

I can record and produce a podcast / audio clips.

I can use unfamiliar technology to create content.

I can improve the quality and presentation of my work.

I can use a spreadsheet to collect and record data.

I can use a search engine and I am aware that not everything I read online is correct.

I can make a QR codes that links to my own work.

I can film and produce a short video.

Question 1:

What is a podcast?

A television programme which you can watch after it has been broadcast.

A live music programme broadcast on digital radio.

A digital audio file which can be downloaded/ streamed from the internet.

A short clip of music.

Question 2:

What is the term that means: take data out of one piece of software for use in another?

Export.

Import.

Open.

Save.

Question 3:

If you wanted to create a comic book. Which type of app would you ideally use?

Word Processing.

Desktop Publishing.

Spreadsheet.

Presentation.

Question 4:

Which of the following is NOT a feature of video editing software?

Add titles and special effects.

Add items to a timeline.

Track the number of internet views for the video.

Add or remove a music soundtrack.

What Should I Already Know Checklist:

- Can you produce documents and media content using advanced features?
- Can you use advanced keyboard features and spellchecking?
- Can you present data and information?
- Do you know about new forms of technology e.g. AR, Virtual Reality, Wearable Technology etc?
- Can you search for and use information from a range of sources?
- Do you know that not all sources of information including websites are accurate and can check information using a different sites?

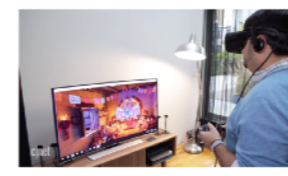
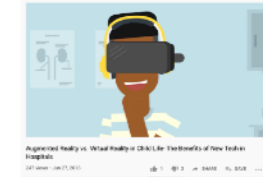
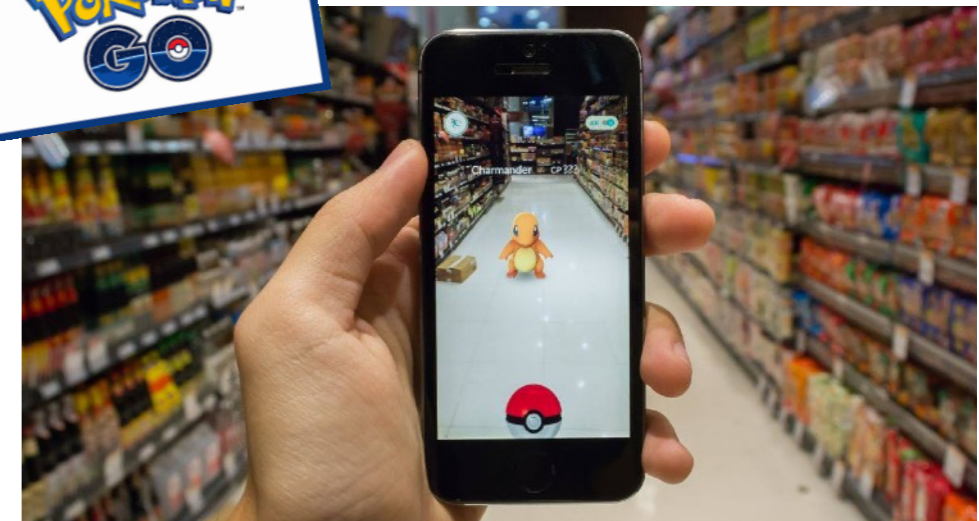
We will learn:

- About producing digital content in a given format e.g. podcasts, videos, AR, virtual reality, 3D, digital music or illustrations.
- About planning projects.
- About building on the skills they have already developed to create content using unfamiliar technology.
- About using a spreadsheet / database to collect, record data and to use simple formulae.
- About using complex searches and advanced tools to find, select and use information.
- About checking the reliability of information on the internet.

Did you know?

As of 2020, there are 166 million Pokémon Go users. Pokémon Go is one of the first major AR break through apps. But what is AR? AR stands for **augmented reality** and it is when the real world as seen through the lens of a mobile device is enhanced or changed through the use of virtual elements such as objects, text, video or audio. Quite simply AR overlays (puts) digital content on top of the real world as seen through a camera lens.

Here are some videos to watch that will show you the power and potential of AR.



What do you think?



Have you heard of SmartGlasses? When we talk about AR or augmented reality **smartglasses**, we are focusing on eyewear that has the technology on board to merge what you see in the real world with virtual information, usually overlaid on one of the glasses lenses.

Big companies like Facebook, Amazon (Alexa), Google, Snap, Lenovo, Epson, Microsoft, are all developing smartglasses. Do you think they could be the next big thing?



Keyboard Skills:



One of the most important skills to learn on a computer is how to type. Typing is very important because it's how you enter things into the computer. If you are searching online for information, you will need to be able to type in what you are looking for, and as you get older, you'll need to type up essays for school. Being able to type well will help you get things done on a computer more quickly. Try these websites and games to improve your skills.

- Text Type 2: Learning to type can be tricky, but this tutor shows kids the way.
- Dance Mat Typing: Learn typing skills with this computer game. As you improve, you can work your way through new levels.
- Keyboarding Zoo: As you work through this game correctly typing each letter, you are rewarded with an animal whose name begins with the same letter.
- KeyboardBuilder: Play this building-themed game to improve your typing ability!



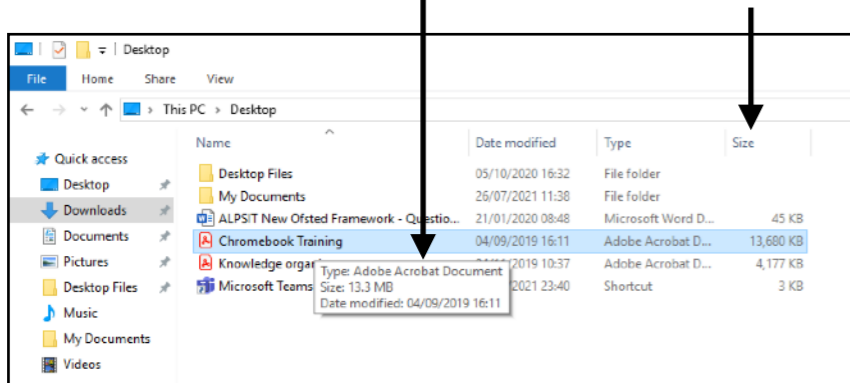
What type of COMPUTER are you using?



Basic Windows & PC Skills

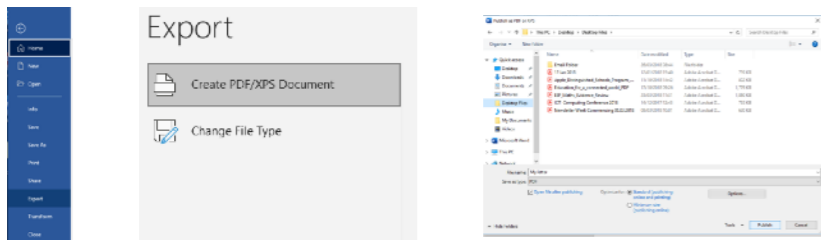
How do you find the size of a file or folder on your computer? To find the size of a computer file or folder is very easy. Open File Explorer (aka Windows Explorer).

Hover the mouse cursor over the file or look at the column marked size.



Knowing the size of a file is very important, particularly if you plan on sharing the file with other people. If you plan to email the file, email apps will only allow files that are approximately 10mb maximum.

How do you export a document in a different file format? There are lots of reasons you might need to export the document you are working on into other file formats. If you want to send someone a letter you have written in Word, it's always a good idea to convert it in to a PDF first. This is because word documents can be altered whereas PDF ones can't.



In Word press Home > Export PDF > Then choose where to save it.

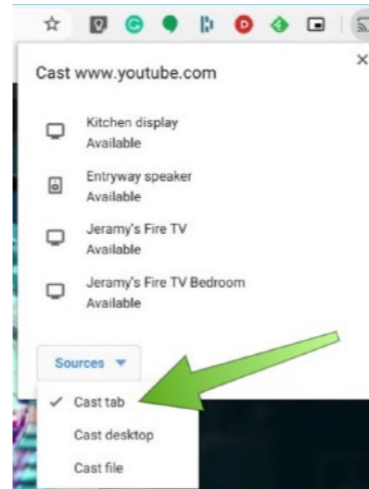


Basic Chromebook Skills

How do you connect our Chromebook to a display? The easiest way is to cast. Cast simply means to mirror your Chromebook's screen with another screen.

To cast from your Chromebook:

1. Open Chrome.
2. At the top right, select More.
3. Select Cast to.
4. Choose whether you'd like to share your current tab in Chrome (Cast tab) or your whole screen (Cast desktop).
5. Select your Chromecast.



How do you share a file for collaboration?

The ability to share documents and work collaboratively is one of the most useful things about Google Drive! This is how you can share a file with your teacher or classmate:

1. Open a file in Google Docs, Sheets, or Slides.
2. In the top right corner, click Share.
3. Under "People" in the box, type the email address of the person you want to share with.
4. Click Done. The people you shared with will get an email letting them know you've shared a file.

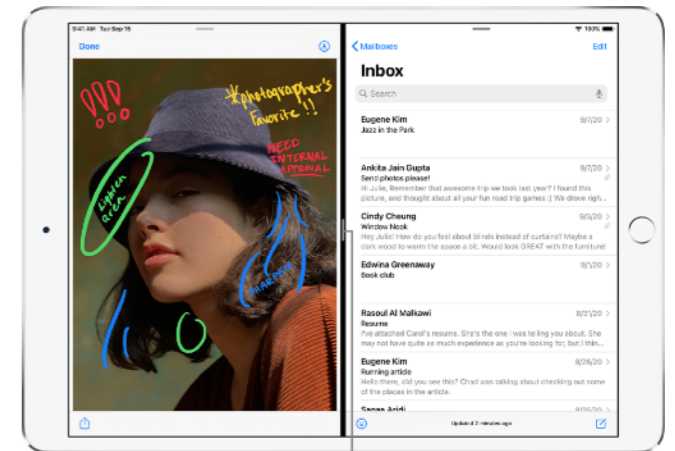


Basic iPad Skills

How do you use split screen with two apps?

1. Open an app.
2. Swipe up from the bottom of the screen to open the Dock.
3. On the Dock, touch and hold the second app you want to open, then drag it off the dock to the left- or right-hand edge of the screen.

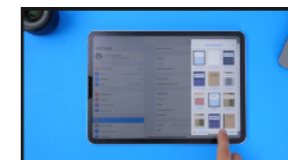
A great use of split screen is using Safari & the Notes app for research.



Drag to resize the split.

Can you use iPad advanced user gestures?

iPad gestures will really improve the speed at which you can do things on your iPad. Watch this video and try some gestures.



Important Words:

- Application/App:** An application, also referred to as a mobile app or simply an app, is a computer program.
- Attachment:** An email attachment is a computer file sent along with an email message.
- Audio:** Music or sound recording or file.
- Blog/Blogging:** A blog (a shortened version of “weblog”) is an online journal or informational website.
- Data:** Numbers that represent images, video, text and sound.
- Digital Content:** Any content that exists in the form of digital data. Also known as digital media.
- eBook:** A digital book that can be read on a computer.
- Emoji:** Images that show a mood, feeling or actions.
- Font:** A font is the specific style of text that's printed on a page or displayed on a computer screen.
- Format:** Changing or editing the look of your digital work.
- Frame:** Single image in a film or animation.
- GigaByte:** A unit of computer information consisting of 1,000,000,000 bytes.
- Hyperlink:** A way of connecting different Web pages together on the Internet. A hyperlink is a word or graphic display on one Web page.
- Icon:** Small image that can be used instead of words.
- Illustration:** Drawings showing ideas or characters.
- Illustrator:** A person who draws or creates pictures for magazines, books, advertising, etc.
- Information:** Data such as numbers, text, images presented in a meaningful way.
- MegaByte:** A unit of computer information consisting of 1,000,000 bytes.
- Menu:** A set of options when using a computer or app to help find information or do a task.
- Multimedia:** Different types of media. For example images, text, video and sound.
- Palette:** The range of colours available to the user of a computer.
- Save:** Keep and store your work on a computer.
- Screenshot:** An image of what is shown on a computer screen
- Screencast:** To broadcast a device's screen on another device e.g. TV.
- Shortcut:** A combination of keys that is a quicker way of doing something in order to save time or effort.
- Soundtrack:** the sounds, especially the music, of a film/movie, or a separate recording of this.
- Storyboard:** a series of drawings or images showing the planned order of images.
- Tool:** An item in an app that helps you do something on a computer. For example the pen tool can be used to draw.
- Word Processor:** An application for writing text on a computer.

Creating Presentations:

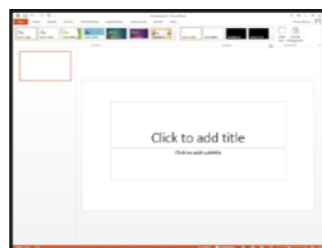
A presentation is made up of several slides about a topic, usually played in a linear order on a screen (one after another). Here are some things to think about when creating a presentation:

- Colour scheme, does it match the topic?
- A consistent design used across all the slides, same font and size etc.
- Transitions added between the slides.
- Objects are animated in and out for effect.
- Bullet points are used to summarise key facts.
- Always think - who is your audience? Make it appropriate!

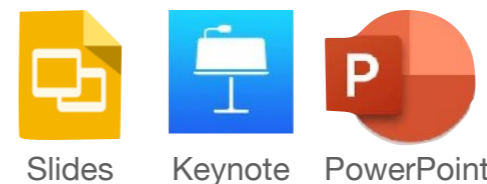
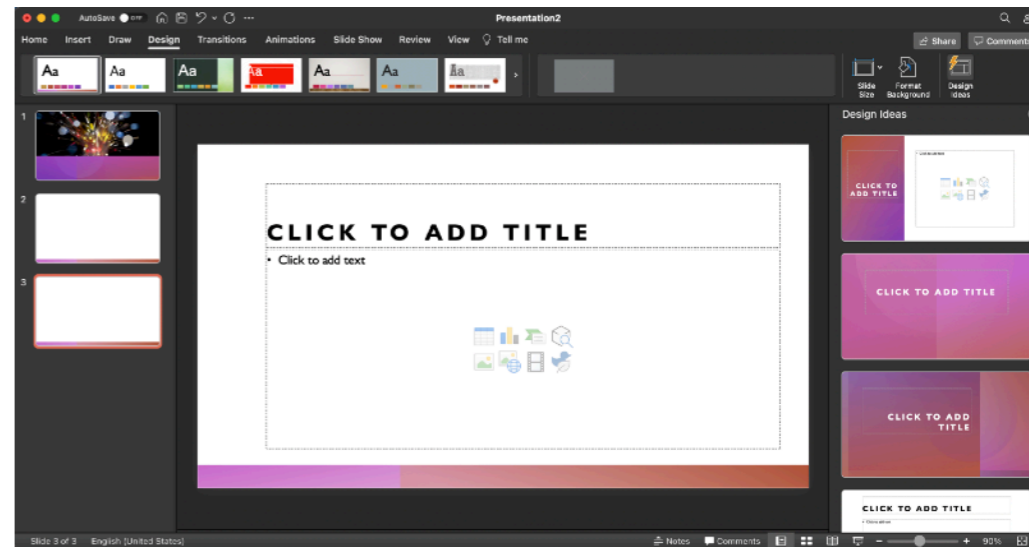
What is a non-linear presentation?

Non-linear presentations allow you to navigate through slides without having to follow a strict order. They give the presenter the ability to jump over slides, depending on what information is most relevant. They are a bit like a website, in that one slide can easily lead to another.

There will be some navigation method built into the presentation such as 'Go To', Previous, Next buttons and perhaps hyperlinks are included that jump to other parts of the presentation.



Watch video on Creating an Interactive Digital Story using PowerPoint.

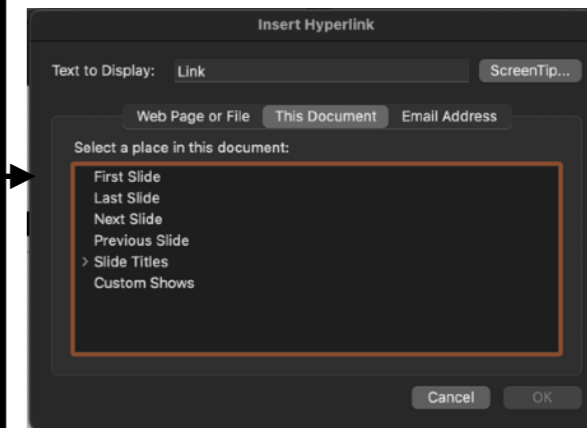
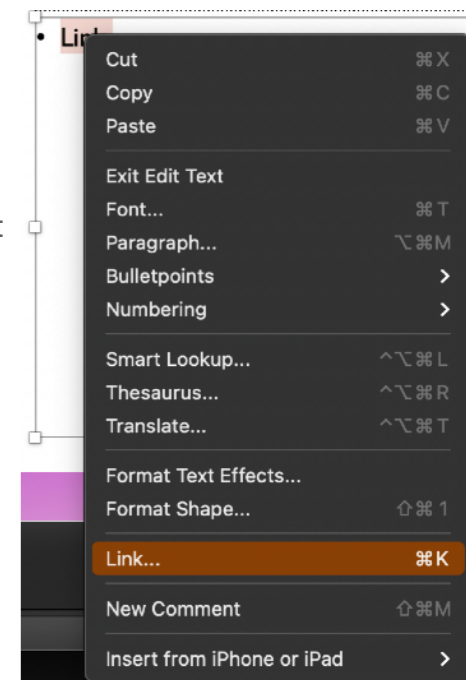


How to create non-linear presentations:

In PowerPoint, Keynote or Google slides you can link slides to one another by creating a hyperlink.

You can also return to your main table of contents by using action buttons with links.

For example if you wanted to return 'home' you can insert a shape, and create a hyperlink to the specific slide you desire.



What is a Podcast?

A podcast is downloadable broadcast or audio show, which can include video, music or speech. It's basically a short audio recording, a bit like a radio show. However, instead of being broadcast live, a podcast is recorded and shared over the Internet, so that you can listen to it whenever you please, thus giving them a much wider audience reach. Podcasts are often published as part of a series of similar episodes often at regular intervals. There are thousands of podcasts available, ranging from general interest entertainment shows to those which focus on specific topics (e.g. computers / music / education).

How do you create a Podcast?

You will need some basic equipment:

- A computer with an internal or external microphone or an iPad.
- The [Anchor website](#) or app to record your podcast.

What makes a good podcast? Here are some tips:

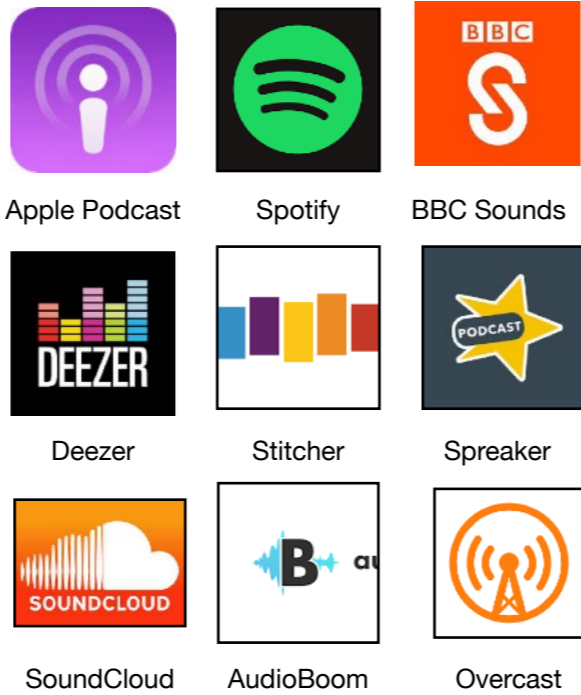
- Keep it short, if it is too long it may lose listeners' attention.
- Make it interesting. Choose your topic carefully.
- Always speak clearly and confidently.
- Include an appropriate introduction.
- Vary your tone of voice as this will create a better listening experience.

What can I put in a podcast?

- School news or national news for kids
- Interviews - with members of staff
- Our own stories
- Film or game reviews and whatever else you feel may be appropriate!

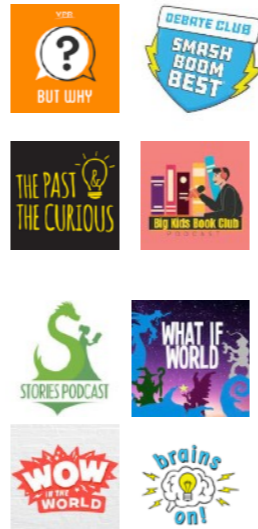
Where can you get podcasts?

You can also "subscribe" to podcasts using software like Apple's Podcast, BBC Sounds, Overcast and Stitcher apps. These apps will automatically download the latest shows, and you can then listen to them on your computer, phone, tablet and / or mp3 player.



Popular podcasts for children:

- But Why: A podcast for curious children
- Smash, Boom, Best
- The Past and the Curious
- Book Club for Kids
- Stories Podcast
- What If World
- Wow in the World
- Brains On
- Tumble

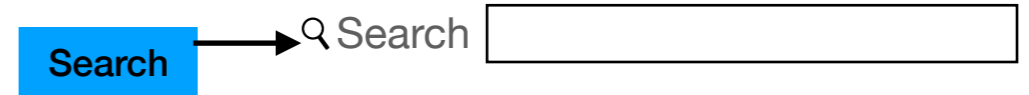


What is a database?

A database is simply a system that makes it easy to search, select and store information on computers. Databases are used in many different places to store information. Your school might use a database to store information about attendance or to store pupil's and teachers' contact information. Your local library might also use a database to keep track of which books are available and which are on loan.

A hospital might use a database to keep records of its patients. A patient's record may contain the following fields:

Titles	Record	Field	
Hospital Database			
First Name:	Last Name:	Injury:	Release Date:
John	Smith	Broken leg	26/04/22
Paul	Jones	Cut on arm	05/05/22
Janet	Melia	Bad back	30/06/22
Ava	Ellis	Lump on head	10/07/22



- **Fields** are the individual bits of information in your database. For example this field is storing the colour of one of the toys.
- Each row in your database is a **record**. This record is for a monster toy called Tom. Tom is currently on the toy shelf and is green.
- Each column in your database will have a **title**. All of the fields underneath this title are storing information about location.
- You can **search** your database for keywords. If you search for 'toy shelf' all of the records which have a field containing the phrase 'toy shelf' will be shown. This set of results is called a record set.



Post Knowledge Quiz

My Learning Objectives:

I can record and produce a podcast / audio clips.

I can use unfamiliar technology to create content.

I can improve the quality and presentation of my work.

I can use a spreadsheet to collect and record data.

I can use a search engine and I am aware that not everything I read online is correct.

I can make a QR codes that links to my own work.

I can film and produce a short video.

Question 1:

What is a podcast?

A television programme which you can watch after it has been broadcast.

A live music programme broadcast on digital radio.

A digital audio file which can be downloaded/ streamed from the internet.

A short clip of music.

Question 2:

What is the term that means: take data out of one piece of software for use in another?

Export.

Import.

Open.

Save.

Question 3:

If you wanted to create a comic book. Which type of app would you ideally use?

Word Processing.

Desktop Publishing.

Spreadsheet.

Presentation.

Question 4:

Which of the following is NOT a feature of video editing software?

Add titles and special effects.

Add items to a timeline.

Track the number of internet views for the video.

Add or remove a music soundtrack.



Digital Literacy

Pre Knowledge Quiz

My Learning Objectives:

I can access school email and can send emails to classmates and teacher.

I can create a subject specific vlog and understand the potential risks of sharing content online.

I can collaborate to develop & improve work.

I can search for someone online and create a summary report about that person.

I understand the need for copyright and the consequences of ignoring it.

I am aware that there are people online who may try to upset me and my group of friends. I make a positive contribution to my online community.

I understand the impact online bullying can have and I know what to do if I am the victim or I witness online bullying.

I understand the impact technology can have on my health, well being and lifestyle.

I can create a strong password and understand the real cost of some apps.

I am aware that my identity can be copied by other users and take appropriate measure to minimise the risk of this happening.

Question 1:

Which of these is NOT an app you could use to share a digital photo with someone?



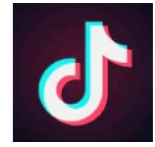
Facetime



Instagram



eMail



TikTok

Question 2:

You need to create a password for a website. What should you use?

Your full name (e.g. alan-ellis)

Part of your name and a number (e.g. alan123)

A random word, number and punctuation combination (e.g. 1cecr3am!)

A nickname that your friends call you (e.g. jumpingjacks)

Question 3:

Peter has been speaking to other players in an online game. Somebody Peter does NOT know offers to buy him some game add-ons. What should he do?

Decline the offer, tell his parents and make sure his online information is private.

Accept the offer, tell his friends and make sure his online information is private.

Accept the offer and provide his information to get the add-ons added to his account.

Decline the offer and never play the game again.

Question 4:

One of your friends has posted a video of you on the internet and you don't like it. You've asked them to take it down but they've said no because it's funny. What should you do?

Keep asking your friend until they take it down.

Speak to an adult and say why you don't like it.

Leave it – you can't do anything else about it.

Post a video of them to get them back.



What Should I Already Know Checklist:



- Can you identify apps that use the Internet?
- Can you communicate and collaborate online?
- Do you know about methods of collaboration over the internet?
- Can you identify Fake News?
- Do you understand potential online risks?
- Can you identify the safety features of websites and apps?
- Can you report concerns to a trusted adult?
- Do you understand what online privacy is?
- Do you understand the term 'digital footprint'?
- Can you act appropriately & respectfully online?
- Do you understand how to deal with online bullying?
- Do you understand how photos can be altered digitally?
- Do you understand copyright laws and plagiarism?
- Do you understand the positive and negative effects technology may have on health?
- Do you understand about viruses and malware?
- Do you understand what makes a secure password?
- Do you understand how to use an avatar?

We will learn:



- About using school email and sending emails.
- About creating a vlog and the potential risks of sharing content online.
- About digitally collaborating with others.
- About searching for individuals online and digital footprints.
- About the need for copyright and the consequences of ignoring it.
- About different types of online bullying and harassment.
- About making a positive contribution to an online community.
- About understanding the impact of online bullying.
- About the impact technology can have on my health, well being and lifestyle.
- About creating strong passwords and understanding online scams.
- About protecting my online identity and personal information.

Did you know?

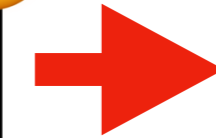


Bullying can happen to anyone in the gaming community, regardless of age. Have you experienced bullying whilst playing online games?

What form can bullying take in online games?

Victims of in-game bullying have reported verbal harassment, swearing and name calling during game play and within in-game chats.

Griefing is the term given to any act in which a player sabotages or interferes with another player's gameplay, steals their virtual belongings (aka greed play), deliberately irritates other players or verbally harasses others during in-game chats.



Do bullies rule in online gaming? Newsround asks video game streamer Vikkstar123 how he deals with online bullying whilst playing online.



What do you think?

Let's look at popular apps, platforms and online activities. **YouTube** remains a firm favourite among children. 5- to 15-year-olds are more likely to pick YouTube as their platform of choice over on-demand services such as Netflix or TV channels including the BBC and ITV. Do you prefer YouTube to normal TV?

Children's social media use is changing. **WhatsApp** in particular has gained popularity over the past year, joining **Facebook**, **Snapchat** and **Instagram** as one of the top social media platforms used by children. Do you or your friends use social media? If so what apps?


Newer platforms such as **TikTok** and **Twitch** are gaining popularity. TikTok is used by 13% of 12- to 15-year olds – up from 8% in 2018 – while Twitch is used by 5%.

Girl gamers are on the increase. Almost half of girls aged 5-15 now play games online – up from 39% in 2018.

PLEASE REMEMBER! Social media platforms are designed for adults and have an age requirement of 13! Talk to your parents or teacher before using any of these apps.

8-11 year olds

- ▶ 37% have their own smartphone
- ▶ 49% have their own tablet
- ▶ 49% use a smartphone to go online, and 72% use a tablet to go online
- ▶ 45% who own a mobile phone are allowed to take it to bed with them, while 32% of tablet owners are allowed to do this
- ▶ 25% use a smart speaker in the home
- ▶ 92% watch TV on a TV set, while 42% use a tablet, and 22% use a mobile phone to watch TV
- ▶ 99% watch TV programmes or films (on any device), for 10hrs 30mins a week
- ▶ 74% watch live broadcast TV, and 78% watch video-on-demand content*
- ▶ 79% play games, for 9hrs 30mins a week
- ▶ 66% play games online
- ▶ 74% watch YouTube, for 10hrs a week
- ▶ 27% watch YouTubers or vloggers
- ▶ 21% of online users have a social media profile





Important Words:

Bluetooth

Is a way of wirelessly exchanging of data over short distances.

Chat

To talk online in a friendly or easy manner.

Communication

To exchange thoughts, ideas, or information online. This could be talking, photos, video or text.

Digital

Storing, using, or sending information electronically in the form of numbers. A computer is a digital device.

Download

A computer file that is sent from one computer to another. She keeps all of her downloads in one folder.

Follow

To make friends with someone online and follow (see) what they share online.

Link

A button with a web address that when clicked will open that web page on your computer.

Online

Another name for using the internet or web.

Online bullying

The abuse and mistreatment of someone online.

Online game

A game that requires the internet. Also game were players can play against others who are not in the same room.

Personal information

Information about you, address, school, age, passwords etc.

Search

To use a search engine to find information online.

Send / Share

To send a message, photo or video using an online communication app to one or more people.

Sign-in / Log in

To join a particular online website or app. When signed in more features are available.

Trusted adult

A trusted adult is someone that you have a good relationship with. It is someone who you think has your best interests in mind. Parents and teachers etc.

Website

An information page online that can only be accessed using the internet.

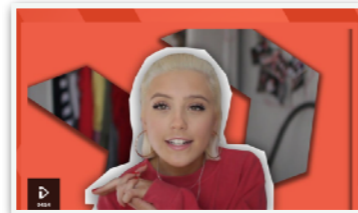
Wireless (Wifi)

Is a way of connecting computers and digital devices to the internet and each other.

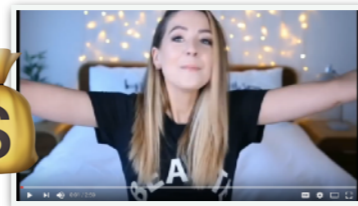
Videos to watch:



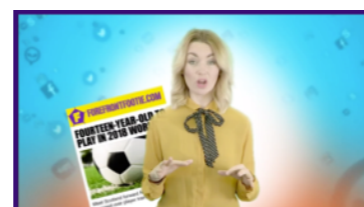
What is a Vlog? Find out more, [watch this video.](#)



What's it like being a blogger on YouTube? [Find out more.](#)



How do bloggers make money on YouTube? [Find out more.](#)



What is 'Fake News?'. [Find out more.](#)



The Best and Worst of Life Online [Watch video.](#)

What is E-Commerce?

Companies conducting business online, selling and buying. Always get the bill payer's permission before checking out.

Only shop on trusted sites so you aren't a victim of fraud. Be aware that cookies track which pages you visit so shops may send you targeted adverts or change their prices. Two of the biggest in the UK are Amazon and eBay.



What is blogging?

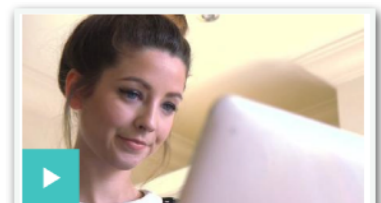
A blog is a website of your own where you enter information ordered by date. It can also be called an online diary or online journal that is shared with others online. Why might blog posts be censored? Sometimes people can publish things online that are illegal or offensive. In these instances, the published document can be removed, banned or content can be restricted. It is important to consider what you publish very carefully.

What is vlogging?

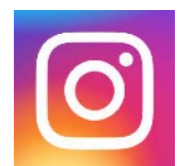
A Vlog is simply a blog that includes video content. The first vlog can be traced back to 2000. Vlogging really took off after YouTube was launched in 2005 and the rise of the Smartphone which provides easy access to those who want to vlog.

The smartphone also allowed vloggers to film their daily experiences. Today 44% of all internet users watch a vlog at least once a month.

If you fancy creating your own vlog. Get your parents permission first. Never give out personal information. Make your own original content so you aren't breaking copyright laws. Be kind! Block and report any online bullies or even turn off comments. Be aware that viral videos might be fake.



Zoella - how I deal with cyberbullying





What are group emails?

Email is a great way to send a message. This can be very useful if you want to share a message or document with a group of people all at once.

When you send an email, the recipient can either reply to just the sender or reply to all other recipients too. If you 'reply to all', all the other people included in the email will also be able to read your reply.

When sending emails you can also 'cc' in recipients and 'bcc' recipients.

CC stands for 'carbon copy'. It is useful when you want someone else to receive a copy of an email, but they aren't one of the primary recipients. You want the recipients of the message to know the other people who have been sent the message.

BCC stands for 'blind carbon copy'. BCC is a useful way to let others see an email you have sent without the main recipient knowing.

How do we use the Internet?

The Internet is useful because it lets people communicate and share information across the world quickly and easily.

- **Social Media:** Message friends, share photos and find followers.
- **Communication:** Send messages to people and collaborate on ideas.
- **Broadcasting:** Stream videos, listen to music or radio stations and watch programmes on catchup.
- **World Wide Web:** View pages of multimedia information about different topics.

The Impact of Technology

Advances in technology has changed all areas of life. How does it directly impact you?

Advantages

- Online shops let you buy things from home quickly and easily. Often with next day delivery.
- Robots have enabled mass production of goods and do tasks quickly and don't get bored.
- Information is stored on computers so fewer trees are cut down for paper.
- Cloud computing lets people work anywhere.
- Children have fun playing computer games.

Disadvantages

- Real shops have been forced to close.
- This has meant some people have lost jobs.
- More electricity is needed which could be bad for the environment.
- Worries about hackers and lack of socialising.
- Too much screen time causes sleep problems.

Tips for Effective Web Searching

Use keywords. E.g. Capital city France. Use inverted commas to find exact names. E.g. "Queen Elizabeth" "Chinese New Year".

Cross reference (compare) websites to check the information on them is real and reliable.

Put information into your own words to avoid plagiarism (copying someone else's work and pretending it's yours).

Let's compare Search Engines. Visit the links below and consider these questions.

- Which has the nicest design?
- Which has the fewest adverts?
- Which includes fact boxes in the results?
- Which shows you the most useful results?



Google



Duck Duck Go



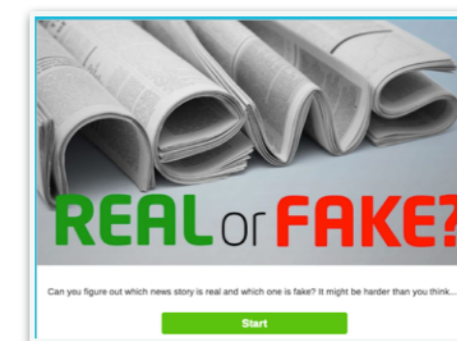
Yahoo



Bing

Can you spot Fake News?

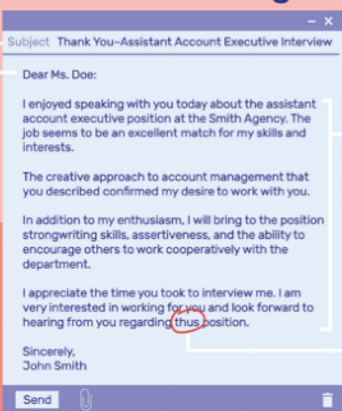
Take the quiz in the link below to see whether you can spot a fake news article or not!



Professional Email Message Guidelines

Subject Line:

Concisely convey your purpose for writing



Length

Keep it as concise as possible

Greeting

Always include a greeting

Emoticons

Avoid in professional emails

Font Style

Avoid ornate, playful or colored fonts

Spelling & Grammar

Edit carefully before sending



Digital Literacy

Post Knowledge Quiz

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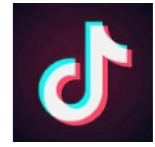
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Instagram



eMail



TikTok

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