

COLLABORATION

CREATIVITY

PROBLEM SOLVING

ANALYSIS

9CSI COMPUTER SCIENCE & INFORMATION MANAGEMENT



OBJECTIVES



Problem solving - unpack problems to effectively generate solutions



Apply critical thinking - learn the processes to develop solutions, research, analyse and evaluate.



Use Creativity - explore the uses on Design Principles/ Elements for use in own creative Digital Media outcome.



Communicate - interact with other students to obtain stakeholder feedback.



Teamwork - work together as a team to collaborate on group design tasks.



Manage Information - create different Digital Media Types to integrate into Digital Media outcomes.



Be a Digital Citizen - learn legal, moral, ethical Digital Information Technology issues.

TECHNOLOGIES



Google
Use Gmail Mail, Docs and Drive. Effectively search for information and understand copyright and ethics.



HTML5
Use Notepad++ and neocities to write your own code to produce basic web pages.



PYTHON
Use Python programming language to create a coded outcome



JAVASCRIPT
Use JavaScript programming language to create a coded outcome



FLOWOL
Use Flowol flow charts to solve problems and activate sequential actions on an interactive



LEGO MINDSTORM ROBOTS
Design, build and program Lego



INFOGRAPHICS
Design and produce an infographic that reports on an aspect of cybercrime



HARDWARE
Dismantle and reassemble a PC while exploring the technical aspects of the PC's parts

ASSESSMENTS

1

Digital Citizenship
Students explore a range issues relating to best and safe practices when using the internet.

2

HTML
Create a simple web page using Notepad++ and understand a range of internet terminologies.

3

PYTHON
Analyse, explain and correct code segment and discuss the 3 primary aspects of coding.

4

JAVASCRIPT
Analyse, explain and correct code segment and discuss the 3 primary aspects of coding.

5

FLOWOL
Control the movements and visual effects of a showground mimic using a flow chart as the control mechanism.

6

LEGO
Explore and report on components and sensors then build a robot for a specific task.

7

INFOGRAPHICS
Use a graphical representation to report on an student chosen aspect of cybercrime.

8

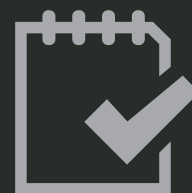
HARDWARE
Discuss aspects of computer hardware and the inter-relationship of parts and those parts data transfer rates.

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HOMWORK

Homework will be set when it is necessary and appropriate to support class work and it is imperative that it is completed. Students will make use of their Google drive account and the school E2learn site to access work at home. School email and Google documents will be explained early on in Term 1.



ASSESSMENTS

Topic assessments are graded and awarded as Excellence, Merit, Achieved, Not Achieved. Pre-assessment will be carried out to establish existing student skill levels. A portfolio of student's work will be maintained (Google Site). Self assessment and peer assessment will be encouraged.



FUTURE COURSES/CAREERS

Success on this course would allow entry to the DIT10 course. Due to the demand for the DIT10 course, students from Year 9CSI must have an Achieved or above in at least 75% of their Year 9 CSI assessments, to ensure space for students who did not have a chance to complete Year 9CSI.



SPECIFIC LEARNING OBJECTIVES

Students should be able to:

- Enter and compose text efficiently and effectively.
- Demonstrate design skills within a range of industry software applications.
- Demonstrate basic knowledge of computer science concepts.
- Use software applications to solve problems as identified in a technological brief.
- Demonstrate logical File Management and efficient use of Standard Operating Procedures.
- Become a powerful user of a range of software applications.



COURSE COSTS

1E4 - 7mm Quad Book 28 pages, pen, pencil, eraser, ruler and a set of headphones (ear plugs). Also credit on their Papercut account for printing assessments.

