COMPUTING

Progression Map

COMPUTING PROGRESSION MAP

YEAR 1

- Recognise common uses of information technology in the home and school environment.

YEAR 2

- Recognise common uses of information technology beyond school.

YEAR 3

- Recognise familiar forms of input and output devices and how they are used.

YEAR 4

- Use other input devices such as cameras or sensors.

WHAT IS A COMPUTER?

Progression Map

Vocabulary

Input

Output

Process

Software

Hardware

Computer

Device

Digital

Binary

COMPUTING PROGRESSION MAP

YEAR 3

- Understand that computer networks enable the sharing of data and information.
- Understand that the internet is a large network of computers and that information can be shared between computers.

YEAR 4

- Understand what servers are and how they provide services to a network.

YEAR 5

- Begin to use internet services to share and transfer data to a third party.

YEAR 6

- Understand how computer networks enable computers to communicate and collaborate.
- Begin to use internet services within his/her own creations to share and transfer data to a third party.

NETWORKS

Progression Map

Vocabulary

Network

Topology

Sharing

Server

Device

COMPUTING PROGRESSION MAP

USING A COMPUTER

Progression Map

YEAR 1

- Use technology purposefully to create digital content.

YEAR 2

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Use technology purposefully to create digital content comparing the benefits of different programs.

YEAR 3

- With support select and use a variety of software to accomplish goals.

YEAR 4

- With support select and use a variety of software on a range of digital devices.
- With support select, use and combine a variety of software on a range of digital devices to accomplish given goals.

YEAR 5

- Independently select and use appropriate software for a task.
- Independently select, use and combine a variety of software to design and create content for a given audience.

YEAR 6

- Independently select, use and combine a variety of software to design and create content for a given audience, including collecting, analysing, evaluating and presenting data and information.
- Design and create a range of programs, systems and content for a given audience.
- Independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information.

Vocabulary

Hardware

Software

Application

COMPUTING PROGRESSION MAP

YEAR 1

- Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies.

YEAR 2

- Use technology safely and keep personal information private.

YEAR 3

- Use technology safely and respectfully, keeping personal information private.
- Use technology safely and recognise acceptable and unacceptable behaviour.

YEAR 4

- Use technology responsibly and understand that communication online may be seen by others.
- Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies.

YEAR 5

- Understand the need to only select age appropriate content.

YEAR 6

- Use technology respectfully and responsibly.
- Identify a range of ways to report concerns about content and contact in and out of school.

e-SAFETY

Progression Map

Vocabulary

Internet

Sharing

Searching

Personal Information

Privacy

Content

COMPUTING PROGRESSION MAP

NET SEARCHING

Progression Map

YEAR 3

- Use simple search technologies.
- Use simple search technologies and recognise that some sources are more reliable than others.

YEAR 4

- Understand how results are selected and ranked by search engines.

YEAR 5

- Use filters in search technologies effectively.
- Use filters in search technologies effectively and appreciates how results are selected and ranked.

YEAR 6

- Be discerning when evaluating digital content.
- Use filters in search technologies effectively and is discerning when evaluating digital content.

Vocabulary

Search engine

Internet

Results

Input

Evaluate / Discern

COMPUTING PROGRESSION MAP

CODING

Progression Map

YEAR 1

- Predict the behaviour of simple programs.
- Understand what algorithms are and how they are implemented on digital devices.

YEAR 2

- Use logical reasoning to predict the behaviour of simple programs.
- Create simple programs.
- Create and debug simple programs.
- Debug simple programs by using logical reasoning to predict the actions instructed by the code.
- Understand that programs execute by following precise and unambiguous instructions.

YEAR 3

- Design, write and debug programs that control or simulate virtual events.
- Use logical reasoning to explain how some simple algorithms work.

YEAR 4

- Decompose programs into smaller parts.
- Use logical reasoning to detect and correct errors in algorithms and programs.
- Select, use and combine a variety of software, systems and content that accomplish given goals.

YEAR 5

- Design, input and test an increasingly complex set of instructions to a program or device.
- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.
- Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated.
- Design write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user.
- Use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency.

YEAR 6

- Include use of sequences, selection and repetition with the hardware used to explore real world systems.
- Solves problems by decomposing them into smaller parts.
- Create programs which use variables.
- Use variables, sequence, selection, and repetition in programs.
- Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently.

Vocabulary

Algorithm

Sequence

Selection

Repetition

Variable

Instruction

Debug

Test

Prediction

Design