

## Developing a Knowledge-Rich Science Curriculum

**Source:** Heena Dave <https://parentsandteachers.org.uk/developing-a-knowledge-rich-science-curriculum/>

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**Summary:** How to develop a knowledge-rich curriculum for science based on work by Daniel T Willingham

- The ultimate aim of a knowledge-rich curriculum for Science is to create a persistent change in long-term memory through the sequencing of clear chunks of knowledge, signposting learning to the next level of complexity, whilst at the same time building science capital
- Knowledge should be presented in 'digestible chunks' - always moving from simple to complex
- Low stakes knowledge quizzes should be used to close the attainment gap - each quiz should be taken twice and be spaced out to give the pupils the opportunity to 'retrieve knowledge, to strengthen their schemas and therefore change long term memories'
- Children should be taken on a 'journey to mastery' - moving from low challenge questions to increasingly more complex questions. This will enable pupils to 'extend, connect and elaborate'