

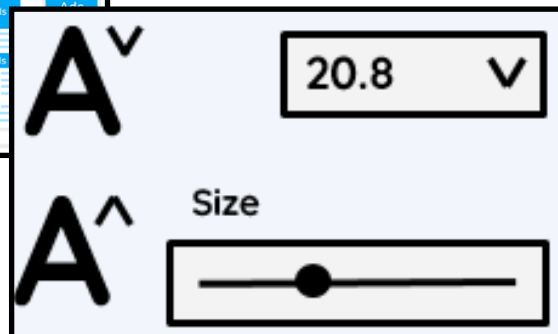
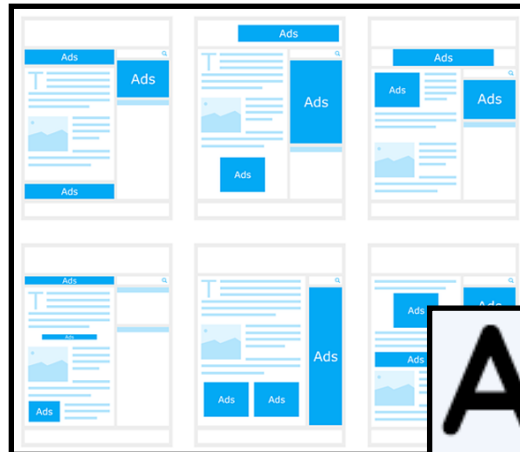
# Year 3 Computing Knowledge Organisers



### Online Safety and Digital Literacy

It is important to have secure passwords that are kept private. Information should only be shared with trusted people. If anything online makes children feel uncomfortable, sad or frightened then they should show a trusted adult. Devices that are connected can collect and share anyone's information with others and it is virtually impossible to delete information sent online.

We can search for information about others online. People may or may not be willing to share information about themselves online. We need to be careful before sharing anything personal.



### Vocabulary

Images	Pictures—either photographs or illustrated—that can be added to a document
Font	The style of text we choose to write in
Template	A pre-arranged layout that we can use to create our own document
Orientation	Whether a document is created as portrait or landscape
Placeholder	Boxes that show where text or an image is going to go.

- Text and images can be used together to give information to others
- Different layouts can suit different purposes
- Documents created using a publisher can have placeholders to show where information or images will be added later
- Different fonts and effects can be used depending on the purpose of the document
- Page orientation can be changed as well as the layout of the page depending on the purpose
- Placeholders, images and boxes of text can be resized, moved and rotated.

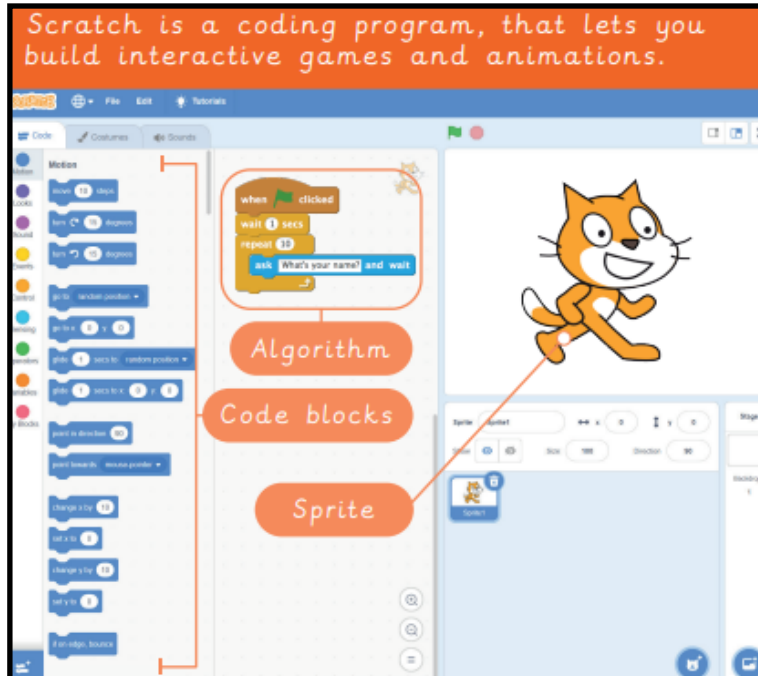
## Computing Knowledge– Year 3—Autumn 2—Programming

### Online Safety and Digital Literacy

Search engines use key phrases and keywords to search for information online. Autocomplete is based on common searches and it is important to choose the best suggestion, considering the word order. Not everything on the internet is fact, and there are lots of examples where opinions might be shared. Not all opinions are accepted as true or fair by others. The internet can also be used to sell and buy things.

### Vocabulary

Algorithm	A clear set of instructions for a computer to follow
Input	Information or data we give to the computer; can be a signal to start a program
Code	A set of instructions written in programming language that tells a computer what to do
Output	The result of a process; what a program or device shows
Process	The sequence of a program



- Computers rely on input to tell them what to do; this can be as simple as a keyboard or mouse.
- Algorithms are used to program computers. On Scratch, they are used to program sprites and allow them to move
- Users can change the design and size of their sprite and can choose their background too.
- We need to test code as we build it to make sure that the final product will work
- We can build a sequence of commands and combine them into a program
- By creating a sequence of commands we can produce a given outcome

## Computing Knowledge– Year 3—Spring 1—Branching Databases

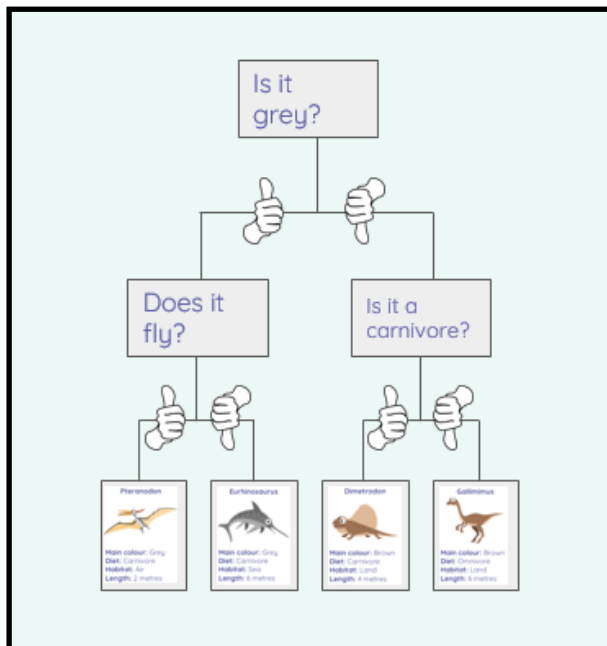
### Online Safety and Digital Literacy

People who have similar likes and interested can get together online. It is important to recognise, however, the difference between knowing someone online and offline. Trusting someone online is also different to liking someone online, and it is important to be careful about who to trust and who to share information with.

Someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. Someone's feelings could be hurt by what is said or written online. Is it important to give and gain permission before sharing things online.

### Vocabulary

Attribute	A feature or a characteristic of something
Database	A set of data in a computer, accessed and organised in various ways
Branching database	A database classified by yes or no questions
Subgroup	Smaller groups; decided based on a classification
Retrieval	A way of finding and accessing information



- Information can be stored on a computer in a number of different ways
- Databases are one particular way of storing information and retrieving it later
- A branching database is a way of accessing information through a series of yes or no questions
- Branching databases are useful as identification tools
- Subgroups are formed depending on the classification of the objects



## Computing Knowledge– Year 3—Spring 2—Scratch and Logo

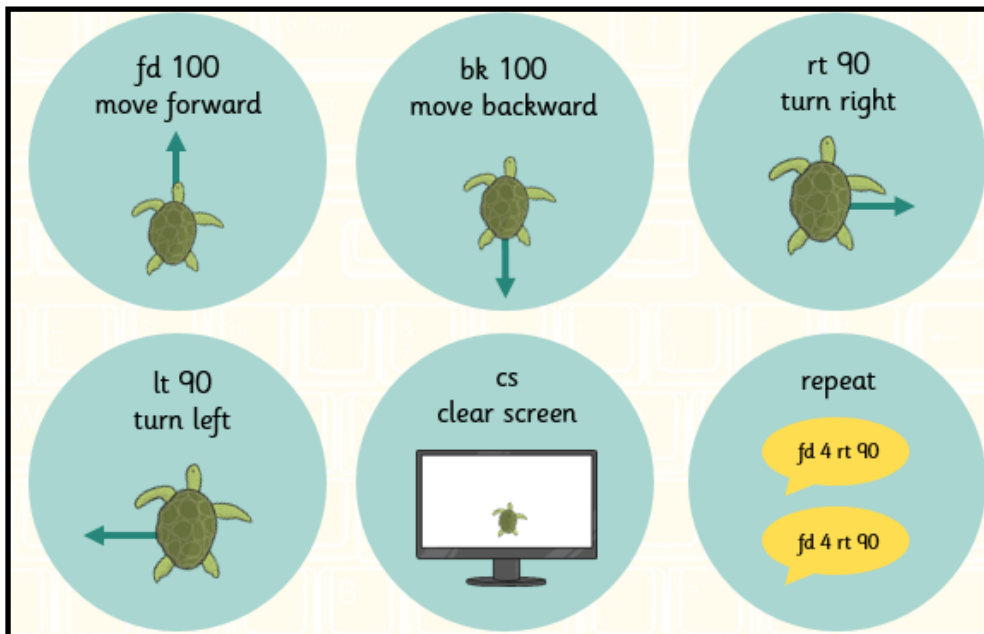
### Online Safety and Digital Literacy

Spending too much time using technology can sometimes have an effect on anyone. It can impact mood, sleep, body and relationships. There are both positive and negative activities where it is easy to spend a lot of time engaged. Some online activities have age restrictions and it is important to follow these. Trusted adults can help if you feel unsafe and can help if we feel pressured to watch or do something online that makes us feel uncomfortable.

It is important to behave appropriately to others online so that they feel safe and supported. There are a range of appropriate behaviours associated with being online. Bullying behaviour can appear online as well as in the physical world, and people should tell a trusted adult if they see something that makes them feel unsafe or uncomfortable.

### Vocabulary

Input	Something which tells the computer or device what to do
Sequence	A series of commands given as part of a program
Process	A computer program taking place for a purpose
Program	Giving a computer instructions to follow
Interactive	Allows two-way communication between a computer and a person



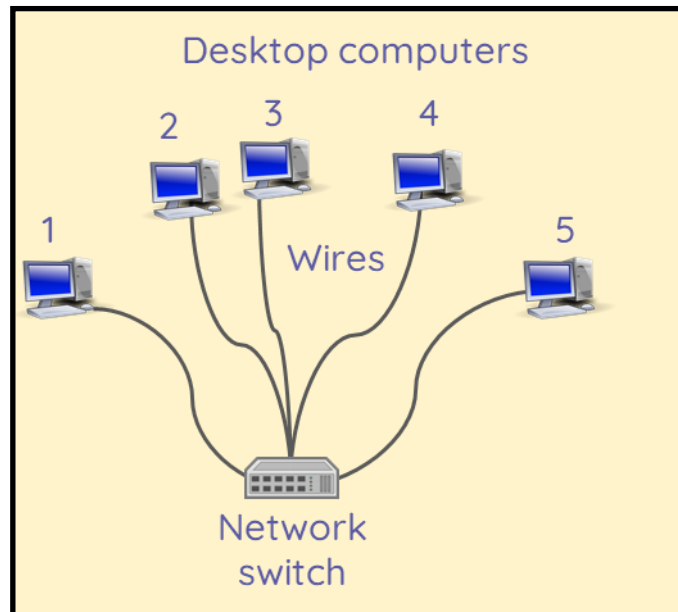
- Programs start because of an input and take place as a process
- A program includes sequences of commands
- The order of commands can affect a program's output
- Different sequences can achieve the same output
- Different sequences can also achieve different outputs
- Commands can be combined in different orders in order to create a given outcome

### Online Safety and Digital Literacy

Just like with work offline, we cannot copy someone else's work from the internet without permission. To do so is unfair and can cause problems, especially when we claim that it is our own work.

### Vocabulary

Input	Something which tells the computer or device what to do
Output	Information or data that is sent by the computer to an output device e.g. printer, speakers
Process	A computer program taking place for a purpose
Networks	When more than one device is connected through the internet; for file sharing
Network switch	Connects devices within a network and passes information



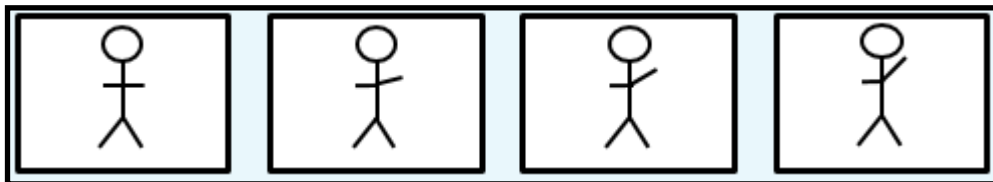
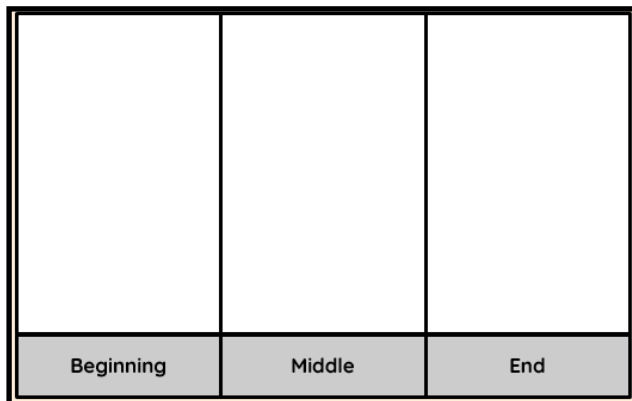
- Digital devices accept inputs and produce outputs
- When a device receives an input, it then starts a process by following the relevant program before producing the output.
- Some devices may be both input and output (e.g. touchscreens) while some devices may be neither (e.g. a cable)
- There are differences, advantages and disadvantages to using both digital and non-digital devices
- Computers can be linked together via a network
- Networks can be used to share information, sent via a network switch
- Files saved on the network server can be accessed by anyone in the network

## Computing Knowledge– Year 3—Summer 2—Animation

### Online Safety and Digital Literacy

People can represent themselves and their identities in different ways online.

They might choose to change their identity depending on what they are doing online. For example, they may choose to use an avatar when gaming or represent themselves differently on social media.



### Vocabulary

Animation	A sequence of images
Import	To bring in something from another file or folder
Export	To take a file and move it to a different program or folder
Storyboard	A way of planning animation frame by frame
Frame	A single image in an animation

- An animation is made up of a sequence of images put together to make it appear as though it is moving
- Smaller movements create smoother animation
- We can add in other media to animation
- Animations can be planned and designed using a storyboard
- Between frames, we can move the subject to create a new frame
- We can add or remove frames as needed to improve the animation