Computing
Year 7

TERM 1	TERM 2	TERM 3
Introduction, Safety matters, IT definitions Input, output & storage devices **Unit 1 inside a computer** Graphics Word Processing **Unit 3 Drawing and manipulating shapes using Scratch** **Programming in Scratch: creating an animation -** dancing routine with multiple sprites, music and changing background lighting,	**Programming in Scratch:** **Unit 12 Programming a quiz,** **Unit 11 Programming a calculator** **Slide presentations for adult audience** **Spreadsheets & graphs** **Unit 5 The foundations of computing**	The foundations of computing con t'd Spreadsheets **Unit 10 Representing images** Revision Revision for end of year examination Desk Top Publishing

How we support learning:

- Written and verbal feedback on all assessments including targets for improvement
- Providing more detailed written guidance for lower ability students
- Offering individual teacher support in the classroom as required
- Provide personalised support outside the classroom as necessary
- Higher ability students are provided with extension tasks, which enable them to produce work of a much higher standard and acquire more in-depth knowledge of topics studied

How parents can support learning:

- Provide access to personal computer at home with appropriate software from MS Office 2013 Professional, Scratch, Paint and Photoshop if feasible
- Encourage computer use at home
- Support homework activities for other subjects using computer

Computing
Year 8

TERM 1	TERM 2	TERM 3
Desk Top Publishing Programming in Scratch **B2 Unit 3 Binary numbers** Converting Binary to Decimal and vice versa, bitmaps Addition and subtraction of binary numbers Write program to convert decimal numbers to binary	**B3 Unit 7 Digital circuits, Boolean Logic, Logic Gates** **B3 Unit 1 Cracking the code** **B3 Unit 2 Representing sounds** **B3 Unit 3 Creating Databases** Interrogating Databases using Boolean expressions DB Form design DB Report design **B2 Unit 5 Programming in Python** **B2 Unit 8 Artificial Intelligence**	**B2 Unit 8** Artificial Intelligence cont. **B2 Unit 7 Sorting methods** **B3 Unit 4 Searching** **Implementing a linear search and a binary search using Python** **B3 Unit 9 Creating an app to solve a problem** Revision for end of year examination **Unit 6 How the Web works** **Unit 7 Web page creation using HTML**

How we support learning:

- Written and verbal feedback on all assessments including targets for improvement
- Providing more detailed written guidance for lower ability students
- Offering individual teacher support in the classroom as required
- Provide personalised support outside the classroom as necessary
- Higher ability students are provided with extension tasks, which enable them to produce work of a higher standard and acquire more in-depth knowledge of topics studied

How parents can support learning:

- Provide access to personal computer at home with appropriate software
- Encourage computer use at home
- Support homework activities for other subjects using computer

Computing
Year 9
Computer Science GCSE (AQA)

YEAR 9: In year 9, we start the GCSE syllabus which is taught over 2 years with exams in Year 10

TERM 1	TERM 2	TERM 3
Theory: Unit 1 Fundamentals of algorithms Unit 2a Programming basics Unit 2b Programming techniques **Practical in Python:** Ch 1 Data types, operators, I-O Ch 2 Strings & numbers Ch 3 selection Ch 4 Iteration	**Theory:** Unit 3 Data Representation Unit 4 Computer Systems Unit 5 Fundamentals of computer networks **Practical in Python:** Ch 5 Lists and tuples Ch 6 Validating user input Ch 7 Searching and sorting Ch 8 Functions	**Theory:** Unit 6 Fundamentals of cyber security Unit 7 Impacts of digital technology **Practical in Python:** Ch 9 Reading and writing files Ch 10 DBs and SQL Ch 11 Python's SQLite module Ch 12 Introduction to Tkinter

How we support learning:

- Written and verbal feedback on all assessments including targets for improvement
- Providing more detailed written guidance for lower ability students
- Offering individual teacher support in the classroom as required
- Provide personalised support outside the classroom as necessary
- Higher ability students are provided with extension tasks, which enable them to produce work of a higher standard.

How parents can support learning:

- Provide access to personal computer at home with appropriate software (Python, which can be downloaded for free)
- Encourage computer use at home
- Support homework activities for other subjects using computer
- Support research and data collection through visiting relevant places of interest and other activities in preparation for Controlled assessment.

Computing – Cambridge Nationals in IT (OCR)

YEAR 9: In year 9, we start the GCSE syllabus which is taught over 3 years with a Theory exam in Year 10 and a Practical task in Year 11

First teaching in Sept 2017

TERM 1	TERM 2	TERM 3
Theory: **Practical:** Spreadsheets & graphs Advanced functions in Spreadsheets	**Theory:** Project development stages **Practical:** Databases Relational DBs	**Practical:** Integrated tasks Documenting your project development

How we support learning:

- Written and verbal feedback on all assessments including targets for improvement
- Providing more detailed written guidance for lower ability students
- Offering individual teacher support in the classroom as required
- Provide personalised support outside the classroom as necessary
- Higher ability students are provided with extension tasks, which enable them to produce work of a higher standard and acquire more in-depth knowledge of topics studied

How parents can support learning:

- Provide access to personal computer at home with appropriate software
- Encourage computer use at home
- Support homework activities for other subjects using computer
- Support research and data collection through visiting relevant places of interest and other activities in preparation for Controlled assessment.

Computing
Year 10
Computing – Business and Communication Systems GCSE (AQA)
YEAR 10:

Last teaching in Sept 2017

TERM 1	TERM 2	TERM 3
Theory: Unit 8 ICT and business communications Unit 9 The internet and e-commerce **Pract: Websites** Detailed Theory revision and overview Practice past Practical Exams	MOCK REVISION AND MOCK Practice papers and Revision	Practice papers and Revision

How we support learning:

- Each student gets feedback on their practical and theory exams work with personal goals.
- Tasks are tailored for each student's individual ability and speed of progress, with more able students getting ahead of others and thus completing more exams quicker and moving on to more challenging tasks.
- Students are encouraged to do extra practical and theory practice papers at home.
- Offering individual teacher support in the classroom as required
- Provide personalised support outside the classroom as necessary

How parents can support learning:

- Provide access to personal computer at home with appropriate software
- Encourage computer use at home
- Support homework activities for other subjects using computer
- Encourage effective management of a revision schedule

YEAR 10:
Computer Science GCSE (AQA)

First teaching in Sept 2018

TERM 1	TERM 2	TERM 3
Preparation for Controlled assessment **Controlled assessment** **Practical in Python:** Ch 13 Developing an app using Tkinter Ch 14 Program design Ch 15 testing and debugging	Finish**ing Controlled assessment** Detailed Theory revision and overview Practice exam papers	Practice Exam papers and Revision

How we support learning:

- Each student gets feedback on their practical and theory exams work with personal goals.
- Tasks are tailored for each student's individual ability and speed of progress, with more able students getting ahead of others and thus completing more exams quicker and moving on to more challenging tasks.
- Students are encouraged to do extra practical and theory practice papers at home.
- Offering individual teacher support in the classroom as required
- Provide personalised support outside the classroom as necessary

How parents can support learning:

- Provide access to personal computer at home with appropriate software
- Encourage computer use at home
- Support homework activities for other subjects using computer
- Encourage effective management of a revision schedule

YEAR 10:
Computing – Cambridge Nationals in IT (OCR)

First teaching in Sept 2018

YEAR 11:
Computing – Cambridge Nationals in IT (OCR)

First teaching in Sept 2019