

Exam Board:	AQA
Subject:	Chemistry
Paper:	Chemistry Paper 2
Marks available:	70
Length of paper:	75 minutes
Topics:	Rate and extent of chemical change, organic chemistry, chemical analysis, the atmosphere, using resources and skills

Exam Information, guidance and hints

Command words:

- Complete - Fill in gaps/add labels
- Balance - Add large numbers only in front of chemical formula
- Give - Recall a simple fact
- Draw - Draw a symbol, diagram or graph
- Describe - Give details about an event, idea or a process
- Explain - Give reasons for an event, idea or process (use because/so)
- Define - write the meaning of a word or term
- Compare - Identify how things are similar/different
- Suggest - Use your own knowledge in an unfamiliar context
- Plan - Write a method for carrying out a practical
- Calculate - Use numbers in a formula
- Name - Recall the name of a piece of equipment or person
- Estimate - Use data and evidence to predict a value

Online Resources

- [Cognito past papers](#)

Hints/tips:

- Ensure you tick the right number of boxes on multiple choice questions
- Use a ruler for straight lines of best fit but not curved lines.
- For calculation questions, use the equations provided
- Ensure you give to answers to the stated number of significant figures or decimal places
- When asked about observations, refer to what you can see happening, not what you know is happening at a molecular level
- When comparing, use comparative language such as **whereas**, **larger**, **smaller etc**
- Ensure you refer to data in graphs and tables when asked to in order to support your explanations
- Uncertainty is calculated by dividing the range of the data by 2.
- Relative formula mass is the total mass of all the individual elements in the compound

Foundation Example Papers and Markschemes

Higher Example Papers and Markschemes

2018 F Paper	Annotated P2	2018 MS	2018 H paper	Annotated P2	2018 MS
2019 F Paper	Annotated P2	2019 MS	2019 H Paper	Annotated P2	2019 MS
2020 F Paper	Annotated P2	2020 MS	2020 H Paper	Annotated P2	2020 MS

PLC Chemistry Paper 1 - Mock 1

Topic	Key information related to topic	Sparx Code	Resources/Information related to topic	How well do you understand this topic? RAG		
				Red	Amber	Green
Rates of Reaction	Describe what collision theory is	R895	https://www.youtube.com/watch?v=wbGglfHsx-I			
Rates of Reaction	Describe how to investigate rates of reaction by collecting gas	R280	https://www.youtube.com/watch?v=ssa3wh3RNt0&t=34s			
Rates of Reaction	Explain the effect of factors such as temperature, surface area, concentration and pressure on the rate of a reaction	R895	https://www.youtube.com/watch?v=-4HXaUBbv04			
Rates of Reaction	Explain the effect of adding a catalyst to a reaction	R601	https://www.youtube.com/watch?v=-4HXaUBbv04			
Rates of Reaction	Describe what a reversible reaction and equilibrium are	R768	https://www.youtube.com/watch?v=ty9TczsW5ew			
Rates of Reaction	Explain how energy changes occur in reversible reactions	R768	https://www.youtube.com/watch?v=5rC6f_P_A48			
Rates of Reaction	HT Only: Draw tangents to curves to allow for rates of reaction to be calculated	R771	https://www.youtube.com/watch?v=6LV63WtuvJg			
Rates of Reaction	HT Only: Calculate the rate of a reaction using quantities in terms of moles	R771	https://www.youtube.com/watch?v=UkrBJ6-uGFA&list=PL9louNCPbCxW8AN0t0py7LaKdKSfwL3fP			
Rates of Reaction	HT ONLY: Use Le Chatelier's principles to explain changes in reaction yields	R115	https://www.youtube.com/watch?v=IYyoncESnmQ			
Organic Chemistry	Draw the displayed structure of hydrocarbons	R837	https://www.youtube.com/watch?v=CX2IYWggEBc			
Organic Chemistry	Describe the structure of hydrocarbons	R837	https://www.youtube.com/watch?v=CX2IYWggEBc			

Topic	Key information related to topic	Sparx Code	Resources/Information related to topic	How well do you understand this topic? RAG		
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Organic Chemistry	Compare alkanes and alkenes	R837 R418	https://www.youtube.com/watch?v=Sfm3eHe57PU			
Organic Chemistry	Describe how fractional distillation is used to produce different fractions	R205	https://www.youtube.com/watch?v=CjmriZq5xRo			
Organic Chemistry	Describe the process of cracking	R240	https://www.youtube.com/watch?v=7AWwjKbRa_o			
Organic Chemistry	Describe the process of fractional distillation	R205	https://www.youtube.com/watch?v=CjmriZq5xRo&t=13s			
Organic Chemistry	Explain why hydrocarbons are useful as fuels	R837	https://www.youtube.com/watch?v=8PM_tWNfbGY			
Chemical Analysis	Describe what is meant by a pure substance	R281	https://www.youtube.com/watch?v=3oJxWwcnfJY			
Chemical Analysis	Describe how to test for different gases	R443	https://www.youtube.com/watch?v=bcRGfSIMIMw			
Chemical Analysis	Define and give examples of formulations	R256	https://www.youtube.com/watch?v=-OtJI-R-4rU			
Chemical Analysis	Describe how to carry out paper chromatography	R638	https://www.youtube.com/watch?v=TdJ57SQ6GAQ			
Chemical Analysis	Interpret chromatograms from a chromatography investigation	R720	https://www.youtube.com/watch?v=sCvKP_NFG4c			
Chemical Analysis	Analyse and calculate R _f values from chromatograms	R720	https://www.youtube.com/watch?v=TdJ57SQ6GAQ			
Atmosphere	Describe how the percentages of different gases in the atmosphere have changed over	R225	https://www.youtube.com/watch?v=l0h_-3M0Pso			

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	time					
Atmosphere	Explain why the composition of the atmosphere has changed over time	R225	https://www.youtube.com/watch?v=DnFcyhsSVGg			
Atmosphere	Identify and explain the effects of greenhouse gases	R728	https://www.youtube.com/watch?v=Z_b2A-d5hGY			
Atmosphere	Explain how humans are contributing to global climate change	R728	https://www.youtube.com/watch?v=rqWzK_DeheY			
Atmosphere	Explain the impact of carbon footprints and how they can be reduced	R873	https://www.youtube.com/watch?v=A74Sf8U3v_E			
Atmosphere	Explain the effects of atmospheric pollutants	R119	https://www.youtube.com/watch?v=2ri95j0cShg&t=140s			
Resources	Explain the importance of sustainable development	R912	https://www.youtube.com/watch?v=pKOf6WvYgMQ			
Resources	Describe the processes involved in producing potable water from groundwater, salt water and sewage	R898	https://www.youtube.com/watch?v=PDeiRIQvWnM			
Resources	Describe how to calculate the mass of salt found in a salt solution	R759	https://www.youtube.com/watch?v=DikcEq2wg8g&t=167s			
Resources	Evaluate the use of different materials and their impact on the environment	R228	https://www.youtube.com/watch?v=obb-ZHqBw10			
Resources	Explain the importance of life cycle assessments and how to carry one out	R826	https://www.youtube.com/watch?v=-i_Eug83uzo			
Resources	Explain how to reduce the use of resources	R228	https://www.youtube.com/watch?v=BrMcHPwHat8			

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Resources	HT Only: Explain how to extract metals from their low grade ores	R403	https://www.youtube.com/watch?v=b5RVPauf4oM			
Resources	Explain what corrosion is and how it can be prevented	R561	https://www.youtube.com/watch?v=q0CAfXV-YdY&t=52s			
Resources	Explain how alloys make useful materials	R907	https://www.youtube.com/watch?v=QRDctnk7sF4&t=11s			
Resources	Describe the properties and uses of ceramics, polymers and composites	R287	https://www.youtube.com/watch?v=Z5-tvPVhmfY			
Resources	Explain the haber process.	R511	https://www.youtube.com/watch?v=1_HoWz5Kxfk&t=30s			
Resources	HT only: Explain why a compromise of conditions is needed in the haber process	R163	https://www.youtube.com/watch?v=HAkaD6-7fgQ&t=130s			
Resources	Explain how NPK fertilisers are produced and why they are important	R511	https://www.youtube.com/watch?v=rKzt9BvvEeQ			
Skills	Calculate relative formula mass	R195	https://www.youtube.com/watch?v=it_fmQu5ivg			
Skills	Identify variables in an investigation	N/A	https://www.youtube.com/watch?v=nKbUbfadxRU			
Skills	Draw a variety of different types of graph (bar, scatter)	R703 R148	https://www.youtube.com/watch?v=VM3i6-gvKSA			