

## Cardiff & Vale Intensive Revision Courses

We offer 3 or 5 week courses in the following Academic subjects

- ❖ Chemistry GCSE & A level
- ❖ Biology & Physics GCSE & Alevel
- ❖ History GCSE & A level
- ❖ Sociology GCSE & A level
- ❖ English Language & English Literature
- ❖ A level Business Studies

Please see below for an outline of how the courses work!

### A level Online Chemistry -5 week course

**Week 1 - Stereoisomerism.** AS recap of isomers and what the difference is between a structural isomer and stereoisomer. What an optical isomer is and how to recognise one using and drawing full structural formulae and also skeletal formulae.

**Week 2 - Enantiomers.** What enantiomers are and how they fall into the category of stereoisomers. Different ways to represent enantiomers in exam format in addition to using techniques to distinguish between different enantiomers.

**Week 3 - Aromatic chemistry.** The study of benzene and associated calculations to demonstrate the stability of benzene. Bonding and structure in benzene



**Week 4 - Common reactions** of benzene and mechanism of action with exam tips of how to obtain maximum marks in an exam setting when drawing benzene mechanisms. The study of why benzene does not undergo other reaction types

**Week 5 - Summary of both topics**, focussing specifically on common errors and tips to maximise marks at A level (from an A level examiner!!) Looking at student answers and self marking past paper questions

This course is taught online to a small group of students by Nathan, a qualified Chemistry teacher since 2014 who currently teaches GCSE and A level Chemistry in a local Cardiff 11-18 school. Prior to becoming a Chemistry teacher, Nathan has a degree in Chemistry (obtaining a first class honours degree) . I have over 9 years of tutoring experience at GCSE and A level Chemistry for AQA, OCR and WJEC and examine annually at both GCSE and A level.

## A level Biology

Over the course of 5 lessons This course covers the following:

**Lesson 1** What is a protein and why are they important biological molecules? Including explaining how amino acids form the primary structure of proteins, explaining how polypeptides are arranged to form the secondary and tertiary structure of proteins, explaining how the quaternary structure of protein is formed and describing the test for proteins.

**Lesson 2** How do enzymes speed up chemical reactions? Including explaining how enzymes speed up chemical reactions, explaining the lock and key and induced-fit models of enzyme action and describing how the rate of an enzyme-controlled reaction is measured.

**Lesson 3** How do temperature, pH and concentration affect enzyme action? Including explaining how temperature affects the rate of an enzyme-controlled reaction, explaining how pH affects the rate of an enzyme-controlled reaction and explaining how substrate and enzyme concentration affect the rate of reaction.

**Lesson 4** How do enzyme inhibitors work? Including describing the nature of enzyme inhibition, explaining how competitive inhibitors affect the active site and explaining how non-competitive inhibitors affect the active site.

**Lesson 5** How can you improve your knowledge and application of knowledge in protein structure and enzymes questions? Including analysing and interpreting biology exam questions, applying your biology knowledge to exam questions and evaluating your answers in order to improve further.

This course is taught by Bethan, a former head of Science with experience of examining for WJEC, AQA, OCR and Edexcel for Biology, Chemistry and Physics at GCSE and Biology and Chemistry at A level.

Bethan is a talented author writing for amongst others-Pearson, Britannia and the Discovery Channel. She also helps train science teachers and produces resources to be shared nationally by the PiXL group. Bethan will help students identify areas for improvement and provide the necessary advice to make those improvements in spades!



## A LEVEL- Spanish -2 hour sessions



**Week 1** - Online session + Writing Homework  
Topic - LA GUERRA CIVIL Y LA TRANSICIÓN ESPAÑOLA

**Week 2** - Online session + Writing Homework  
Topic - SITUACIÓN POLÍTICA Y SOCIAL ACTUAL EN ESPAÑA

**Week 3** - Online session + Writing Homework

Topic - RACISMO, INMIGRACIÓN E INTEGRACIÓN

This Online Academic Course is taught by a qualified teacher who has 20 years experience of teaching in both Spain and Wales.

Sara is a native Spanish teacher and enjoys sharing her experience and knowledge of the Spanish language and culture with people who are interested in improving their current skills.