



Computing Progression of Learning Map



Associated Computing Vocab Progressed in BOLD BLUE

		Autumn		Spring	Summer	
		1 Computer Science	2 Digital Media	Online Safety (Safer Internet Week)	1 Technology around us	2 Data Handling
EYFS (Understanding the World, Development Matters 2021)	Nursery	<p>Explore technology</p> <p>Repeat an action with technology to trigger a specific outcome</p> <p>Follow simple instructions to control a digital device</p> <p>Possible Activities incorporating these objectives:</p> <p>Activity 1 - Explore toys that simulate control devices</p> <p>Activity 2 - Introduce sequence instructions</p> <p>VOCAB: Equipment Buttons Movement</p>	<p>Use technology to explore digital content</p> <p>Operate a digital device with support to fulfil a task</p> <p>Create simple digital content e.g. digital art</p> <p>Possible Activities incorporating these objectives:</p> <p>Activity 1 - Explore effects in art software</p> <p>Activity 2 - Take photographs</p> <p>Activity 3 - Create a simple animation</p> <p>VOCAB: Screen Mouse Images Keyboard Paint</p>	<p>Recognise the internet can be used to communicate with others in a variety of ways</p> <p>Identify ways information can be put on the internet</p> <p>Identify rules that help keep them safe and healthy in and beyond the home when using technology. Use the internet with adult support and know what not to share with others online</p> <p>Links and activities to support Digital Safety: Digiduck Smartie the penguin Jessie & Friends Think U Know Home Pack 1&2 Think U Know Reward Chart Hectors World Digital Citizenship Kids Activities and films</p> <p>VOCAB: Choices Internet Website</p>	<p>Recognise and use different digital devices</p> <p>Understand that you can access content on a digital device</p> <p>Recognise the basic parts of a computer, e.g. mouse, screen, keyboard</p> <p>Recognise key parts of a keyboard, e.g. spacebar, numbers, letters</p> <p>Possible Activities incorporating these objectives: Activity 1: Explore parts of the computer</p>	<p>Able to sort objects into 1 or more categories</p> <p>Collect simple data on a topic e.g. likes/dislikes</p> <p>Possible Activities incorporating these objectives: Activity 1 - Sort, classify, group objects</p> <p>Activity 2 - Sort and sequence objects</p>
	Reception	<p>Input a short sequence of instructions to control a device</p> <p>Can order the steps of a known task</p> <p>Recognise the success or failure of an action</p> <p>Try alternative approaches to achieve a goal</p> <p>Understand that we control computers</p>	<p>Choose a digital device from a selection to complete a specific task</p> <p>Choose media to convey information, e.g. image for a poster</p> <p>Access and playback captured digital content</p>	<p>Describe how some people can be unkind and what makes someone a good friend</p> <p>Identify how devices connected to the internet can be used to find things out and give examples eg. voice activated Smart Speakers</p> <p>Know that information can be private or public and they can identify examples of personal information e.g. name, age</p>	<p>Use a simple password when logging on, where relevant</p> <p>Add text to a document using the keyboard (where appropriate)</p> <p>Use a mouse, touchscreen or appropriate access device</p>	<p>Able to answer basic questions about information displayed in images e.g. more or less</p> <p>Able to present simple data using images e.g. number of animals, shapes</p>

Year 1

Recognise patterns in groups of objects

Possible Activities incorporating these objectives:
 Activity 3 - Control objects on a touchscreen
 Activity 4 - Explore a website
 Activity 5 - Control a programmable toy

VOCAB:
Equipment
Buttons
Movement

Possible Activities incorporating these objectives:
Activity 1 - Create an avatar using apps
Activity 2 - Create an animation

VOCAB:
Screen
Mouse
Images
Keyboard
Paint

Use the internet to find a picture

Recognise inappropriate content and know to tell an appropriate trusted adult

They can name their work so others know it belongs to them

Links and activities to support Digital Safety:
 Digiduck
 Smartie the penguin
 Jessie & Friends
 Think U Know Home Pack 1&2
 Think U Know Reward Chart
 Hectors World
 Digital Citizenship
 Kids Activities and films

VOCAB:
Choices
Internet
Website

to target and select options on screen

Understand you can access the same content on different devices

Understand that information and media can be stored on a digital device, e.g. they ask to view a photo that has been taken on a tablet

Possible Activities incorporating these objectives:
Activity 1 - Tech around us
Activity 1 - Computers around us

Possible Activities incorporating these objectives:
Activity 1 - Produce Pictograms

Know that people interact with computers

Understand that computers need precise instructions

Understand that programs run by following precise instructions

Can run check and change programs

Understand what an algorithm is and is able to represent algorithms using symbols

Begins to develop care and precision to avoid errors with algorithms

Know that computers have no intelligence and that computers can do nothing unless a program is run

Know that all software executed on digital devices is programmed

Know that digital content can be represented in many forms

Explore the keyboard to write and add text on a computer and remove text by using backspace

Make changes to text and explain why you chose the tools you use

Compare writing on a computer and writing on paper and can say which you prefer

Know how to create digital content using the tools within a simple art or writing package

Begin to select basic options to change the appearance of digital content

Identify rules to keep safe and healthy when using technology in and beyond the home

Give examples of rules to keep safe and healthy when using technology in and beyond the home

Discuss what are the benefits from the rules to keep safe and healthy when using technology in and beyond the home

Recognise that there may be people who could make them feel sad or upset and give examples of when and how to speak to an adult they trust

Use the internet with adult support to communicate with others they know and explain why it is important to be kind and considerate to others

Ask a trusted adult about what should be put online as they recognise that information can stay online and be copied

Name a range of digital devices in the classroom

Understand that you can share digital content

Explain what the basic parts of a computer are used for, e.g. mouse, screen, keyboard

Recognise and use a range of output devices e.g. printer, speakers, monitor, screen

Use a simple password when logging on, where relevant

Recognise and use a range of input devices

Recognise that digital content can be represented in many forms e.g. charts, tables, or branching databases; and why we use them

Distinguish between different forms of data representation and can explain different ways that they can communicate information

Knows that users can develop their own programs and demonstrate this using programmable robots

Possible Activities incorporating these objectives:

Activity 1 – Algorithms (Robots)

Activity 2 – Beebot/BlueBot - Algorithms (Tinkering / Debugging)

Activity 3 - Writing Algorithms (Tinkering / Debugging)

Activity 4 - BlueBot - Algorithms (Explore / Challenge)

Activity 5 - Algorithms (Move Sprites) (Tinkering / Debugging)

Activity 6 - Algorithms (Block Coding)

VOCAB:
Instructions
Buttons
Robots
Patterns
Program

Know how to capture media (digital images, video or audio) using digital devices

Combine media with support to present information e.g. text and images

Access and edit captured digital content

Possible Activities incorporating these objectives:

Activity 1 - Make a simple cell animation

Activity 2 – Capture image, video, audio

Activity 3 – Explore a digital photograph

VOCAB:
Videos
Camera stills
Sounds
Image bank
Word bank
Space bar

Use the internet to find things out

Recognise personal information and explain why they should ask a trusted adult before putting information online

Know that the work they create belongs to them

Name their work so others know it belongs to them

Links and activities to support Digital Safety:

Digiduck
Smartie the penguin
Jessie & Friends
Think U Know Home Pack 1&2
Think U Know Reward Chart
Hectors World
Digital Citizenship
Kids Activities and films

VOCAB:
Rules
Online
Private information
Email

e.g mouse, keyboard, microphone, touchscreen

Understand that you can find information on a website

Understand that you can use a search engine to find information using keyword searches

Know where to save and open work

Recognise that a range of devices contain computers e.g. washing machine, car, laptop

Understand that all devices, program, websites, apps and games are designed and manufactured by real people to fulfil specific tasks

Possible Activities incorporating these objectives:

Activity 1: Investigate the WWW to find out about toys

Use specific software to create simple charts

Collect data on a topic (eye colour, pets, etc)

Create a branching database using pre-prepared images and questions

Identify an object using a branching database

Identify an object by asking yes/no questions

Explain information shown in a simple chart, pictogram or database

Possible Activities incorporating these objectives:

Activity 1: Collect weather data

Year 2

Understand that algorithms are implemented on digital devices as programs

Begins to use arithmetic operators, if statements and loops within programs

Can use logical reasoning to predict outcomes and the behaviour of programs

Begins to use simple algorithms using loops, (repeats), and selection (if statements)

Find and correct simple errors ie debugging, in algorithms

Know how to edit digital content to improve it

Apply edits to digital content to achieve a particular effect

Identify what makes good or bad digital content, e.g. poor sound recordings, unfocussed images

Select media with support to present information on a topic e.g. images, video, sound

Identify rules to keep safe and healthy when using technology in and beyond the home and suggest devices connected to the internet in their homes

Recognise how to use technology responsibly

Describe how those rules help them stay safe

Give examples of issues online that might make them feel sad, worried, uncomfortable or frightened and can give examples of how they might get help

Identify examples of computers and describe some uses of computers

Explain the purpose of information technology in the home

Identify information technology beyond school giving examples

Explain how information technology benefits us - demonstrate how

Recognise different types of data e.g. text, number

Appreciate that programs can work with different types of data

Recognise that data can be structured in

Find and correct simple errors ie debugging, in programs

Know that computers have no intelligence and that computers can do nothing unless a program is run

Know how programs specify the function of a general purpose computer

Possible Activities incorporating these objectives:

Activity 1 – Create Crazy Characters

Activity 2 – Write algorithms in Daisy the Dinosaur app

Activity 3 – Debug algorithms

Activity 4 – Program a Beebot/Bluebot to form numerals

Activity 5 - Program a Beebot/Bluebot

Activity 6 - Use LOGO to draw lines and shapes

VOCAB:

Forward

Backward

Right-angle turn

Algorithm

Sequence

Debug

Predict

Plan out digital content e.g. use a storyboard to sequence an animation

Possible Activities incorporating these objectives:

Activity 1 – Make a simple stop frame animation

Activity 2 – Make a short video

Activity 3– Use AR to bring images to life

Activity 4 – Create and improve a musical loop

VOCAB:

Paint effects

Templates

Animation

Documents

Index finger typing

Enter/return

Caps lock

Backspace

Give examples of how they can use technology to communicate with others

Explain how information put online about them or by them can last a long time and be seen by others

Give examples of how bullying online might look; how someone might feel and where someone can get help

Use keywords in search engines and explain why some information online may not be true

Describe and explain rules for keeping information private such as passwords

Recognise that content online may belong to other people

Links and activities to support Digital Safety:

Digiduck

Smartie the penguin

Jessie & Friends

Think U Know Home Pack 1&2

Think U Know Reward Chart

Hectors World

Digital Citizenship

Kids Activities and films

VOCAB:

Appropriate/inappropriate sites

Cyber-bullying

Digital footprint

Keyword searching

information technology is used in a shop and explain how information technology helps people

List different uses of information technology recognising how to use information technology responsibly

Identify the choices that are made when using information technology

Possible Activities incorporating these objectives:

Activity 1: Investigate the question – What is the Internet?

tables to make it useful

Present data in a pictogram independently

Independently plan out and create a branching database

Recognise an error in a branching database

Evaluate a given branching database and suggest improvements

Understand that questions are important when collecting data

Possible Activities incorporating these objectives:

Activity 1: Use a branching database to sort shapes or animals

Design solutions (algorithms) that use repetition and two way selection i.e. if, then and else

Create programs that implement algorithms to achieve given goals

Use diagrams to express solutions

Declare and assign variables

Know how to edit digital content to improve it with clear purpose

Edit digital content to improve it according to feedback

Evaluate their own and existing digital content

Select media independently to present information on a

Explain identity and how they can represent themselves in different ways online such as using an avatar

Describe how people can get together online and explain some risks of communicating with others online which is different from knowing someone in real life

Know who to ask if unsure about uploading content about themselves or others and can search for themselves online

Explain that digital devices accept inputs and produce outputs

Identify input and output devices

Recognise and explain how digital devices can be used for different activities

Appreciate that different programs work with different types of data e.g. text, number

Able to explore a record database to find out information.

Use logical reasoning to predict outputs, showing awareness of inputs

Use post tested loops e.g. 'until', and a sequence of selection statements in programs including an if, then and else statement

Know that users can write their own programs

Use a range of input and output devices

Know that a range of digital devices can be considered a computer

Possible Activities incorporating these objectives:
 Activity 1 – Understand Algorithms
 Activity 2 – Problem solving
 Activity 3 – Create and debug Algorithms in Angry Birds
 Activity 4 – Introduction to Scratch Jr
 Activity 5 – Create a maze in Scratch Jr
 Activity 6 – Create presentations using Scratch Jr

VOCAB:
 Sequence instructions
 Sequence debugging
 Test + improve
 Logo commands
 Sequence programming

topic e.g. text, images, video, sound

Design and create digital content for a specific purpose

Possible Activities incorporating these objectives:
 Activity 1 – Explore Musical features
 Activity 2 – Edit a Scratch Jr video
 Activity 3 - Create an animation using Scratch Jr
 Activity 4 - Create a self-portrait
 Activity 5 – Use VR Headsets and evaluate existing digital media

VOCAB:
 Multimedia
 Presentations
 Alignment
 Brush size
 Repeats
 Reflections
 Green screening
 Amend
 Copy
 Paste

Know what cyberbullying is and can describe rules about how to behave online

Use key phrases in search engines with awareness of belief, fact and opinion as well as explain how the internet is used to buy and sell things

Explain why too much time using technology can have a negative impact such as spending time engaged with games and videos

Explain why they should only share information with people they know and trust and if unsure to ask a trusted adult.

Understand why passwords are important and should be kept private

Explain why they should not copy someone else's work from the internet without permission

Links and activities to support Digital Safety:
 Jessie & Friends
 Think U Know Home Pack 3&4
 Think U Know Reward Chart
 Game On
 Animal Magic Lee and Kim
 Smart Rules
 Smart Crew
 Digital Citizenship
 Kids Activities and films
 Search Engine

VOCAB:
 E-safety rules
 Secure passwords
 Report abuse button
 Gaming
 Blogs

Suggest differences between using digital devices and non-digital tools

Explain how a computer network can be used to share information using multiple connections

Explore how digital devices can be connected and explain the role of a switch, server, and wireless access point in a network

Identify the physical components of a network and describe the benefits of a network

Possible Activities incorporating these objectives:
 Activity 1: Use a search end filter the results
 Activity 2: Investigate Copyright and IPR (Intellectual Property Rights)

Understand the benefits of using a computer to create charts and databases

Understand that search engines store information in databases

Begin to present data in a number of ways to convey information

Enter data into a database package and test

Possible Activities incorporating these objectives:
 Activity 1: Use a branching database to investigate and share information

Year 4

Show awareness of tasks best completed by humans or computers

Know the difference between if, if then and else statements

Know how to edit digital content to improve it with clear purpose with some consideration for the given audience

Explain how their online identity can be different to real life and describe the right decisions how they interact with others online

Describe strategies to be safe and have fun when using online social environments; giving examples of how to be respectful to others online

Describe the internet as a network of networks and demonstrate how information is shared across the internet

Aware of the difference between data and information

Appropriately use if, if then and else statements
Design solutions by decomposing a problem and create a sub-solution for each of these parts (decomposition)
Design, write and debug modular programs using procedures
Know that different solutions exist for the same problem
Know that procedure can be used to hide the detail with sub-solution (procedural abstraction)
Know that computers collect data from various input devices, including sensors and application software
Able to declare and assign variables

Possible Activities incorporating these objectives:

Activity 1 – If, Then, Else Conditionals

Activity 2 – Use if then else statements

Activity 3 – Spy kids problem solving

Activity 4 – Sequences, Conditions, Loops

Activity 5 – Write a simple program

Activity 6 - Design a game using Sketch Nation

VOCAB:

Type + edit logo commands

Sensors

Open-ended problems

Bugs in programs

Complex programming

Edit existing media to make new content with an awareness of copyright
Collaborate with peers using online tools e.g. blogs, Google Drive, Office 365
Collect, organise and present information effectively using a range of media
Use a range of tools to edit and enhance media for a particular effect

Possible Activities incorporating these objectives:

Activity 1 – Use Chrome Music Lab

Activity 2 – Make a Video Trailer

Activity 3 - Create a silhouette self-portrait

Activity 4 – Use 3D camera to create digital media in VR headsets

VOCAB:

Creating + modifying

Specific purpose

Photo modifying

Keyboard shortcuts

Bullet points

Spell check

Constructive feedback

Describe how others can find information about them online and explain ways that some information could be created, copied or shared by others
Identify some online media technologies such as image, video, text and chat where bullying might take place and the need to consider others feelings
Search for information within different technologies (social media, images, videos) and differentiate between opinions beliefs and facts and what makes something a fact.
Describe some methods the internet uses to encourage people to buy things such as pop ups, in app purchases, offers and that some people on line may be computer programmes pretending to be real people
Explain how using technology can distract them from other activities and identify ways to limit the amount of time using technology
Describe strategies for keeping personal information private and explain what a strong password is
Explain that others online can pretend to be them or their friends
Explain the need to consider who owns content on the internet and whether they have the right to use it

Links and activities to support Digital Safety:

Band Runner

Play Like Share

Films

Think U Know Home Pack 1&2

Think U Know Reward Chart

Game On

Smart Rules

Smart Crew

Digital Citizenship

Digital Passport

Kids Activities and films

Search Engine

VOCAB:

E-safety rules

Secure passwords

Report abuse button

Explain how the internet allows us to view the World Wide Web;
Outline how websites can be shared via the World Wide Web and where they are stored
Describe how content can be added and accessed on the World Wide Web
Explain how websites and their content are created by people
Explain why everything on the World Wide Web is not true and why you need to think carefully before sharing or reshaping content

Possible Activities

incorporating these objectives:

Activity 1: Investigate false news and how to spot it

Activity 2: Create QR codes to share analysis

Use the sort feature in a flat file to refine searches for information
Begin to use filters in a database to find out information
Able to perform single criteria searches for information
Design a questionnaire with support and collect a range of data on a theme
Draw conclusions from information stored in a database, table or chart

Possible Activities incorporating these objectives:

Activity 1: Collect data and record in a spreadsheet – create a graph

Know that iteration is the repetition of a process such as a loop

Know that programming bridges the gap between algorithmic solutions and computers

Know that different algorithms exist for the same problem

Has practical experience of a high level textual language, including using standard libraries when programming

Represent solutions using a structural notation

Use a range of operators and expressions e.g. Boolean, and applies them in the context of program control

Identify similarities and differences in situations and can use these to solve problems (pattern recognition)

Select the appropriate data types

Design solutions (algorithms) that use repetition and two way selection i.e. if, then, else

Know that all software executed on digital devices is programmed

Know that programs can work with different types of data e.g. text, number

Be able to use post tested loops e.g. until, and a sequence of selection statements in programs, including if, then, else

Create programs that implement algorithms to achieve given goals

Possible Activities incorporating these objectives:
Activity 1 – Repeated patterns/loops revision

Identify and use appropriate hardware and software to fulfil a specific task

Remix and edit a range of existing and their own media to create content

Understand the benefits of technology to collaborate with others

Be aware of a range of Internet services to aid collaboration e.g. email, VOIP Voice Over Internet Protocol – Skype, Hangouts, FaceTime), World Wide Web, and what they do

Recognise the audience when designing and creating digital content

Possible Activities incorporating these objectives:

Activity 1 – Design and create a podcast

Activity 2 – Make a video with Green Screen app

Activity 3 – create a stop frame animation using various shots and angles

Activity 4 – Design and make a wanted poster

Activity 5 – Use 3D camera to create digital media in VR headsets

Gaming Blogs

Explain how identity on line can be copied, modified or altered and demonstrate responsible choices for their online identity

Explain how they can collaborate positively with others online but that there are some people online who may want to do harm to them or their friends and this is not their fault.

Search for information about others online and describe ways that information can be used to make judgements about others

Recognise when someone is upset, hurt or angry online and describe ways for someone being bullied online to get help

Explain how to block abusive users and report online bullying on the apps and platforms they use including to helpline services such as Childline

Use different search technologies and evaluate digital content from search results with an understanding for data, information, fact, opinion, belief, true, false, valid, reliable and evidence.

Understand the difference between online mis-information and dis-information and explain what is meant by being sceptical

Explain what is meant by a hoax and why some online information may not be honest, accurate or legal

Describe ways technology can affect healthy sleep and describe some of the issues

Help stay safe by creating and using strong passwords

Explain why they should seek permission from a trusted adult before making payment for additional content such as in-app purchasing

Explain that many free apps and services may access and share their private information e.g. contacts,

Describe that a computer system features inputs, processes, and outputs and explain that computer systems communicate with other devices

Identify tasks that are managed by computer systems

Recognise that data is transferred over the internet and that networked digital devices have unique addresses

Recognise that connected digital devices can allow us to access shared files stored online and that the internet allows different media to be shared

What are the benefits of working together in a shared project online

Identify different ways of working together online and explain how the internet enables effective collaboration

Possible Activities incorporating these objectives:

Activity 1: Use search engines and different search strategies
Evaluate the results

Understand the difference between data and information

Know why sorting data in a flat file can improve searching for information

Use filters in a database to find out specific information

Present data in different ways to convey information

Design a questionnaire independently and collect a range of data on a theme

Analyse and interrogate data stored in a database, table or chart

Possible Activities incorporating these objectives:
Activity 1: Use dataloggers to investigate sound levels

Activity 2 – Apply computational skills

Activity 3 – Use directional commands to control a character

Activity 4 – Use functions or procedures in programming

Activity 5 – Write and use simple procedures

Activity 6 – Use “if,do,else” to create a program

VOCAB:
Explore procedures
Refine procedures
Variable
Hardware + software control
Change inputs
Different outputs
Articulate solutions
Commands

VOCAB:
Online sharing
Multimedia effects
Multimedia modification
Transitions
Hyperlinks
Editing tools
Refining
Online sharing

lies, images, videos, messages and geolocation with others

Assess and justify when it is acceptable to use the work of others

Links and activities to support Digital Safety:

- Band Runner
- Play Like Share
- Films
- Think U Know Home Pack 3&4
- Think U Know Reward Chart
- Game On
- Smart Rules
- Smart Crew
- Digital Citizenship
- Digital Passport
- Kids Activities and films
- Trust Me
- Caught in the web
- Search Engine

VOCAB:
Responsible online communication
Informed choices
Virus threats
Blogs
Messaging

Activity 2: Create QR codes to share analysis

Year 6

Create programs that implement algorithms to achieve given goals

Able to declare and assign variables

Able to use post tested loops e.g. until, and a sequence of selection statements in programs, including if, then, else

Knows the difference between and appropriately uses if, then and else statements

Identify and use appropriate hardware and software to fulfil a specific task

Remix and edit a range of existing and their own media to create content

Understand the benefits of technology to collaborate with others

Select, combine and use Internet services to fulfil a purpose

Evaluate their own content against their own success

Identify messages online about gender roles from the media and others and explain why it is important to reject inappropriate messages about gender online

Describe issues online that might make them or others feel sad, worried, uncomfortable or frightened and give examples of online and offline help

Explain how impulsive and rash communications online may cause problems and show understanding for the need to be responsible for the wellbeing of others

Explain how they are developing an online reputation influencing others opinions of them and how to build a positive online reputation

Use a search engine - complete a web search to find specific information, refine the search and compare results from different search engines

Describe how search engines select results and recognise the role of web crawlers in creating an index

Performs more complex searches for information e.g. uses Boolean and relational operators

Analyses and evaluates data and information, and recognises that poor quality data leads to unreliable results, and inaccurate conclusions

Use a variable and relational operators within a loop to govern termination

Designs writes and debugs modular programs using procedures

Designs solutions by decomposing a problem and creates a sub-solution for each of these parts (decomposition)

Knows that a procedure can be used to hide the detail with sub-solution (procedure abstraction)

Able to use criteria to evaluate the quality of solutions and can identify improvements making some refinements to the solution and future solutions

Able to design a computing system that uses sensors

Combine a variable with relational operators (<=>) to determine when a program changes e.g. if score >5, say "well done"

Predict what will happen in a program or algorithm (e.g. change of output) when the input changes (e.g. sensor, data or event)

Possible Activities incorporating these objectives:

Activity 1 – Move blocks with the use of loops and repeats

Activity 2 – use computational thinking to solve problems

Activity 3 – understand variables in programming

Activity 4 – use variables to program a game

Activity 5 – Voting app with variables using Scratch

Activity 6 - Shark Game with variables

criteria and make improvements accordingly

Possible Activities incorporating these objectives:

Activity 1 – Make a podcast

Activity 2 – Produce a group video

Activity 3 – Make nan animation via Scratch

Activity 4 - Design and create an animated GIF

Activity 5 – Use paint 360 to create and reshape digital media on the VR headsets

VOCAB:

Appropriate online tools

Audience

Atmosphere

Structure

Copyright

Information collection

HTML code

Storing

Describe how to evidence cyber bullying such as capturing content with screen grabs, recording URL's to enable them to report concerns in school and at home

Use search engines effectively and explain how search engines work as well as be discerning in evaluating digital content

Describe how online information can be opinion and explain how and why some people present information as facts

Define terms influence, manipulation and persuasion and how they might encounter these on line e.g advertising

Model ideas using prototypes and pattern pieces.

Know systems to regulate age related content such as PEGI ratings and use strategies to promote healthy, self-regulated use of technology e.g. night shift mode, regular breaks, correct posture, sleep diet and exercise.

Use different passwords for online services, manage those passwords and know what to do if the password is lost or stolen

Explain what app permissions are, use privacy settings and identify illegal strategies such as scams and phishing.

Use search tools to access online content that can be used by others and demonstrate how to reference content from others used from the internet

Link and activities to support Digital Safety:

Band Runner

Play Like Share

Films

Think U Know Home Pack 3&4

Think U Know Reward Chart

Game On

Smart Rules

Smart Crew

Digital Citizenship

Digital Passport

Kids Activities and films

Trust Me

Let's Fight it together

Caught in the web

Explain how search results are ranked and suggest some of the criteria that a search engine checks to decide on the order of results

Explain the different ways in which people communicate using technology

Compare different methods of communicating on the internet and decide when you should and should not share information

Possible Activities incorporating these objectives:

Activity 1: Investigate how the Internet works and how data moves

Investigate the origin of websites

Activity 2: Create QR codes to share analysis

Use filters in a database to find out specific information

Present data in an increasing number of ways to effectively convey information

Design a questionnaire independently and collect, present and analyse a range of data on a theme

Analyse and interrogate data stored in a database, table or chart

Possible Activities incorporating these objectives:

Activity 1: Use data loggers to investigate heart rate before and after activity

VOCAB:

Predicting outputs

Plan, program, test & review a program

Program writing

Control mimics + devices

Sensors

Measure input

Create variables

Link errors

Search Engine

VOCAB:

Responsible online communication

Informed choices

Virus threats

Blogs

Messaging