SCARCLIFFE PRIMARY SCHOOL

Computing Knowledge Organiser Class 3

What is computing? Computing is learning about using technology to make things **easier, better** or **quicker.**

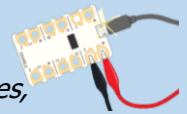
Computer Science - Systems and Networks:

(The Internet is a network of computers connected to each other all around the world.)

Networks:

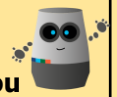
- Are a group of connected devices.
- The internet is a network of networks.
- The internet contains websites, webpages, pictures, information, videos and more.
- Some information on the internet isn't reliable.

Computer Science - Programming and Coding: (Programming is giving instructions to computers.)



- **Everyday devices are controlled by inputs and outputs which can be controlled by using code** – *kettles, traffic lights or automatic doors.*
- **An algorithm is a clear, precise set of instructions. -** *e.g. fd (forward), bd (backwards), rt (right), lt (left)*
- **You can use algorithms to solve problems.**
- **You can use repetitions and selection to shorten code.** *e.g. 'repeat 10.'*
- **Mistakes are called errors or bugs. You can fix these errors (debug) to make the algorithm work correctly.**

Digital Literacy – Using the internet and online safety:



- **You can use key words to find information online – you don't need to ask full questions-** *e.g. Brazil capital*
- **Scan through search results to decide which is most useful.**
- **Websites have addresses!** *e.g. www.bbc.co.uk.* **You can copy these to make a link in your work.**
- **Remember, some websites share false information. Check first!**
- **If you see something inappropriate, TAG (Tell A Grown up).**

Digital Literacy – Communication and collaboration

- **Speak to people online how you would in person –** *appropriate behaviour and communication.*
- **Don't give out personal information online –** *name, address, phone number.*
- **You can share your work using Seesaw or Purple Mash.**

Information Technology (IT) – Multimedia

- **Always think about what makes a good design –** *layout, colour, pictures, font…*
- **You can make a presentation more exciting by adding sounds, videos and pictures.**
- **Some pictures are owned and shouldn't be copied** *– copyright and plagiarism.*

Information Technology (IT) – Digital Imagery

- **To make an animation/ cartoon, you put together a sequence of still images.**
- **Be careful who you share images and work with.**
- **You can get images from different sources.**
- **You can edit or change an image to make it look different.** *E.g. crop*

Information Technology (IT) – Music and Sound

- **When recording your voice or sound, speak clearly and consider background noise.**
- **Layer sounds to make backing tracks.**
- **You can share your work using Seesaw.**
- **Be careful who you share work with.**

Information Technology (IT) - Data

- **Spreadsheets are a good place to collect, sort, present data and perform calculations.**
- **Data loggers are used to collect data –** *e.g. heart rates, noise levels.*
- **Continuous data is something that can be measured over time –** *e.g. height of a sunflower.*
- **Discrete data is something that can be counted in whole numbers -** *e.g. favourite animal.*
- **Know that you can use data to spot patterns and answer questions.**