

Computer Science Best Practice Grid

<p>What should we see in Computer Science lessons as best practice?</p> <ul style="list-style-type: none"> - High expectations of all students – teaching from the top down rather than bottom up - Embedded routines to start of lessons – students log in to computers, books out, recap and retrieval - Excellent subject knowledge of the classroom teacher on topic being delivered - Health and Safety with IT equipment - Encouraging discussions around the subject – building cultural capital and the impact of CS in day-to-day life - Cross-curricular links made explicit when explaining and discussing - Activities and work set that provide challenge and scaffold for students to complete independently. - Linking back to previous learning - Linking forward to future learning and careers 	<p>What does effective questioning and scaffolding look like in <i>Computer Science</i>?</p> <ul style="list-style-type: none"> - Differentiated questioning, - We do activities to scaffold and implement faded guidance throughout examples - Cold calling students - Think / Pair / Share - Designated thinking time - No opt out. - Hinge Questions - Probing questioning, getting students to expand, think about why their answer is correct - Deliberate questioning of incorrect answers/misconceptions to teach subject correct knowledge - Students demonstrating why misconceptions are wrong. - Use of whiteboards
<p>What does great modelling and exposition look like in <i>Computer Science</i>?</p> <ul style="list-style-type: none"> - Clear knowledge-based explanations that purposely address misconceptions and reasons why - Application to real world concepts that students are able to relate to - Dual Coding on PPT slides. - Programming to be colour coded - Live coding and explanations - Faded guidance on examples on the board - Examples using real scenarios and situations to enhance discussions – eg NHS Data Leak 	<p>What does retrieval practice look like in <i>Computer Science</i>?</p> <ul style="list-style-type: none"> - Short concise questions with a definitive answer. - Low stakes questioning at the beginning of the lesson - Evaluation questions to test knowledge from previous lessons and topics - Subject specific questioning on terminology (Tier 3 words) - Exam style questions - Verbal retrieval questions – probing from one concept to another - Time bound retrieval practice – short and sharp to only address misconceptions rather than reteach
<p>What will you see in pupils' workbooks?</p> <p>KS3</p> <ul style="list-style-type: none"> - High levels of presentation - Clear definitions of key concepts using Cornell notetaking method - Clear learning episodes - Examples/exemplars and models - Scaffolded questioning - Faded guidance - Mistakes and misconceptions identified and addressed <p>KS4</p> <ul style="list-style-type: none"> - High levels of presentation - Keywords - Definitions of key concepts - Completed work examples - Cornell notetaking from videos - Workbooks that have definitions from homework books 	<p>What formative assessment and feedback will you see in <i>Computer Science</i>?</p> <ul style="list-style-type: none"> - End of topic tests - Retrieval Practice - identifying mistakes and misconceptions on Class Notebook - Smart Revise Quiz - Smart Revise Tasks (mix of MCQ, Key Terms and Exam Questions) - New assessment framework for KS3 - Verbal feedback - Exam based questions with mark schemes - Hinge Questions - Exit Tickets - Use of Whiteboards - Cold Calling - Quizzes

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