



**TwentyTwentyLearning**  
Thinking Transformed



Everything you need to know about...

# STRUCTURE & BONDING

BEAT THE COVID-19 EDUCATION CHALLENGE WITH OUR VIRTUAL 'LIVE' SCIENCE PROGRAMMES

Four 1-hour ZOOM lessons focusing on everything your students need to know about Structure and Bonding for their GCSE exams. Each 'virtual lesson' will include an introduction and explanation; development tasks, specific examples, practice exam questions and quizzes.

Detailed, clear and colourful work booklets will be sent to your students' home addresses in advance of the 'Everything you need to know...' programme. A register of attendees will be sent to you after the programme.

Each programme will accommodate up to a maximum of 15 students and be led by one of our subject-specialists.

Virtual Learning Via Zoom



### States of Matter

Review of the three states of matter and their identifying properties. Explanation of change of state and the energy transfers involved.

### Molecular & Giant Covalent Structures

Be able to produce diagrams of molecular and giant covalent structures. Identify and explain the properties of covalent substances. Answer exam type questions that involve the application of this understanding.

### Atoms to Ions

Students will review atomic structure and be able to describe chemical reactions between metals and non-metals in terms of gaining or losing electrons. They will practise producing diagrams to represent ionic bonding

### Giant Ionic Structures

Students will develop an understanding of Giant ionic structures and their properties. They will be able to explain why they conduct when molten (electrolytes).

### Covalent Bonding

Learn that non-metals bond covalently by sharing outer electrons. Students will be able to explain why they do not conduct electricity and be able to produce diagrams to represent covalent bonding.

### Bonding in Metals

Students will be able to describe metallic bonding as a group of metallic ions held together in a sea of electrons. They will be able to produce labelled diagrams and explain why all metals conduct.

Contact us now to book your 'Everything you need to know...' programme.

**01279 877955**