SCARCLIFFE PRIMARY SCHOOL

Computing Knowledge Organiser
Class 4

<u>What is computing?</u> 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.

When using search engines (such as Swiggle) online, the results are organised in many different ways including:

- the number of links from other webpages to this webpage
- the number of time the keywords appear in the text on the page
- the use of the keywords in the URL
- how often the webpage is updated
- There are many different search engines which are designed for different purposes. Swiggle is perfect for children to search for information safely.

SWIGGLE CHILD FRIENDLY SEARCH

Pupil (P:)

Networks

- A computer network is a group of connected devices, such as computers, printers, smartphones, routers and hard drives.
- They link together to 'communicate' with each other and share information - *The Pupil section of our network!*
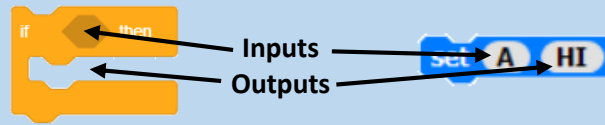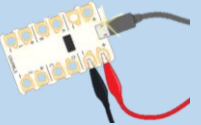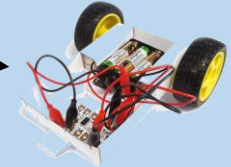
Computer Science - Programming and Coding:

- **Programming** is giving instructions to computers.
- **Computers can <u>control</u> many things in our daily lives** – *These can include: traffic lights, sensors, vending machines etc.*
- **Mistakes are called <u>errors</u> or <u>bugs</u>, and <u>debugging</u> helps fix them** – *Imagine if traffic lights stayed on green!*
- **<u>Variables</u> are something that can change and hold different information** – *Think of a scoreboard in football!*
- **<u>Inputs</u> are what we give to the program, and <u>outputs</u> are what it shows or does** – *When you tell the Crumble kit to light up (input), guess what, it lights up (output)!*

SCRATCH

Inputs

Outputs

Set A HI

Physical device →
Sprite (on screen)

Digital Literacy –
Using the internet and online safety:

PROJECT **EVOLVE** BETA

Self-Image and Identity	Online Relationships	Online Reputation	Online Bullying
• Gender • Stereotypes • Bias	• Behaviours • Interactions • Empower	• Profiles • Manage • Content	• Intervention • E-safety • Reporting

Managing Online Information	Health, Well-being and Lifestyle	Privacy and Security	Copyright and Ownership
• Searching • Ethics • Cookies	• Amplified • Well-being • Strategies	• Strategies • Protect • Compromised	• Crediting • Access • Distribution

Digital Literacy –
Communication and collaboration

Create content that can be shared on the school website or on Seesaw. Use programs (like Book Creator) to:

- Insert Hyperlinks
- Insert tables, flash files and games
- Embed videos
- Contribute the blog entries and make appropriate, supportive comments about the work of others.

Consider **LANGUAGE, LAYOUT** and **FORMAT** to best suit the task

Information Technology (IT) - Multimedia

Audience: Who are you making the media for? Is it suitable?

Purpose: What do you want the media to do? How best can you achieve this?

APPROPRIATE FONTS

Insert actions :
- Sound
- Home
- Hyperlink
- Link

PowerPoint
- Presentations
- Non-linear *(any order)*
- Linear *(in order)*

Word
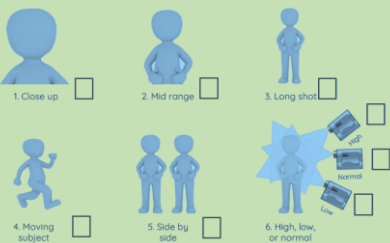- Any form of writing
- Create your own documents

Publisher
- Any form of writing
- Professional document layouts

Information Technology (IT) – Digital Imagery

Audience – *Who is our video for?*
Purpose – *What do we want our video to achieve?*

1. Close up
2. Mid range
3. Long shot
4. Moving subject
5. Side by side
6. High, low, or normal

Normal

- **Storyboards**
- **Animation**
- **Titles**
- **Credits**
- **Angles**
- **Perspective**

PRO

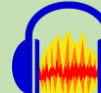## Information Technology (IT) – Music and Sound

Garageband
- Consider the audience and purpose of the music for a particular theme.
- Create phrases of beats / music into bars.
- These can be saved as **MP3s** which can then be added to your presentations in iMovie!

Audacity
- Podcasting. Consider the audience and purpose of your broadcast.
- Evaluate the effectiveness of
- Record. Edit. Upload!

Information Technology (IT) - Data

Spreadsheets – Excel
- Frequency tables, pictograms, bar graphs, line graphs – *Use the correct one!*
- Using the formulae– *Calculating your totals in Theme Park Maths or Dream Job Maths!*

Databases - 2Investigate
- Useful to track, compare, sort and search for information.
- Remember to enter your information accurately!
- Design suitable fields to sort your information.

2Investigate

Database Field