

**KS5**

# Computer Science KS5 Assessment Map

Definition		Formative	Summative
		<p><b>Formative Assessment</b> is defined within our assessment policy as the frequent interactive assessment of what students currently know and understand to identify learning needs and adjust teaching appropriately.</p>	<p><b>Summative Assessments</b> are defined within our schemes of work to determine students' knowledge and understanding, to test the achievement of learning outcomes at the end of a specified period of study. They are assessments used to determine progression, indicate levels of achievement and predicted grades.</p>
Intent		At Crompton House School, formative assessment is integral to everyday teaching. It has the needs of our students at its core (to build up confidence and reduce anxiety) and it is embedded into teaching activities within each lesson. Via the use of formative assessment approaches, low stakes testing and retrieval practice techniques, our aim is to be best prepared to help our students to embed and use knowledge fluently to improve long term knowledge retention, to meet all students' needs through differentiation and adaptation of teaching, and to achieve a greater equity of student outcomes.	The aim of summative assessment at Crompton House School is to help us to know our students better, to assess their potential and improve performance. Our emphasis is on measuring and evaluating student outcome by finding out what students already know, understand and can do, and then using the outcomes from our summative assessments to influence how we teach, plan improvements and identify struggling students. Our aim is a hand in glove relationship that exists between learning objectives, assessments and teaching.
Timescales	Annual Implementation and Impact	<p>Formative assessment at Crompton House School supports students' progress towards learning of knowledge, concepts and skills by:</p> <ul style="list-style-type: none"> <li>consistently monitoring students' developing knowledge, understanding, and skill related to the topic at hand in order to know how to proceed with instruction in a way that maximizes the opportunity for student growth and success with key content</li> <li>revisiting topics/concepts/skills throughout each year; this is a core focus of our teaching and homework policies; in applying low stakes testing, students gain a firmer grasp of knowledge so they can recall and apply this much later on</li> <li>actively involving students in the process of teaching and learning</li> <li>building students' skills for peer- and self-assessment helping students to understand their own learning, and developing appropriate strategies for 'learning to learn'</li> </ul> <p>Our processes of effective formative assessment give teachers confidence in making judgement about the progress of their students. Our students, who are actively building their understanding of new concepts, who have developed a variety of strategies that enable them to place new ideas into a larger context, and who are learning to judge the quality of their own and their peer's work against well-defined learning goals and criteria, are also developing skills that are invaluable for learning throughout their lives. The little and often approach reinforces good habits and changes attitudes towards learning. Via frequent retrieval practice and low stakes testing, students will become more and more aware of what they are remembering.</p>	<p>If our students are not rigorously assessed, we would have no way to track progress throughout the year and no way to identify problems in time to correct them. We are therefore committed to the implementation of well thought out and carefully written summative assessments, which are directly linked to departmental schemes of work and PLCS (personalised learning checklists) in order to allow for an effective analysis of student strengths and weaknesses and evaluation of student outcomes.</p> <p>Our summative assessments will demonstrate results that reveal a degree of mastery and analysis of students' progress towards intended goals. The rigour of questions on each assessment, specifically aligning these to what is taught, will define the rigour of Crompton House, as a school, and in doing so, will determine what our students will achieve. We are focused on creating an environment in which each student is expected to learn at high levels and our summative assessments are written to require a rigorous demonstration of learning.</p>
		Key strategies of effective formative assessment on a <b>termly / half termly basis</b> within KS5 Computer Science include:	<b>Summative assessments</b> are directly linked to PLCs and used as a means to assess the security and depth of understanding a student has attained against the key course content we have defined for them. They

	<p><b>Interim Implementation</b> (Termly / Half Termly)</p>	<p><b><u>OCR A Level in Computer Science (H446)</u></b>  <b>Theory 80%</b>  H446/01 Computer Systems 2 hours and 30 minutes  H446/02 Algorithms and programming 2 hours and 30 minutes  <b>NEA 20%</b>  H446/03 Repository</p> <p><b>Year 12</b>  <b>H446/01 Computer Systems</b>  Unit 1 Components of a computer  Unit 2 Systems software  Unit 3 Software development  Unit 4 Exchanging data  Unit 5 Networks  <b>H446/02 Algorithms and programming</b>  Unit 11 Programming techniques  Unit 12 Algorithms  <b>NEA 20%</b>  NEA programming project</p> <p><b>Year 13</b>  <b>H446/01 Computer Systems</b>  Unit 6 Data types  Unit 8 Boolean algebra  Unit 9 Legal and cultural issues  <b>H446/02 Algorithms and programming</b>  Unit 10 Computational thinking  Unit 7 Data structures  <b>NEA 20%</b>  NEA programming project</p>	<p>are consistent with departmental schemes of work and PLCs. They test the learning outcomes accurately and fairly and are capable of effectively differentiating levels of student achievement where required. Summative assessments are teacher assessed and moderated.</p> <p><b>Year 12:</b>  Deadline for Summative Assessment 1: W/C 11<sup>th</sup> October  Deadline for Summative Assessment 2: W/C 13<sup>th</sup> December  Deadline for Summative Assessment 3: W/C 14<sup>th</sup> February  End of Year Exams W/C 2<sup>nd</sup> and 9<sup>th</sup> May</p> <p><b>Year 13:</b>  Mock 1: W/C 12<sup>th</sup> October  Deadline for Summative Assessment 2: W/C 14<sup>th</sup> December  Mock Exams: W/C 1<sup>st</sup> February  Deadline for Summative Assessment 4: W/C 29<sup>th</sup> March</p> <p><b>NEA Programming Project (Component 03 Repository) – 20% of overall grade.</b> NEA exam board submission date 15 May  <b>Submission of work:</b>  NEA project deadlines for check-up to ensure students are continually working on projects: -  January 2021  April 2021  July 2021  October 2022  November 2022</p>
	<p><b>Weekly Implementation</b></p>	<p>Key strategies of effective formative assessment in action in <b>hourly lessons</b> within KS4 Computer Science include:</p> <ul style="list-style-type: none"> <li>• Questioning to assess prior knowledge and understanding, challenge new learning, and promote links between topics and other subjects (usually mathematics).</li> <li>• Programming tasks completing programming challenges and exam question pseudocode</li> <li>• Peer and self- assessment of worksheets and homework sheets.</li> <li>• Teacher assessment of end of unit assessment and exam questions used in lessons</li> <li>• Doodle presentations for knowledge recap and quizzes for PLC</li> <li>• Revision guide for each topic area</li> <li>• Revision booklets for each topic area</li> <li>• PLC tracker to self-assess student's confidence are in each topic sub area</li> <li>• Teaching student how to interpret mark schemes</li> <li>• Model answers</li> </ul>	

- Learning objectives, keywords, new vocabulary, recaps at start of lessons, focused questioning, mini whiteboards, discussions, plenaries
- Regular homework to reinforce learning and promote independent learning

**NEA Programming Project (Component 03 Repository) – 20% of overall grade**

03 Assessment Objectives to be completed: -

2.2 Analysis (10 marks)

3.1 Design (15 marks)

3.2 Developing the coded solution

Iterative development of a coded solution (15 marks)

Testing to inform development (10 marks)

3.3 Evaluation

Testing to inform evaluation (5 marks)

Evaluation of solution (15 marks)

**Learning talks:**

Students have regular learning talks about their NEA, each programming project is different and based on any topic area the student chooses. Students can program their project in any language, each student needs to evidence the development of the program and demonstrate the final program is working in accordance to their success criteria.

**Project guidance:**

Analysis and designs must be drawn up before programming the project. There will be different versions of the designs showing different prototypes as the solution is being developed. The project development must be evidenced, to gain the highest grade. A front-end GUI - graphic user interface and backend database are required to access A/A\* grade boundaries. The evaluation can only take place once the project is programmed to allow comparison to the success criteria.