

# Subject: Computer Science

Key Stage	Low Stakes Quiz	Cultural Capital	Practice	Notes	Vocational Assignments	Frequency
3	See ICT					
4	✓		✓	✓		Once a week
5	✓		✓		✓	Once a week by each teacher

## Subject Homework Rationale

**Key Stage 4** - There are 3 strands to the homework:

- Notes** Once a week students have a theory lesson, so the classroom homework is to write notes in the form of Cornell Notes / Sketchnoting for that lesson using any or all of the resources from the lesson. Students are able to write key points for their notes whilst watching the video(s) in the lesson. In order to write the notes some processing of the information is required and returning to it after the lesson to complete the notes increases the exposure to this new learning. **Rationale:** exposure to learning materials between lessons is likely to help retrieval for theory knowledge and lesson the cognitive load associated with true flipped classroom (where students watch the materials before the lesson) of accessing materials without the teacher providing the structure e.g. providing links to prior learning, dealing with misconceptions etc. The notes are placed on the same page in OneNote Classbook as the lesson video(s) and associated workbook slides for better revision organisation.
- Practice** - Students have up to 3 lessons a fortnight learning Python programming. Students are required at least twice a week to open up Python at home and (minimum) try and recreate the correct syntax for the program they last completed in class (5-10 mins max). Any practical Python work over and above this using resources provided on Teams / Class Notebook is beneficial but optional. **Rationale:** retrieval practice for Year 10 practical skills learned to avoid 'slip-back' before the next practical lesson.
- Low Stakes Quiz** - In year 11 once Python basics have been established, we use Smart-Revise, a personalised low stakes quizzing package aimed at exam success. **Rationale:** knowledge retrieval practice to aid in mock exam and full exam success.

**Key Stage 5** (BTEC Level 3 National in Computing) – There are 3 strands to the homework

- Vocational Assignments** - In year 12 this consists of a combination of set assignments for Unit 7 – IT Systems Security and Encryption and preparatory work for the Year 13 Optional Unit (Games Development or Mobile Apps Development) – for the latter the teacher acts as a project manager guiding the students towards appropriate work for their needs. **Rationale:** here is to encourage initiative, problem solving and independence as valued by employers in the computing industry. In year 13 it is the set assignments for that optional unit.
- Practice** - Once exam unit teaching has concluded, students commence a program of past paper completion in the run up to the actual exam with one paper a week being completed, timed, marked using mark scheme, corrections, analysis and examiners reports, a large portion of this will take place outside of lessons. **Rationale:** Improve understanding of exam structure, question types and associated mark schemes, identification of any missing knowledge and understanding, feedback into improving relevant notes.
- Low Stakes Quiz** - During the teaching of examination units students are directed to KnowItAllNinja.com where they have accounts for topic revision, notes and low stakes quizzing. **Rationale:** Retrieval Practice for Topics