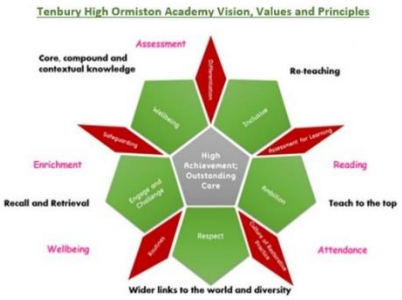
TENBURY HIGH
ORMISTON ACADEMY



Curriculum Overview for Computer Science
Year 11

Half Term 3
Algorithms

Substantive Knowledge:

- Understand how a computer runs code
- Understand what is meant by algorithmic thinking
- Understand what is meant by decomposition
- Understand what is meant by abstraction
- Understand how to identify outputs
- Understand how to identify inputs
- Understand how to identify the processes required
- Understand how to identify repeatable processes
- Understand the purpose of a structure diagram
- To be able to understand pseudocode
- Understand what a flow chart is used for
- Understand what the flow chart symbols mean
- Understanding trace tables to check variables through a program

Disciplinary Knowledge:

- To be able to break a problem down using decomposition and abstraction
- To be able to take a problem and produce step-by step instructions
- Be able to produce a structure diagram
- To be able to write a pseudocode solution
- To be able to produce a flow chart to solve a problem
- Be able to complete a trace table when running through a program

Model reading
Reading out loud
Skim and Scan of source information
Decoding terms
Etymology of key terms

Computational thinking
Sequence
Decomposition
Abstraction
Algorithmic thinking
Input
Output
Process
Repeatable Process
Structure diagram
Pseudocode
Flow chart
Terminal
Process
Question
Decision
Input
Output
Sub program
Trace Tables

Formative assessment
Knowledge checks
Smart Revise
Practice questions
Summative assessment
End of unit assessment

Practice questions
Revision tasks
Research tasks