

VOCABULARY

Blocks: There are different types of action blocks in Scratch that change your sprite (object or character) E.g motion blocks, input blocks, forever blocks, costume blocks,

-**Control block:** Uses timings, e.g. wait, stop, set speed or repeat

-**End blocks:** Ends the script, directs it to another page or uses forever loop

-**Event blocks-** control events and the triggering of scripts

-**Looks blocks:** control how a sprite looks or what it says

-**Motion Blocks:** control a Sprite's movement.

-**Sound blocks:** control sounds

-**Triggering blocks:** Variety of blocks to begin a type of code

Code: A set of instructions used for different programs

Commands: A single part of a program. It tells the computer to do one action. A command may be one line or several lines long

Debug: To find and remove errors from computer hardware or software.

Execute: Run a program,press go, start the algorithm or instructions

Loops: part of a command that repeats

Program: a stored set of instructions put into the computer in a language understood by the computer that does some form of thinking and then creates an outcome

Sequence: to place programming instructions in order

Script: A short program that is usually written for one task. Often used to create repetitive tasks to save time

Sprite: An object, image or character in Scratch Jnr that can be controlled using commands



COMPUTING KNOWLEDGE MAT

YEAR 6 COMPUTER SCIENCE

MAIN IDEA

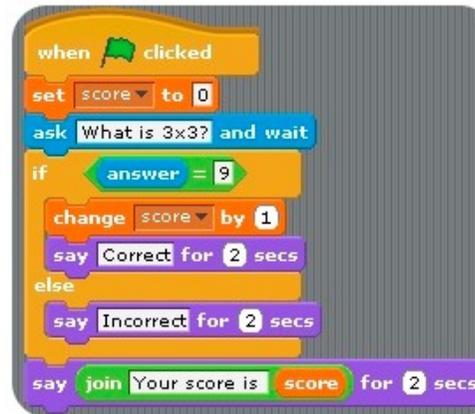
Pupils will design, write and debug maths quiz game, setting different levels appropriate for different age groups. They will need to consider which questions to ask, how to score their answers and use timers within each question

WHAT CAME BEFORE

Year 5—To create a space maze game

WHAT COMES NEXT

Year 7– Use at least two programming languages to solve a variety of computer problems



WHAT YOU SHOULD ALREADY KNOW

- How to create a simple animation
- How to create a simple maze game
- How to personalise your own backgrounds and sprites

KEY LEARNING

Pupils will design, write and debug a maths quiz game for another pupil to play.

Pupils will decide on their questions and choose appropriate outcomes if the correct/incorrect answer is selected. They will have to decide whether to use sound effects, visual changes and how to score answers. Pupils might decide to assign a number of 'lives' to each player.

They will need to ensure that their game is appropriate for their peers and that the reactions and outcomes are suitable for a correct or incorrect answer.

Pupils can alter their game for a different age range and decide what adaptations would be needed for younger pupils, such as easier questions, more 'lives' and longer to answer questions.

INVESTIGATE / QUESTIONS

- Which scoring system should I use?
- How can I change...?
- What will happen to my game if I..?
- How should I rank my questions

VOCABULARY

Bookmarks/Favourites: A way to mark a web page you like. Your web browser can save a list of pages that you want to look at frequently.

CEOP: A website to report any pages that you are concerned about. You can contact CEOP if you have any concerns about online behaviour or protection

Copyright: A law against copying. You do not have the right to make a copy of someone else's work without permission.

Email: A way to send and receive messages using an internet connection

Email Address: The person sending/receiving an email will have its own address. There will always be an @ sign in an email address.

Fact: Something that is correct, true and accurate.

Hyperlink: A word, image or phrase in a document that when clicked, takes you to another document.

Internet: A world-wide connection of computers connected by communication links. There are many services available such as email and the World Wide Web.

Network: A group of computers that are joined together by communication links. They can share data and software as well.

Opinion: A person or group's personal belief.

Search Engine: A type of software on a website that helps you find out information (Google, Bing, Yahoo etc)

Search Results: The results of the search are shown as links to the web pages that match the search term

Web Browser: A program that enables us to access different webpages (Internet Explorer, Google Chrome, Mozilla Firefox etc)

World Wide Web (WWW). : The world wide web is made up of all the web pages in the world connected through the internet.



COMPUTING KNOWLEDGE MAT 2

YEAR 6 COMPUTER SCIENCE

MAIN IDEA

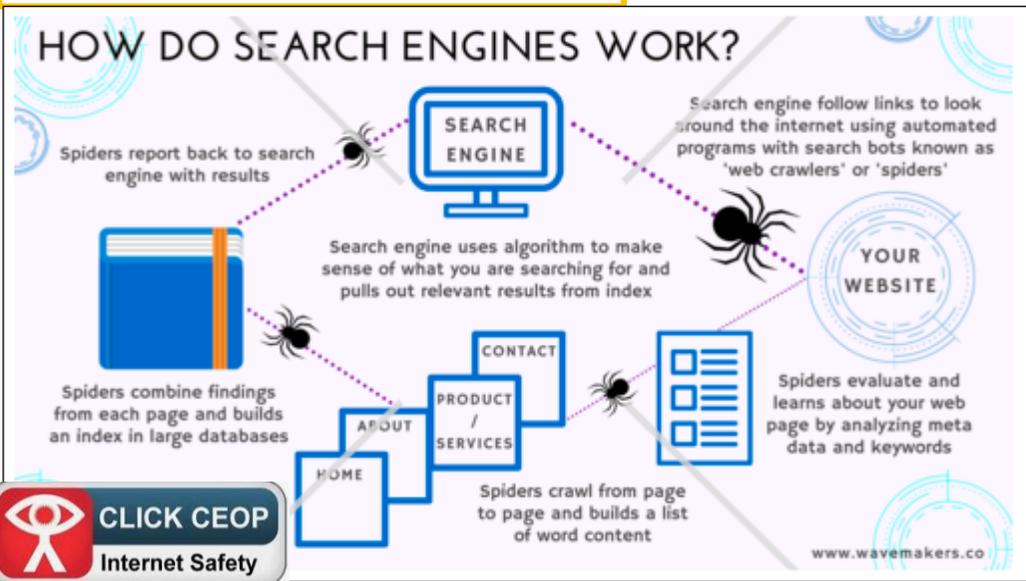
To use search technologies effectively, talk about how results are selected and ranked. Pupils will also learn to look at the reliability of different websites and sources and appreciate which information is more or less reliable and whether it is based on fact or opinion and the motives for this.

WHAT CAME BEFORE

Year 5—How networks are formed and used

WHAT COMES NEXT

Year 7—understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems



WHAT YOU SHOULD ALREADY KNOW

- That the internet uses a range of web browsers and search engines and pupils can identify some
- The difference between the internet and the World Wide Web
- How information is sent or retrieved through 'packet switching'

KEY LEARNING

Pupils will have the opportunities to search for information using different search engines and discuss appropriate wording and why you need to be concise and specific when searching. They will investigate how search engines rely on specifying the right keyword, skimming and scanning the results to see which seems most relevant, and distinguishing between the main results and adverts presented as sponsored results. It may also involve using other features of the search engine, including searching for phrases rather than keywords, or limiting searches to a particular time frame, language, reading level or website. When comparing search engines, pupils will look at how and why results are different depending on the search engine used. They will also look at the reliability of different websites .

Pupils will bookmark particular websites so that they can return to them quick and easily and insert hyperlinks into their work so that someone else can access a specific website.

Pupils will learn about the safety element of searching and how to search as safely as possible, including which search engines are more suitable for children. They will learn strategies for keeping themselves and others safe and discuss what to do if something concerns them.

INVESTIGATE / QUESTIONS

- Which search engine should I use to..
- Why are search engines results order as they are?
- Which information is more reliable and how do I know?

VOCABULARY

CTRL: A shortcut key on the keyboard

Import: to bring information in from another file

Page Orientation: How you want the page to be viewed, landscape or portrait

Slide: One page of the presentation

Themes: pre-set colours and layouts to use as a basis for your presentation

Toolbar: Where all of the options to edit your work are

Main Toolbar Options:

- **File:** The toolbar for opening, saving and printing the document
- **Home:** toolbar for most style options such as; font, sizing, bold, underline,
- **Insert:** Options to put additional features into the page such as shapes, text box, borders,
- **Design:** Main layout of the page including: orientation, margins and size
- **Transitions:** Various ways to make your information appear and disappear
- **Animations:** Effects that bring the information to life
- **Slideshow:** How your slides are organised
- **Review:** Options to edit the powerpoint by adding in extra notes
- **View:** How close or far away you want to see your work. You can select 'whole page' or use the % number box to zoom in or out



COMPUTING KNOWLEDGE MAT

YEAR 6 INFORMATION TECHNOLOGY

MAIN IDEA

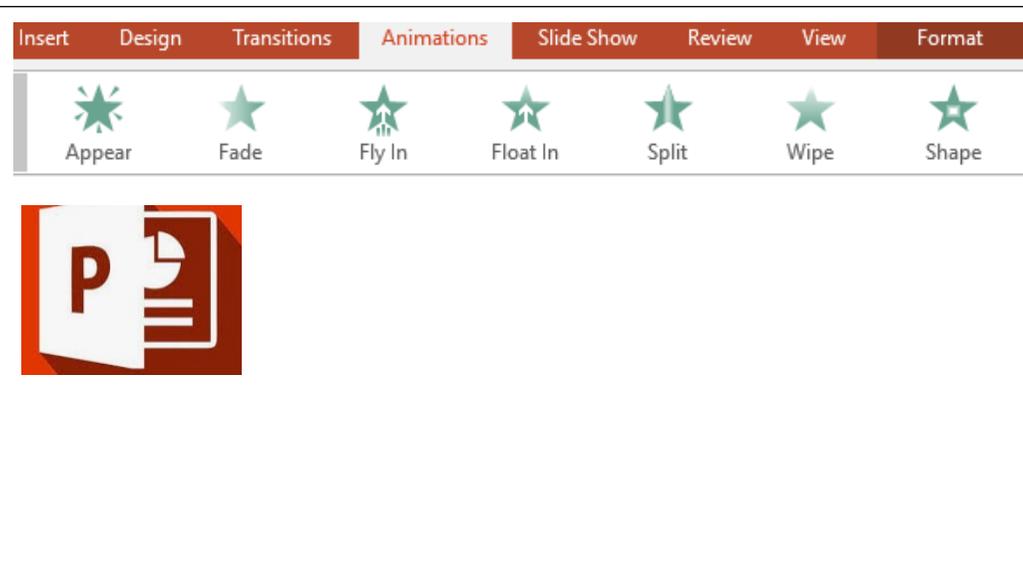
Pupils will design their own powerpoints and present it to their peers. They will need to consider the different tools that they use to ensure that they present facts accurately and clearly but also in a way that is engaging.

WHAT CAME BEFORE

Year 5– Representing information using Microsoft Word

WHAT COMES NEXT

Year 7–



WHAT YOU SHOULD ALREADY KNOW

- The general layout of Microsoft
- How all the applications in Microsoft have similar toolbar options and that the skills you have learnt with a different application are transferrable
- Be confident and proficient using Microsoft Word, Publisher and Excel

KEY LEARNING

Pupils will identify the main features of the presentation and its purpose.

Pupils will have to group their work and organise it into appropriate chunks so that it makes sense on a slide.

They will use features such as text boxes, shapes, insert and resize images and edit them where necessary.

Pupils will have the opportunity to experiment with the different animations and transitions to make the presentation more engaging but they will also need to ensure that the information stays clear and isn't lost amongst additional features.

Pupils will use the Review function to add in extra notes and comments that will help them to deliver a strong and confident presentation.

Pupils will then deliver their presentations to their peers in class.

INVESTIGATE / QUESTIONS

Which features should I use to make my presentation more engaging?

How can I organise my slides to ensure the work is clear and concise?

What should I do to help me remember key

VOCABULARY

Adverts: Pop up adverts sometimes appear on screens. They should not be clicked on. Ask an adult to help you close them.

Apps: Short for application. You download apps onto your smart phone/tablet/ computer. They can be games or useful tools etc.

Consent: Asking someone if they agree to something being shared that is either theirs or of them (e.g their work/photos)

Digital Footprint: Something that is shared online remains online, there is always a trace of it even if deleted.

Passwords: A group of letters, number and/ or symbols that are personal to you so you can access your work.

Permission: The right to access data

Personal Information: Information about you that you should not share with strangers e.g. full name, address, phone number

Private: Not sharing information

Privacy Settings: Aspects that you can check that restrict or limit what others can see

Reliable: Whether something is accurate or true

SPAM: Unwanted messages, often contain adverts, scams or viruses

Username: Usually something similar to your name to identify you on the computer. Used with passwords to log in.

Viruses: Software that damages your computer



COMPUTING KNOWLEDGE MAT

Year 5 & 6 Digital Literacy

MAIN IDEA

Pupils will revisit the idea of online behaviours and what is acceptable and unacceptable. Pupils will talk about sharing of information and images and the impact that this can have. They will also look at how information and images is manipulated and altered.

WHAT CAME BEFORE

LKS2- How to recognise cyber-bullying and what to do about it.

WHAT COMES NEXT

Year 7- Continued look at online safety

Remember
 *If something doesn't feel right, tell someone you trust.
 *All social networking sites and YouTube have 'report' buttons, use them!

Report to CEOP if you are worried about anything online

CLICK CEOP
 Internet Safety

KEEP IT TAME
 Respect each other online
 You can use phones, tablets and computers to do awesome stuff. But things can turn nasty if you use them to disrespect each other. Treat each other with respect and Keep It Tame.

childline
 ONLINE, ON THE PHONE, ANYTIME
 Call 0800 1111

The 4Rs of online safety
 Follow the 4 Rs

- Respect**
I treat myself and others the way I like to be treated
- Responsibility**
I am accountable for my actions
- Reasoning**
I question what is real
- Resilience**
I get back up from tough situations

Check Pegi ratings of games and websites

3 12+ 18
 www.pegi.info www.pegi.info www.pegi.info

WHAT YOU SHOULD ALREADY KNOW

- What is acceptable and unacceptable online behavior and who to speak to about it
- That sharing content online leaves a digital trail or footprint
- That accepting or clicking links can lead to viruses on your device

KEY LEARNING

Pupils will revisit the acceptable usage policy and talk about what it mean; understanding the risks, responsibilities and consequences of sharing inappropriate images. Pupils will recognise that online behaviour can have real life negative effects on other people and understand that we must take responsibility for our own actions online, regardless of what other people are doing. Pupils will also discuss consent and permission and look at the implications of sharing images and selfies. Pupils will look at the impact of screenshots and understand that anyone can take a screenshot of a message or photograph that is sent.

Pupils will revisit many aspects from LKS2, including digital footprints, viruses, scams and the variety of 'reporting' options available to them.

Pupils will explore further the range of privacy settings available and how they keep everyone safe online, including identity theft.

Pupils will look at the range of content available and talk about the reliability of different websites, information and images. They will discuss why things are shared that aren't necessarily true and the impact of misinformation being shared in this way. Pupils will look at how and why images are edited and altered and the consequences of this, in particular- celebrity images and mental well being.

Pupils and students explore how the media can play a powerful role in shaping our ideas about girls and boys. They practice identifying messages about gender roles

INVESTIGATE / QUESTIONS

How might your friend feel if you shared a silly photograph of them? How can you ask for support or help? If someone is mean once (or by accident), is it bullying? Is your use the internet now different to how it was a year ago? How? Who is the audience / reader of your site? Why is it important to know? Why is it important to not take someone else's work and pass it off as your own? Which online safety rule do you think is the most important? How can you ask for support or help?