

A Level Bridging Work

Chemistry

The tasks below are designed to support you as you start A Level Chemistry

Complete each of the tasks below and bring your work to your first lesson

Task 1 – use the information below to guide your revision around key topics from GCSE to ensure your knowledge and skills are secure for you to be successful as you start at A Level Chemistry.

You will need to prepare a 5 minute presentation on each of the topics in your first lesson. You will only have your summaries and a whiteboard to present your presentation (no PowerPoint).

Revision topics AQA GCSE Chemistry - Specification On the AQA website	Topics that were not covered in trilogy chemistry (combined) but you need to be aware of.
4.1 Atomic structure and the periodic table	<ul style="list-style-type: none"> • Properties of transition metals – Comparison and typical properties
4.2 Bonding, structure, and the properties of matter.	<ul style="list-style-type: none"> • Sizes of particles and their properties • Uses of nanoparticles
4.3 Quantitative chemistry	<ul style="list-style-type: none"> • Percentage yield • Atom economy • Using concentrations of solutions in mol/dm³ • Use of amount of substance in relation to volumes of gases
4.4 Chemical changes	<ul style="list-style-type: none"> • Titrations
4.5 Energy changes	<ul style="list-style-type: none"> • Cell and fuel cells not required
4.6 The rate and extent of chemical change	
4.7 Organic chemistry	<ul style="list-style-type: none"> • Structure and formulae of alkenes • Reactions of alkenes • Alcohols • Carboxylic acids • Addition polymerization
4.8 Chemical analysis	<ul style="list-style-type: none"> • Flame tests • Metal hydroxides test • Carbonate test • Halides tests • Sulfate test

Essential skills

In order to do well at chemistry you will need be confident in the following skills.

If you are struggling with these skills seek support as early as you can when you start the course.

- Write balanced equations for the reactions above.
- Determine the structure of a chemical from its name or formula
- Determine the bonding of a chemical from its name
- Predict, describe and explain properties based on its structure
- Rearrange formulae in equations
- Calculate relative formula mass
- Recall lots of information – **See Task 2**

Task 2 – Learn the following 50 items – you will be tested for your recall skills.

1 – floor; 2 – coasters; 3 - twister; 4 – cheque book; 5 – piano; 6 – tomato; 7- soy sauce packet; 8 – buckle; 9 – mirror; 10 - paint brush; 11 - scotch tape; 12 – pillow; 13 - plastic fork; 14 - key chain; 15- radio; 16 - mp3 player; 17 - water bottle; 18 - cookie jar; 19 - face wash; 20 - tooth picks; 21 – wallet; 22 – keyboard; 23 – lamp; 24 – computer; 25 - photo album; 26 – thermometer; 27 – spoon; 28 - box; 29 – tweezers; 30 – carrots 31 – sailboat 32 – Nigella seeds ; 33 - ice cube tray; 34 - USB drive; 35 - eye liner; 36 – cork; 37 – deodorant; 38 - lip gloss; 39 - packing peanuts; 40 - glasses; 41 - lotion; 42 sticky note; 43 - rusty nail; 44 - boom box; 45 - cell phone; 46 toothpaste; 47 stockings; 48 chalk; 49 – truck; 50 - model car

Task 3

As an essay, between 600-700 words that describes and evaluates the historical events that contribute to our modern day model of the atom and periodic table.

Challenge – Within this, discuss how the structure of the atom is linked to the chemical and physical properties of elements. Use this to justify the modern arrangement of elements in the periodic table.