

Please read the instructions printed at the end of this form. **One** of these sheets, suitably completed, should be attached to the assessed work of **each** candidate.

<b>Unit Title</b>	<b>Synthesising Organic Chemicals</b>	<b>Unit Code</b>	<b>G629</b>	<b>Session</b>	Jan / June	<b>Year</b>	<b>2</b>	<b>0</b>		
<b>Centre Name</b>						<b>Centre Number</b>				
<b>Candidate Name</b>						<b>Candidate Number</b>				

**Evidence:** The candidate needs to produce evidence of their investigation in to synthesising organic chemicals.

Criteria			Teacher Comment	Mark	Page No.
<p>AO1(a).1: Candidate will show a basic knowledge and understanding of the classifications of organic compounds and will be able to</p> <ul style="list-style-type: none"> <li>• name organic compounds</li> <li>• identify functional groups</li> <li>• draw structural and displayed formulae</li> <li>• explain isomerism;</li> </ul> <p>their research will show some evidence of selection and suitable referencing;</p> <p style="text-align: right;"><b>[0 1]</b></p>	<p>AO1(a).2: candidate will show knowledge and understanding of the classifications of a range of organic compounds and be able to</p> <ul style="list-style-type: none"> <li>• name organic compounds</li> <li>• identify functional groups</li> <li>• draw structural and displayed formulae</li> <li>• explain isomerism and discuss the difference in properties between isomers;</li> </ul> <p>their research will show evidence of the use of selection from a range of sources and suitable referencing;</p> <p style="text-align: right;"><b>[2]</b></p>	<p>AO1(a).3: candidate will show a thorough knowledge and understanding of the classifications of a wide range of organic compounds and will be able to</p> <ul style="list-style-type: none"> <li>• name organic compounds</li> <li>• identify functional groups within molecules</li> <li>• draw structural and displayed formulae</li> <li>• explain the importance of isomerism with relation to the difference in properties between isomers;</li> </ul> <p>candidate will show relevant selective information that will be clearly presented and referenced.</p> <p style="text-align: right;"><b>[3]</b></p>			
<p>AO1(b).1: Candidate will show understanding of <b>four</b> reaction types by</p> <ul style="list-style-type: none"> <li>• giving examples using appropriate nomenclature</li> <li>• relating the reaction type to the specific functional group;</li> </ul> <p style="text-align: right;"><b>[0 1]</b></p>	<p>AO1(b).2: candidate will show understanding of <b>four</b> of the reaction types listed in the specifications by</p> <ul style="list-style-type: none"> <li>• selecting examples using appropriate nomenclature</li> <li>• relating the reaction type to the specific functional group;</li> </ul> <p>candidate will describe the reaction types using correct scientific terminology; information will be clearly presented;</p> <p style="text-align: right;"><b>[2]</b></p>	<p>AO1(b).3: candidate will show understanding and explain of <b>at least five</b> reaction types listed in the specifications by</p> <ul style="list-style-type: none"> <li>• giving examples using appropriate nomenclature</li> <li>• relating the reaction type to the specific functional group</li> </ul> <p>candidate will explain the reaction types using correct scientific terminology; information will be clearly presented.</p> <p style="text-align: right;"><b>[3]</b></p>			

Criteria			Teacher Comment	Mark	Page No.
AO1(c).1: Candidate will research two drug types listed in the specifications and show a basic knowledge and understanding of therapeutic drugs, their usage and mode of action in the body; scientific terms and conventions will have generally been used correctly in the report with corrected punctuation and grammar; <b>[0 1]</b>	AO1(c).2: candidate will research three of the drug types listed in the specifications and show detailed knowledge and understanding of therapeutic drugs, their usage and mode of action in the body; scientific terms and conventions will have been used correctly in the report with correct punctuation and grammar; <b>[2 3]</b>	AO1(c).3: candidate will research at least three drug types listed in the specifications and show a detailed knowledge and understanding of therapeutic drugs, their usage and mode of action in the body; explanations of the therapeutic effect of drugs will be given and the use of the drugs evaluated; scientific terms and conventions will have been used correctly in explanations throughout, with correct spelling, punctuation and grammar. <b>[4]</b>			
AO2(a).1: Candidate will produce information on a process used to manufacture an organic compound; candidate will identify most of the factors needed to be considered to ensure a safe and economic process, selecting some appropriate sources and presenting information clearly; <b>[0 1 2]</b>	AO2(a).2: candidate will show researched evidence of a process used to manufacture an organic compound; candidate will identify all the factors needed to be considered to ensure a safe and economic process, selecting a range of appropriate sources and interpreting information clearly; <b>[3]</b>	AO2(a).3: candidate will show detailed and selective research on a process used to manufacture an organic compound; candidate will describe the factors needed to be considered to ensure a safe and economic process, using a wide range of appropriate sources and interpreting information clearly, evaluating and justifying this information, and presenting it clearly, concisely and coherently. <b>[4 5]</b>			
AO2(b).1: Candidate will find and use information about some of the costs and benefits of the organic compound and its manufacture to  <ul style="list-style-type: none"> <li>• individuals</li> <li>• companies</li> <li>• society;</li> </ul> <b>[0 1 2]</b>	AO2(b).2: candidate will find and explain information about the costs and benefits of the organic compound and its manufacture to  <ul style="list-style-type: none"> <li>• individuals</li> <li>• companies</li> <li>• society;</li> </ul> information will be clearly presented; <b>[3]</b>	AO2(b).3: candidate will find, explain and evaluate information about the costs and benefits of the organic compound and its manufacture to  <ul style="list-style-type: none"> <li>• individuals</li> <li>• companies</li> <li>• society;</li> </ul> information will be presented clearly and concisely. <b>[4 5]</b>			
AO2(c).1: Candidate will demonstrate that they have completed straightforward calculations either related to their research or to their preparations; some assistance may have been used; <b>[0 1]</b>	AO2(c).2: candidate will demonstrate that they have completed simple and complex calculations correctly either related to their research or to their preparations with little assistance; <b>[2 3]</b>	AO2(c).3: candidate will demonstrate that they have completed correctly and independently complex calculations either related to their research or to their preparations. <b>[4]</b>			

Criteria				Teacher Comment	Mark	Page No.
AO3(a).1: Candidate will record evidence of the safe completion of the preparation and purification of two organic compounds, one of which is a useful drug;  candidate will give evidence of the use of valid risk assessments;  <b>[0 1 2 3 4]</b>	AO3(a).2: candidate will record evidence of the planning and the safe completion of the preparation and purification of two organic compounds, one of which is a useful drug, using a range of techniques; candidate will give evidence that they have used COSHH data to produce valid risk assessments with some assistance;  <b>[5 6 7 8]</b>	AO3(a).3: candidate will record evidence of independent planning and the skilful and safe completion of the preparation and purification of two organic compounds, one of which is a useful drug, using a wide range of techniques and justifying reasons for the use of such techniques; candidate will independently produce and use risk assessments using COSHH data where appropriate.  <b>[9 10]</b>				
AO3(b).1: Candidate will make and record some observations and measurements for both preparations and purifications and display information clearly;  <b>[0 1]</b>	AO3(b).2: candidate will make and record in a suitable format observations and measurements from both preparations and purifications to the appropriate level of precision;  <b>[2]</b>	AO3(b).3: candidate will make and record accurately all relevant observations and measurements from both preparations, with the appropriate precision, and display all information clearly and logically.  <b>[3 4]</b>				
AO3(c).1: Candidate will provide evidence of some processing and interpretation of the results;  <b>[0 1 2]</b>	AO3(c).2: candidate will provide evidence of the processing of results from both preparations; the processing will be set out clearly;  <b>[3 4]</b>	AO3(c).3: candidate will provide correct processing of all the results from both preparations; the processing will be set out clearly and logically.  <b>[5 6]</b>				
AO3(d).1: Candidate will draw some conclusions related to both preparations and give a basic evaluation of the practical work;  <b>[0 1 2]</b>	AO3(d).2: candidate will draw conclusions with explanations related to the outcomes of both preparations and evaluate the practical work suggesting alternative techniques;  <b>[3 4]</b>	AO3(d).3: candidate will draw detailed conclusions explaining and evaluating both practicals and suggesting alternative techniques or routes where appropriate.  <b>[5 6]</b>				
<b>Total/50</b>						
If this work is a re-sit, please tick	Session and Year of previous submission	Jan / June	<b>2 0</b>	Please tick to indicate this work has been standardised internally		

Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website ([www.ocr.org.uk](http://www.ocr.org.uk)).  
A completed Centre Authentication form CCS160 **must** accompany the MS1 when it is sent to the moderator.

### Guidance on Completion of this Form

- 1 **One** sheet should be used for each candidate.
- 2 Please ensure that the appropriate boxes at the top of the form are completed.
- 3 Please enter *specific* page numbers where evidence can be found in the portfolio, and where possible, indicate to which part of the text in the mark band the evidence relates.
- 4 Circle the mark awarded for each strand of the marking criteria in the appropriate box and also enter the circled mark in the final column.
- 5 Add the marks for the strands together to give a total out of 50. Enter this total in the relevant box.