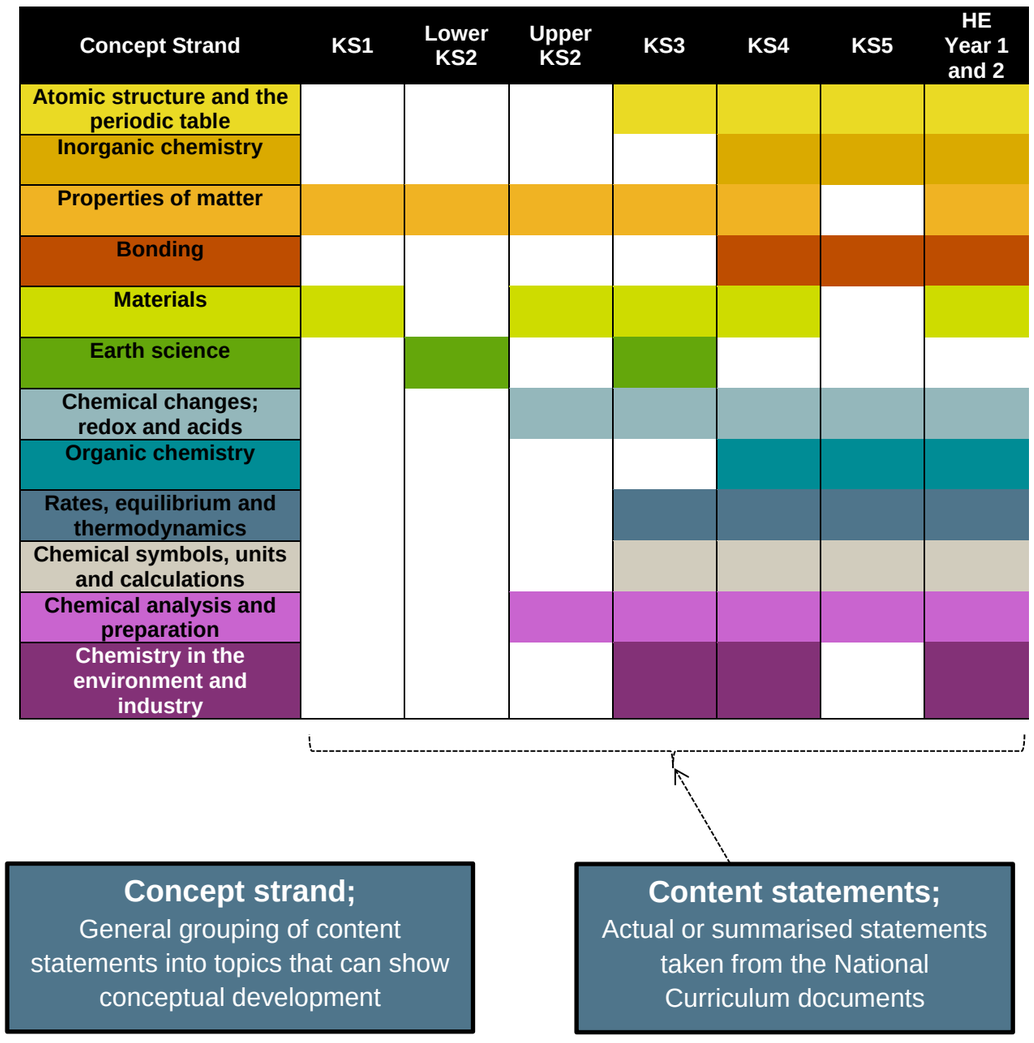
Guidelines for using the English Chemistry Curriculum map



What are the chemistry curriculum maps?

The maps have been designed as a tool to give an overview of the English chemistry curriculum. The map gives a summary of how and where chemical concepts are introduced, how they develop into more advanced understanding as the students progress through their schooling, and where chemical understanding culminates in areas of study in undergraduate chemistry courses.

How were they made?

The content statements at school level were taken from the National Curriculum Programme of Study documents for Chemistry, from KS1 through to KS5. Some are summaries of the content found in these documents.

The statements at university were taken from the module summaries of the undergraduate courses of 10 universities, chosen to present a representative summary of what is covered in the first and second year of an undergraduate chemistry course in England.

The content is split into 12 groups, called ‘Concept Strands’. The concept strands were developed to show the progression of conceptual understanding throughout the school chemistry curriculum.

How should you use the maps?

You can use the maps in any way you wish. They may be useful as an overview of concept progression, and as a basis for curriculum planning especially at the transitions from one Key Stage to the next. Sixth-form teachers can use the information about HE content to prepare students for undergraduate study, while HE lecturers can get an at-a-glance overview of their students’ prior learning. This map may be useful for learners from other nations moving to England, or for teachers in other nations welcoming learners from England. Finally, science educators may use this map in comparisons of learning in different nations, to support the debate about development and choices in curriculum design.

The maps are provided as two formats;

- As a non-editable PDF, which could be printed out as a standalone resource
- As an editable Excel file, which you can develop, edit, and use as you wish

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NB; the curriculum map shows how chemical concepts are learnt according to the National Curriculum; any absence of content in an age group does not necessarily mean that it is not taught in this age group. For example, teachers may teach more, or more detailed, content to their classes, as well as relevant context. Also, specifications at GCSE and A-level will add greater depth and breadth to the content specified in the curriculum map. Furthermore, some content may not appear in the National Curriculum, as it is considered assumed knowledge. The map shows the basic chemical knowledge which can be assumed a student will have learnt at the end of each Key Stage.