Stuart Bathurst Catholic High School

Computer Science, IT, Business and Digital Media Department

Long-term sequencing **Year 9 KS3 IT**

CURRICULUM INTENT: To develop an in-depth knowledge of procedural computer languages and algorithms; ; to understand how technology relates to cultural and spiritual learning; to further develop and extend key computing topics such as cybersecurity, data representation and hardware leading towards a high level of knowledge that will be required for GCSE Computer Science; to continue to develop student awareness of the impact of IT on society; to replicate the development of a computer system; and to take part in well-planned and sequenced lessons to support all learners' progress to meet the KS3 National Curriculum.

HALF TERM 1: PYTHON

STUDENTS MUST KNOW HOW TO:

- create algorithms and simple Python programs.
- create Python programs combining integers and strings
- use IF statements in their programming.
- use loops in their programming.
- create and sort lists in Python.

HOW THIS WILL BE ASSESSED:

Baseline Test
Assessment in LRW1 (HT2)
Work (and homework) received and assessed electronically
Low stakes quizzes

HALF TERM 2: COMP SYS / INTERACTIVE MEDIA

STUDENTS MUST KNOW:

- Understanding the hardware and software principles within a computer system.
- Identifying some of the key points in computer history.
- Identify the hardware associated with a computer system. Identify the hardware found in a computer.
- Explain the technology found inside a computer.
- Create an interactive media application to show your knowledge of these topics

HOW THIS WILL BE ASSESSED:

Assessment in LRW2 (HT3)
Work (and homework) received and assessed electronically
Low stakes quizzes

HALF TERM 3: CYBERSECURITY

STUDENTS MUST KNOW:

- Data and privacy
- Social engineering and online threats
- Hacking
- Malware threats
- Defending against cyberthreats
- Practical task

HOW THIS WILL BE ASSESSED:

Assessment in LRW3 (HT4)
Work (and homework) received and assessed electronically
Low stakes quizzes

HALF TERM 4: DATA REPRESENTATION

STUDENTS MUST KNOW:

- Binary
- Hexadecimal
- Character Sets
- Images
- Sound
- Compression

HOW THIS WILL BE ASSESSED:

Assessment in LRW3 (HT4)
Work (and homework) received and assessed electronically
Low stakes quizzes

HALF TERM 5: WEB AND APPLICATION DESIGN (1)

STUDENTS MUST KNOW:

- Web site design
- Analysis and page layout
- Introduction to HTML
- Creating basic web pages
- Applying CSS
- Hyperlinks

HOW THIS WILL BE ASSESSED:

Assessment in LRW4 (HT5)
Work (and homework) received and assessed electronically
Low stakes quizzes

HALF TERM 6: WEB AND APPLICATION DESIGN (2)

STUDENTS MUST KNOW:

- Introduction to DreamWeaver
- Creating a basic web site
- Use of interactive features
- Images, sound and video
- Using all of the tools learnt in the website
- Evaluation

HOW THIS WILL BE ASSESSED:

Assessment at end of term
Work (and homework) received and assessed electronically
Low stakes quizzes

Home learning will consist of a combination of: Worksheets (written and online), SENECA, Key word learning from Knowledge Organisers