

## West Sussex Alternative Provision College – Key Stage 3 Computing Framework – OCR R354 Entry Level Computing

| Autumn 1   | Autumn 2   | Spring 1   | Spring 2  | Summer 1   | Summer 2   |
|--|--|--|---|--|--|
| <b>Computer Hardware</b> <ul style="list-style-type: none"> <li>• Components of a computer                             <ul style="list-style-type: none"> <li>○ Motherboard</li> <li>○ Hard drive</li> <li>○ Memory</li> <li>○ PSU</li> <li>○ CPU</li> <li>○ Expansion slots</li> </ul> </li> <li>• Input and Output devices</li> <li>• Memory                             <ul style="list-style-type: none"> <li>○ RAM</li> <li>○ ROM</li> </ul> </li> <li>• Storage                             <ul style="list-style-type: none"> <li>○ Types</li> <li>○ sizes</li> </ul> </li> </ul> | <b>Computer Software</b> <ul style="list-style-type: none"> <li>• Operating Systems / Application Software / Utility Software</li> <li>• Data representation                             <ul style="list-style-type: none"> <li>○ Binary</li> <li>○ Logic Gates</li> </ul> </li> </ul> | <b>Moral, Legal, Cultural &amp; Environment</b> <ul style="list-style-type: none"> <li>• Digital Divide</li> <li>• Ads, cookies, big-brother, hacking</li> <li>• Computer Misuse act / Data Protection act / Copyrights act / Investigatory powers</li> </ul> <b>Programming</b> <ul style="list-style-type: none"> <li>• Design Cycle                             <ul style="list-style-type: none"> <li>○ Plan</li> <li>○ Do</li> <li>○ Check</li> <li>○ Review</li> </ul> </li> <li>• Sequencing, flowcharts and pseudocode</li> </ul> Online safety (incorporating Safer Internet Day) | <b>Programming</b> <ul style="list-style-type: none"> <li>• Scratch blocks palette</li> <li>• Sprites and backgrounds</li> <li>• Example scratch projects</li> <li>• Programming task                             <ul style="list-style-type: none"> <li>○ Planning</li> <li>○ Developing a solution</li> <li>○ Testing a solution</li> <li>○ Evaluating the success of the solution</li> </ul> </li> </ul> | <b>Extended learning projects (ICT)</b> <ul style="list-style-type: none"> <li>• Digital Graphics</li> <li>• 3D printing</li> <li>• Web design</li> <li>• Animation</li> <li>• Spreadsheets</li> <li>• Video</li> <li>• Audio</li> </ul> | <b>Extended learning projects (ICT)</b> <ul style="list-style-type: none"> <li>• Digital Graphics</li> <li>• 3D printing</li> <li>• Web design</li> <li>• Animation</li> <li>• Spreadsheets</li> <li>• Video</li> <li>• Audio</li> </ul> |

### OCR Entry Level Computing R354

#### Qualification breakdown

##### Computer Systems

CS1 Computer hardware | Computer software --- CS2 Computer memory and storage | Moral, legal, cultural and environmental concerns  
40 Marks | 2x30 minute exam | Total 1 hour Internally-assessed/ externally-moderated | 40% of total Entry Level Certificate

##### Computational thinking, algorithms and programming

CTAP1 Computational logic | Algorithms --- CTAP2 Programming techniques | Data representation  
40 Marks | 2x30 minute exam | Total 1 hour Internally-assessed/ externally-moderated | 40% of total Entry Level Certificate

##### Programming project

Planning a solution | Developing a solution | Testing a solution | Evaluating the success of the solution  
Programming Project 20 Marks Internally-assessed/ externally-moderated 20% of total Entry Level Certificate