



Computing- Curriculum Overview

Year 7

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|--------------------------|--|------------------------------|----------------------------------|---|--|------------------------------|
| Topics: | 1. Collaborating inline respectfully - | 2. Networks: | 3. Gaining support for a cause - | 4. Programming essentials in Scratch – part I | 5. Programming essentials in Scratch – part II | 6. Spreadsheets: |
| Assessment & End Points: | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms |

Year 8

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|--------------------------|------------------------------|------------------------------|------------------------------|------------------------------------|---------------------------------------|----------|
| Topics: | 1. Developing for the web | 2. Understanding Computers | 3. Design Vector Graphics | 04. Fundamentals of Cyber Security | 5. Introduction to Python Programming | |
| Assessment & End Points: | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | |

Year 9

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|--------------------------|---|------------------------------|------------------------------|---|------------------------------|---------------------------------|
| Topics: | 1. Python programming with sequences of data – Inc; Python Programming Projects | | 2. Data Science - | 3. Representations - going audio-visual - | 4. Cyber security - | 5 iDEA Digital Enterprise Award |
| Assessment & End Points: | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms | STAR assessment via MS forms |

Year 10

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|--------------------------|--|---|---|--|---|----------------------------------|
| Topics: | Unit 1 Systems Architecture | Unit 2 Data Representation | Unit 3 Networks connections, protocols | Unit 4 Network-security-and-systems-software. | Unit-5-Impacts-of-digital-technology | Unit 6 Algorithms. |
| Assessment & End Points: | Unit 1 Systems Architecture – End of Topic Test 50 marks | Unit 2 Data Representation - End of Topic Test 50 marks | Unit 3 Networks connections, protocols - End of Topic Test 50 marks | Unit 4 Network-security-and-systems-software. - End of Topic Test 50 marks | Unit-5-Impacts-of-digital-technology - End of Topic Test 50 marks | Paper 1 Mock Exam 90min 80 marks |

Year 11

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|--------------------------|--|---|--|--|----------------------|--------------|
| Topics: | Unit 6 Algorithms. | Mock Exam Revision and Unit 7 Programming. | Unit 7 Programming. | Unit 8 Logic and Languages. | Paper 1 & 2 Revision | Summer Exams |
| Assessment & End Points: | Unit 6 Algorithms.- – End of Topic Test 50 marks | Mock Exam _ paper full 90 min 80 marks Paper 2 ½ 60 min 40 marks | Unit 7 Programming. - End of Topic Test 50 marks | Unit 8 Logic and Languages. - End of Topic Test 50 marks | Paper 1 & 2 Revision | Summer Exams |



Computing- Curriculum Overview

Year 12

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|--------------------------|---|---|---|--|---|--|
| Topics: | <p>Comp 1 1.1 The characteristics of contemporary processors, input, output and storage devices 1.1.1 Structure and function of the processor 1.1.2 Types of processor 1.1.3 Input, output and storage</p> <p>Comp 2 1.4 Data types, data structures and algorithms 1.4.1 Data Types</p> | <p>Comp 1 1.2 Software and software development 1.2.1 Systems Software - 8 lessons</p> <p>Comp 2 2.2 Problem solving and programming 2.2.1 Programming techniques</p> | <p>Comp 1 1.2 Software and software development 1.2.2 Applications Generation 1.5 Legal, moral, cultural and ethical issues</p> <p>Comp 2 1.4 Data types, data structures and algorithms 1.4.2 Data Structures</p> | <p>Comp 1 1.2 Software and software development 1.2.3 Software Development 1.3 Exchanging data 1.3.1 Compression, Encryption and Hashing. 1.2.4 Types of Programming Language</p> <p>Comp 2 2.2 Problem solving and programming 2.2.2 Computational methods</p> | <p>Comp 1 1.3 Exchanging data 1.3.3 Networks</p> <p>Comp 2 2.1 Elements of computational thinking 2.1.4 Thinking procedurally 2.1.5 Thinking concurrently 2.3 Algorithms ½</p> <p>NEA - Preparation 1 hour a week -</p> | <p>Comp 1 1.3 Exchanging data 1.3.4 Web Technologies</p> <p>Comp 2 2.3 Algorithms 2/2 NEA - Analysis Section - 1 hour a week -</p> |
| Assessment & End Points: | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>Abridged Paper 1 & 2 Mock Exam</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>UCAS Exam – Paper 1 & Paper 2</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> |



Computing- Curriculum Overview

Year 13

| Half Term: | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 & 2 |
|--------------------------|--|--|--|---|---|
| Topics: | <p>Comp 1 1.5 Legal, moral, cultural and ethical issues</p> <p>1.5.1 Computing related legislation</p> <p>Comp 2 1.4 Data types, data structures and algorithms</p> <p>1.4.3 Boolean Algebra</p> <p>NEA Design Section 1 hr</p> | <p>Comp 1 1.5 Legal, moral, cultural and ethical issues</p> <p>1.5.2 Moral and ethical Issues</p> <p>NEA - 3.3 Developing the solution (25 marks)</p> <p>Comp 2 2.2 Problem solving and programming</p> <p>2.2.1 Programming techniques - B</p> <p>1.3 Exchanging data 1.3.2 Database</p> | <p>Comp 1 1.3.3 Networks</p> <p>Content of non-exam assessment Programming project</p> <p>3.3 Developing the solution (25 marks)</p> <p>3.4 Evaluation (20 marks)</p> <p>Comp 2 2.3 Algorithms</p> <p>(b) The suitability of different algorithms for a given task and data set, in terms of execution time and space. (c) Measures and methods to determine the efficiency of different algorithms, Big O notation (constant, linear, polynomial, exponential and logarithmic complexity)</p> | <p>Comp 1 Content of non-exam assessment Programming project</p> <p>3.3 Developing the solution (25 marks)</p> <p>3.4 Evaluation (20 marks)</p> <p>Comp 2 MS forms PLC based on specification to aid in teacher and student direction of revision.</p> <p>Review topics.</p> <p>Crossover papers.</p> <p>Also teach exam technique and do an exam paper walkthrough for Paper 1 and Paper 2</p> <p>Exam prep including problem solving and mini papers.</p> <p>Make use of Seneca Learning and GCSEPod platforms to aid directed revision</p> | <p>Comp 1 & Comp 2 MS forms PLC based on specification to aid in teacher and student direction of revision.</p> <p>Review topics.</p> <p>Crossover papers.</p> <p>Also teach exam technique and do an exam paper walkthrough for Paper 1 and Paper 2</p> <p>Exam prep including problem solving and mini papers.</p> <p>Make use of Seneca Learning and GCSEPod platforms to aid directed revision</p> |
| Assessment & End Points: | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments Spring Mock Paper 1 & 2 NEA DEADLINE</p> | <p>Regular knowledge checks at key points in the topics via MS Forms</p> <p>End of Topic Assessments</p> | SUMMER EXAMS |