



PCLC

COMPUTER SCIENCE

7

- use logical reasoning to compare the utility of alternative algorithms for the same problem
- use a textual programming languages to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]
- design and develop modular programs that use procedures or functions
- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems

- understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns
- create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability

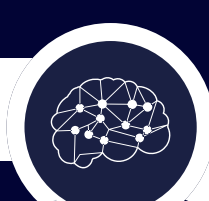
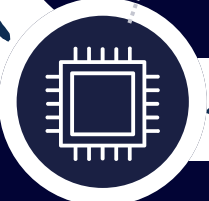


- use a textual programming languages to solve a variety of computational problems; make appropriate use of data structures [for example tables]

- understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers
- understand how data of various types (including text and pictures) can be represented and manipulated digitally, in the form of binary digits

8

- understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits
- understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems
- understand how instructions are stored and executed within a computer system



- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
- understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]

- undertake creative projects that involve selecting, using, and combining multiple applications, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users



- use logical reasoning to compare the utility of alternative algorithms for the same problem
- use a textual programming languages to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]
- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems



- create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability

9



- understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy



- Spiritual: Exploring personal values and beliefs; contemplating life's big questions
- Moral: Developing personal morality; making ethical decisions; understanding the impact of our actions on others.
- Social: Understanding social, economic, legal and political influences.
- Cultural: Appreciating diversity; understanding cultural impact; exploring cultural identity.



- use logical reasoning to compare the utility of alternative algorithms for the same problem
- use a textual programming languages to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]
- design and develop modular programs that use procedures or functions
- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems

