COMPUTING

Progression Map

COMPUTING PROGRESSION MAP

YEAR 1

- Begin to develop an understanding of algorithms
- Begin to understand that programs work by following instructions
- Create simple programs and begin to debug them
- Develop reasoning to predict the behaviour of simple programs

YEAR 2

- Understand what algorithms are.
- Understand how algorithms are implemented as programs on digital devices
- Understand that programs execute by following precise and unambiguous instructions
- Use logical reasoning to predict the behaviour of simple programs
- Create and debug simple programs

YEAR 6

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems
- Securely use logical reasoning to understand how algorithms work and detect and correct errors in algorithms and programs

Computer Science

YEAR 3

- Start to use reasoning to understand how algorithms work
- Detect errors in algorithms and programs
- Begin to solve problems by decomposing them into smaller parts
- Start to use sequence and selection in programs
- Begin to develop understanding of how to write and debug programs that accomplish specific goals, including controlling or simulating physical systems
- Begin to work with various forms of input/output

YEAR 5

- Write and debug programs that accomplish specific goals, including controlling or simulating physical systems
- Solve problems by decomposing them into smaller parts
- Use sequence, selection and repetition in programs
- Accurately manipulate variables and various forms of input/output
- Use logical reasoning to understand how algorithms work and detect and correct errors in algorithms and programs

YEAR 4

- Use logical reasoning to understand how algorithms work
- Detect and correct errors in algorithms and programs
- Start to use sequence, selection and repetition in programs
- Write and debug programs that accomplish specific goals, including controlling or simulating physical systems
- Begin to solve problems by decomposing them into smaller parts
- Work with variables and various forms of input/output

Vocabulary

Decomposing

Debug

Algorithms

Programs

Physical systems

COMPUTING PROGRESSION MAP

RECEPTION

- Select and use technology for a particular purpose

YEAR 1

- Use technology to create, store and retrieve digital content

YEAR 2

- Use technology purposefully to create, store, retrieve, organise and manipulate digital content

YEAR 3

- Use technology purposefully to create, store, retrieve, organise and manipulate digital content

YEAR 4

- Use a variety of software on digital devices

YEAR 5

- Express own ideas by selecting, using and combining a variety of software on digital devices to design and create programs

Digital literacy

Vocabulary

Technology

Software

Design

Create

Manipulate

Store

Retrieve

COMPUTING PROGRESSION MAP

Information technology

RECEPTION

- Recognise that a range of technology is used in places

YEAR 1

- Begin to recognise common uses of information technology beyond school

YEAR 3

- Show emerging understanding of computer networks including the internet and how they provide multiple services such as the World Wide Web
- Use some search technologies effectively and appreciate how results are selected
- Decide which questions to ask when using search engines

YEAR 4

- Understand computer networks including the internet and how they provide multiple services such as the World Wide Web
- Use search technologies effectively and appreciate how results are selected and ranked
- Evaluate the reliability of digital content
- Begin to ask and answer questions based on the reliability of digital content

YEAR 5

- Recognise the opportunities computer networks offer for communication and collaboration
- Use a wide range of search technologies effectively and appreciate how results are selected and ranked
- Be discerning in evaluating the reliability of digital content

YEAR 6

- Use the opportunities computer networks offer for communication and collaboration
- Appreciate how results are selected and ranked and use this to retrieve accurate content
- Be discerning in evaluating the reliability of digital content

Vocabulary

Reliability

Networks

Retrieve

Digital content

COMPUTING PROGRESSION MAP

Reception

- Recognise that a range of technology is used in places such as homes and schools

YEAR 1

- Develop an understanding of how to use technology safely.
- Know where to go for help/support when they have concerns about content/ contact on internet

YEAR 2

- Use technology safely and respectfully, keeping personal information private
- Identify where to go for help/support when concerned about content/ contact on internet/other online technologies

YEAR 3

- Use technology safely, respectfully and responsibly
- Recognise acceptable/ unacceptable behaviour and identify ways to report concerns about content and contact

YEAR 4

- Recognise acceptable/ unacceptable behaviour and identify ways to report concerns about content and contact

YEAR 5

- Confidently, competently and responsibly use information and communication technology

e-SAFETY

Progression Map

Vocabulary

Internet

Sharing

Searching

Personal Information

Privacy

Content