



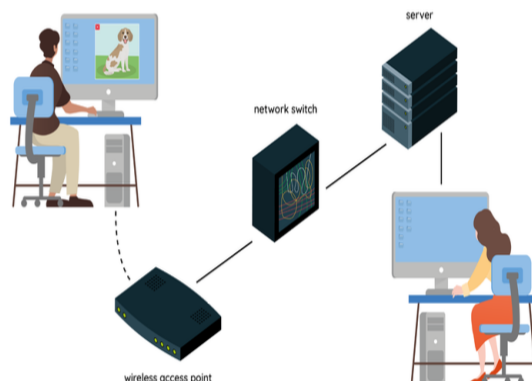
Computing Year 3 Autumn 1 Computer Systems & Networks 1: Networks



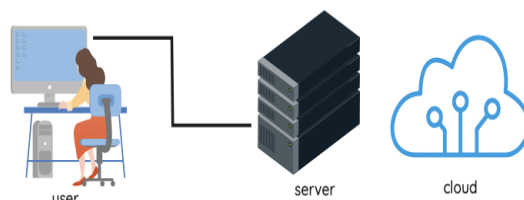
Key Vocabulary

device	Equipment created for a certain purpose or job.
internet	A global network of computers and servers that share and exchange information.
network	Multiple devices connected via the internet or a local network to share files and information.
network switch	A device that deals with the movement of network information.
packet data	The transmission of data in small pieces over a network, which are then reassembled at their destination.
router	A device that provides internet access to a network via wired or wireless connections.
server	A computer that supplies data and information to other devices.
the cloud	Refers to data and files that are stored and accessed on servers via the internet.
user	An individual who uses a computer and its applications.
Wi-Fi	A wireless network connection that allows devices to connect without cables.
wired	A 'wired' device is connected to the network via cables.
wireless	A 'wireless' device connects to the network via signals.
wireless access point	A device that enables other electronic devices to connect wirelessly to the internet.

When a file is shared, it travels through these devices on the network.



Different files can be sent through a network, including music, videos and photos.



When a user requests a website, the server retrieves its stored data and sends it back as the displayed website.

Online Safety

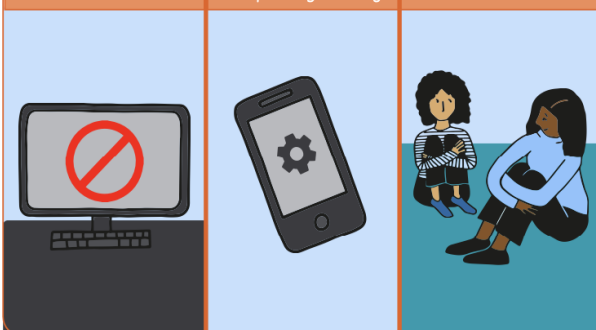
auto complete	When software guesses what is being typed and suggests a word or phrase.
belief	Something we accept to exist or be true, usually without proof.
fact	Something that can be proven to be true by evidence.
fake news	Online news or stories that are not true.
opinion	A view or judgement about something.
privacy settings	The controls put in place to manage what kind of information and how much of your information can be shared with or seen by other people and companies.
social media platforms	Websites and apps where people can share information about what is happening in their lives (e.g. Snapchat, Instagram, Twitter, etc).

If something online makes you feel uncomfortable or scared:

Block it and report it.

Check your device and privacy settings.

Tell a trusted adult.



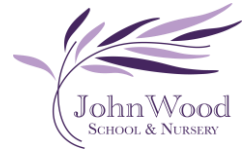
Prior Learning:

Reception: Computing systems and networks 1: Using a computer.
Year 1: Improving mouse skills. Year 2: What is a computer?





Computing Year 3 Autumn 2 Programming : Scratch



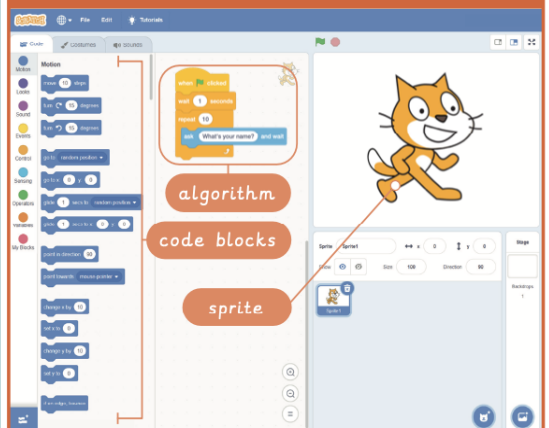
Key Vocabulary

algorithm	Steps or instructions to solve a problem or complete a task.
animation	Bringing concepts to life through 2D or 3D moving pictures or photographs, e.g. cartoons.
coding	Writing instructions for a computer.
code block	Similar to puzzle pieces, they can be dragged, dropped and snapped together to create an algorithm.
debug	To find and fix errors in code.
decomposition	Breaking a problem into smaller parts.
loop	A repeated sequence of instructions.
remixing code	Altering code that already exists.
sprite	An image or character that moves or reacts to commands.
tinker	To explore and play with something to discover its key functions.

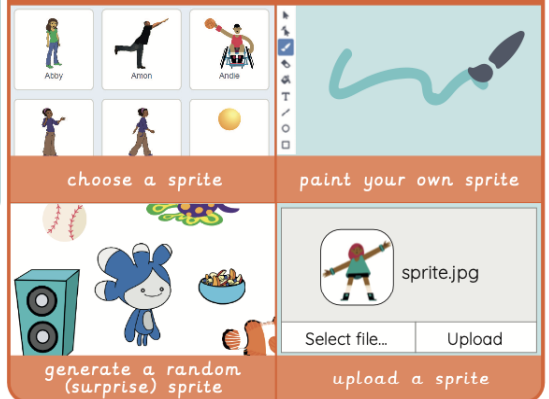
Scratch code blocks colour key:



Scratch is a coding program in which you can develop interactive games and animations.



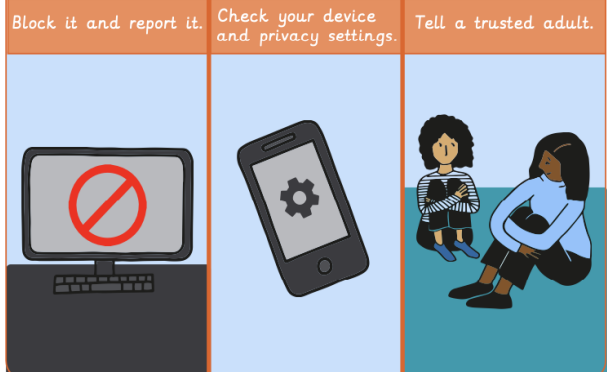
There are four different ways to add a sprite.



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Prior Learning:

Reception: Programming 1: All about instructions. Year 1: Programming 1: Algorithms Unplugged. Year 2: Programming 1: Algorithms unplugged.



Computing

Year 3

Spring 1

Computing systems and networks 2: Emailing



Key Vocabulary

Account	An online or intranet service, which stores information safely behind a username and password.
Attachment (email)	A function that lets you add files to an electronic message (email) before sending.
BCC	Blind Carbon Copy allows you to send a copy of the email written to another person's email address, but other readers will not be able to see this in their email thread.
CC	Carbon Copy lets you send a copy of the email you have written to another person's email address.
Computer	Electronic machines that accept and process information to produce an output, and then store the results.
Cyberbully	Someone who bullies others through the internet.
Cyberbullying	Constantly being unkind to someone using online platforms, for example email and instant messaging.
Domain	The online location or hosting website that the email address belongs to.
Email	Electronic-mail which allows us to send messages and files from one account to another over a network.
Email account	A central place where a user's emails are stored for them to view, and compose.
Emoji	Small icons that represent feelings or objects, commonly used in emails and instant messaging.
Information	Knowledge that can be remembered, written in documents or stored in different forms as data, such as in video files and audio recordings.
Log off	To lock your account.
Log on	To put in a username and password unique to you, to access your personal account.
Password	A unique combination of letters, numbers or symbols that protects personal information online.
Spam	Nonsense or junk emails, used for advertisement or harassment.
Username	A unique name or email address for your account.

⚠ Watch out for unexpected emails with unknown links. Inform a trusted adult.

Find the @ symbol on your keyboard here:



Email address examples

example@kapowprimary.com
example@domainname.co.uk

Example email compose window:



Online Safety

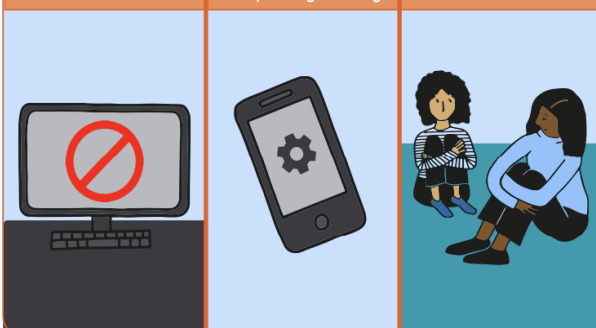
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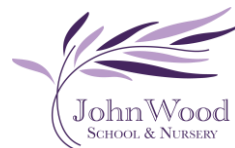
Prior Learning:

Reception: Computing systems and networks 1: Using a computer.
Year 1: Improving mouse skills. Year 2: Word Processing. Year 3: Networks.





Computing Year 3 Spring 2



Computing systems and networks 3: Journey inside a computer

Key Vocabulary

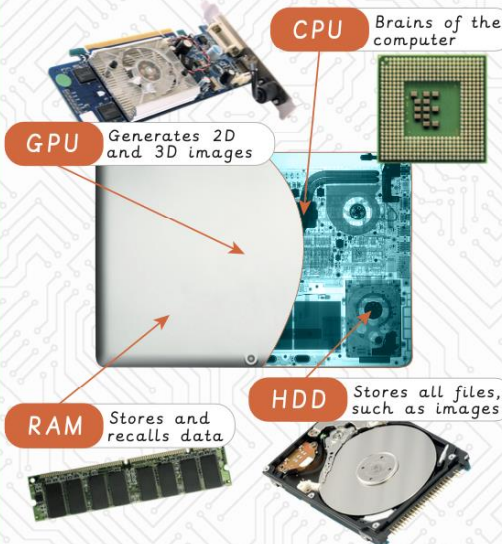
Algorithm	A sequence of instructions when followed, solve a problem.
Computer	Electronic machine that accepts and processes information to produce an output, and then stores the results.
Computer Program	A series of instructions, that are written for a computer to follow, using inputs and outputs to produce an outcome. Also known as software or applications (apps).
CPU	Central Processing Unit. The brain of a computer that deals with all the data it receives from input and output devices, as well as programs run within the computer.
Data	Information used for a specific purpose or investigation.
Desktop	A tower computer that needs a mouse, keyboard and monitor, that remains in one place.
GPU	Graphics Processing Unit. It is a piece of hardware that is used to help generate 2D and 3D images for programs such as games.
Hard disk drive HDD	An internal or external device that can store information such as files, documents, images and programs.
Instructions	A series of steps that need to be performed in order.
QR code	Quick Response code. Is presented in a similar way to a bar code and when scanned, takes you to a specific website or provide information.
RAM	Random Access Memory. A piece of hardware that allows data to be recalled or stored within a computer.
ROM	Read Only Memory. Information stored within ROM can only be read and not edited.
Tablet device	A handheld computer, that consists of a touchscreen, operating system and a rechargeable battery.
Trackpad	An input device commonly found built into laptops. It is used to move the cursor with the touch of your finger, and some allow for multiple finger gestures.



Scan each of these quick response codes, with a QR scanner app or device and see where they go!



Computer parts inside of a laptop:



Other portable electronic devices:



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Prior Learning:

Reception: Using a computer. Year1: Improving mouse skills. Year 2: What is a computer? and Word Processing. Year 3: Networks & Emailing.



Computing Year 3 Summer 1 Creating Media: Video Trailers



Key Vocabulary

Application	A computer program, sometimes referred to as an app.
Desktop	A tower computer that needs a mouse, keyboard and monitor, that remains in one place.
Digital device	Electronic devices that operate off a binary system in 1s and 0s.
Edit	To change and amend something.
Film	Recorded moving pictures, that can make up a clip or film.
Film editing software	Software with editing abilities to cut, crop and add effects to video footage.
Graphics	The use of images or visuals designed to communicate, demonstrate a concept or promote something.
Import (software)	To pull another file into software, to place, edit and manipulate.
Key events	Important parts within a narrative or a particular period in time.
Laptop	A compact computer that is easy to carry and move around.
Plan	An idea about how to do something in future.
Recording (media)	To capture sounds or video footage, using an electronic device.
Sound effects	Sounds to enhance an event or bring fantasy aspects to life in a film or other media, for example, the whoosh of a time machine.
Time code	Time references on film or animations.
Video	Recorded moving pictures, that can make up a clip or film.
Voiceover	A voice recording which overlays a video or presentation.

Did you know?

Digital sound waves can be viewed and edited on a computer. They look like this:



Transitions are visual effects that can be applied to occur in-between digital media (slides, images or video clips).

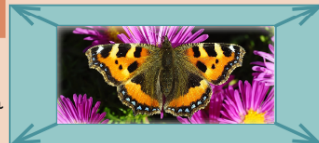
Morph

The media appears from a selected corner.



Cross zoom

The media zooms and fades in from the middle.



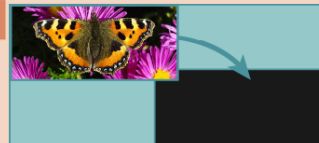
Peel off

The page peels off to reveal the media.



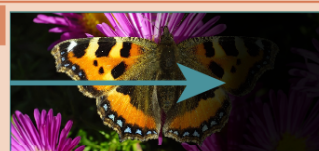
Dip to black

The media fades to a black screen.



Directional wipe

The media appears from a selected side.



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Prior Learning:

Reception - Computing systems and networks 2: Exploring hardware.
Year 1: Creating Media: Digital Imagery. Year 2: Creating Media: Stop Motion.





Computing

Year 3

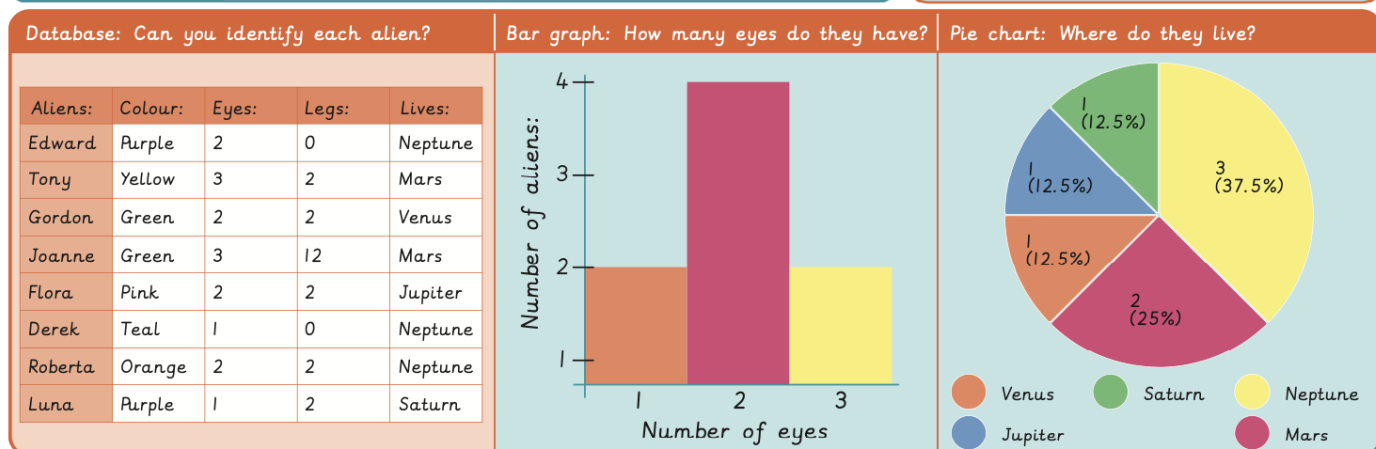
Summer 2

Data Handling: Comparison Cards Databases



Key Vocabulary

Categorise	Put into groups which have similar or the same properties.
Data	Information used for a specific purpose or investigation.
Database	For collecting and organising data stored on an electronic device.
Fields (data)	Categories which information can be sorted into.
Filter (data)	Displays specified or selected data types.
Graphs and charts	Visual methods of representing data.
Information	Knowledge which can be remembered, written in documents or stored in different forms as data, such as in video files and audio recordings.
Record	To log information in the present (for example data during a science experiment), to look back on it in the future.
Sort	To arrange items by an order or into a category.
Spreadsheet	A file where you can input, sort and analyse data across a series of cells.



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Prior Learning:

Reception - Data Handling: Introduction to data. Year 1: Data Handling: Introduction to data. Year 2: International Space Station.

