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Exam Board: AQA Level: AS/A-level Subject: Chemistry First Teaching: September 2015 First Exam: June 2016 Written by experienced examiners Alyn McFarland and Nora Henry, this Student Guide for Chemistry: - Helps you identify what you need to know with a concise summary of the topics examined in the AS and A-level specifications - Consolidates understanding with tips and knowledge check questions - Provides opportunities to improve exam technique with sample answers to exam-style questions - Develops independent learning and research skills - Provides the content for generating individual revision notes

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Emphasises on contemporary applications and an intuitive problem-solving approach that helps students discover the exciting potential of chemical science. This book incorporates fresh applications from the three major areas of modern research: materials, environmental chemistry, and biological science. Chemistry: A Guided Approach 6th Edition follows the underlying principles developed by years of research on how readers learn and draws on testing by those using the POGIL methodology. This text follows inquiry based learning and correspondingly emphasizes the underlying concepts and the reasoning behind the concepts. This text offers an approach that follows modern cognitive learning principles by having readers learn how to create knowledge based on experimental data and how to test that knowledge. Over the last decades several researchers discovered that children, pupils and even young adults develop their own understanding of "how nature really works". These pre-concepts concerning combustion, gases or conservation of mass are brought into lectures and teachers have to diagnose and to reflect on them for better instruction. In addition, there are 'school-made misconceptions' concerning equilibrium, acid-base or redox reactions which originate from inappropriate curriculum and instruction materials. The primary goal of this monograph is to help teachers

at universities, colleges and schools to diagnose and 'cure' the pre-concepts. In case of the school-made misconceptions it will help to prevent them from the very beginning through reflective teaching. The volume includes detailed descriptions of class-room experiments and structural models to cure and to prevent these misconceptions. This book presents both fundamental knowledge and latest achievements of this rapidly growing field in the last decade. It presents a complete and concise picture of the the state-of-the-art in the field, encompassing the most active international research groups in the world. Led by contributions from leading global research groups, the book discusses the functionalization of semiconductor surface. Dry organic reactions in vacuum and wet organic chemistry in solution are two major categories of strategies for functionalization that will be described. The growth of multilayer-molecular architectures on the formed organic monolayers will be documented. 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Drawing Ionic Bonding - 10 Compounds  
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Drawing Covalent Bonding - 10 Compounds  
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Electron configurations  
Drawing electron configurations  
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At every stage the authors remind you of the relevance of this chemistry to your life or medical sciences course - this is not just chemistry for the sake of it. The book also contains a lot of questions (and answers), so that you can test your understanding at any time - it really does get easier with practice!

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