Year 9 Information and Software Technology

Task No.:   3

Task Name: NCSS Challenge

Weighting: 20%

Outcomes: 5.4.1, 5.5.1, 5.5.3

The Task:

This task mainly involves participation in the NCSS Challenge programming in Python. You are required to complete all the problems in weeks 1-3 and 5. Year 9 camp is on week 4 of the challenge so completion of problems then is optional but highly recommended.

You will write about your experience in the context of past, current and emerging technologies. You will also write a reflection on the roles of systems analyst/designer and developer.

Submit the following:

1. **Prediction**   (*5 marks*)

   Analyse the effect of software design and development on the individual using your experience. Use examples from your experience to predict how programming could be used as beneficial for you or even wider society. It would help to do some research on current and emerging technology, i.e. combine your ideas with current and emerging technology. (*max: 300 words*)

2. **Reflection on being a developer**   (*5 marks*)

   Define the roles of systems analyst/designer and developer. Discuss the challenges of each role and how you overcame these. Use specific examples from your own NCSS experience. (*max: 300 words*)

SUBMISSION:

All documents must be submitted through the Virtual Classroom, under My Assignments.

Marking Criteria:

NCSS Challenge		
Student Outcomes:	**Student Mark**	**Out of**
5.4.1: analyses the effects of past, current and emerging information and software technologies on the individual and society		
Prediction		5
5.5.1: applies collaborative work practices to complete tasks		
NCSS Challenge participation		5
NCSS Challenge engagement (teacher observation)		5
5.5.3: Describes and compares key roles and responsibilities of people in the field of information and software technology		
Reflection		5
TOTALS	**0**	**20**

Board of Studies Keywords:

Analyse	Identify components and the relationship between them; draw out and relate implications
Define	State meaning and identify essential qualities
Discuss	Identify issues and provide points for and/or against

Performance Criteria:

1. **NCSS Challenge**

   a. Participation (5)

5	Completes 85%-100% of the problems
4	Completes 70% to <85% of the problems
3	Completes 50% to <70% of the problems
2	Completes 35% to <50% of the problems
1	Completes <35% of the problems

   b. Engagement (5)

Marks		Components
5	Excellent	• Helping others
4	Very good	• Resourcefulness to seek/find help
3	Good	• Good thinking, especially algorithms
2	Satisfactory	• Persistence
1	Elementary	• Attempt to enjoy the challenge

2. **Written work**

   Written work on prediction and reflection will use the following scale/rubric:

Marks	Components
5 - Extensive 4 - Thorough 3 - Sound 2 - Basic 1 - Elementary	**Content knowledge and contextual application** • Quality of information – accuracy, completeness, breadth and depth • Relevant examples drawn from experience **Communication of ideas** • Use of IST terminology • Organisation/Paragraph construction • Meets word count limit of 300 words • Grammar and spelling