

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.											
Unit Title	Electrons in Action					Unit Code	G631	Session	June	Year	2 0
Centre Name								Centre Number			
Candidate Name								Candidate Number			
Evidence: The candidate needs to produce evidence of their investigation into the principles and applications of electrochemical changes											
Criteria			Teacher Comment	Mark	Page No.						
<p>AO1(a).1: Candidate will demonstrate a basic knowledge and understanding of the principles of electrochemical change as outlined in the specifications;</p> <p>candidate will give at least two examples of the applications of electrochemical change; candidate will use corrected scientific terminology and conventions;</p> <p style="text-align: right;">[0 1]</p>	<p>AO1(a).2: candidate will demonstrate a sound knowledge and understanding of the principles of electrochemical change as outlined in the specifications;</p> <p>candidate will give a range of examples of the applications of electrochemical change; candidate will give clear explanations and use correct scientific terminology and conventions;</p> <p style="text-align: right;">[2 3]</p>	<p>AO1(a).3: candidate will demonstrate a thorough knowledge and understanding of the principles of electrochemical change as outlined in the specifications;</p> <p>candidate will give a wide range of examples of the applications of electrochemical change;</p> <p>candidate will give clear explanations and use correct scientific terminology and conventions appropriately</p> <p style="text-align: right;">[4 5]</p>									
<p>AO1(b).1: Candidate will research the application of electrochemical changes in the production of</p> <ul style="list-style-type: none"> • an electric current • metals; <p>information will have been selected and presented clearly with evidence of corrected punctuation and grammar;</p> <p style="text-align: right;">[0 1]</p>	<p>AO1(b).2: candidate will research the application of electrochemical changes in the production of</p> <ul style="list-style-type: none"> • an electric current • metals • giving a range of examples; <p>information will have been selected, explained and presented clearly with spelling, punctuation and grammar mainly used correctly;</p> <p style="text-align: right;">[2 3]</p>	<p>AO1(b).3: candidate will research the application of electrochemical changes in the production of</p> <ul style="list-style-type: none"> • an electric current • metals • giving a wide range of examples; <p>information will have been selected, explained and presented clearly with correct use of spelling, punctuation and grammar throughout.</p> <p style="text-align: right;">[4 5]</p>									

Criteria			Teacher Comment	Mark	Page No.
<p>AO2(a).1: Candidate will research two types of commercial cells, giving at least one example for each type; candidate will compare the cells for</p> <ul style="list-style-type: none"> • construction and method of producing an electric current • resources used in production • efficiency • safety and environmental effect • sustainability • use; <p>information will be presented clearly;</p> <p style="text-align: right;">[0 1 2 3 4]</p>	<p>AO2(a).2: candidate will research three types of commercial cells and give at least one example for each type; candidate will compare the cells for</p> <ul style="list-style-type: none"> • construction and method of producing an electric current • resources used in production • efficiency • safety and environmental effect • sustainability • use; <p>information will be explained and presented clearly;</p> <p style="text-align: right;">[5 6]</p>	<p>AO2(a).3: candidate will research commercial cells and give at least one example for a wide range of cells;</p> <p>candidate will compare the cells for</p> <ul style="list-style-type: none"> • construction and method of producing an electric current • resources used in production • efficiency • safety and environmental effect • sustainability • use; <p>information will be explained in detail and presented clearly.</p> <p style="text-align: right;">[7 8]</p>			
<p>AO2(b).1: Candidate will carry out some straightforward calculations of</p> <ul style="list-style-type: none"> • emf of cells • quantity of charge; <p>candidate will research and use data to compare the efficiency of commercial cells;</p> <p style="text-align: right;">[0 1 2]</p>	<p>AO2(b).2: candidate will carry out calculations of</p> <ul style="list-style-type: none"> • emf of cells • quantity of charge • mass of products; <p>candidate will research and use data to compare the efficiency of commercial cells; candidate will obtain correct solutions;</p> <p style="text-align: right;">[3 4]</p>	<p>AO2(b).3: candidate will carry out complex calculations of</p> <ul style="list-style-type: none"> • emf of cells • quantity of charge • mass of products; <p>candidate will research and use data to compare the efficiency of commercial cells;</p> <p>candidate will obtain correct solutions to the appropriate degree of accuracy.</p> <p style="text-align: right;">[5 6]</p>			

<p>AO3(a).1: Candidate will plan suitable experiments to investigate the effect of changing one condition on</p> <ul style="list-style-type: none"> • emf of a cell • mass of copper deposited during electrolysis; <p>there will be evidence of the use of a risk assessment;</p> <p style="text-align: right;">[0 1 2 3 4]</p>	<p>AO3(a).2: candidate will plan suitable experiments to investigate the effect of changing conditions on</p> <ul style="list-style-type: none"> • emf of a cell • mass of copper deposited during electrolysis; <p>candidate will produce risk assessments consistent with COSHH guidelines;</p> <p>candidate will work with an appropriate degree of accuracy;</p> <p style="text-align: right;">[5 6]</p>	<p>AO3(a).3: candidate will plan suitable experiments to investigate the effect of changing a wide range of conditions on</p> <ul style="list-style-type: none"> • emf of a cell • mass of copper deposited during electrolysis; <p>one of the changes in conditions should show no effect;</p> <p>candidate will produce detailed risk assessments consistent with COSHH guidelines;</p> <p>candidate will work with an appropriate degree of accuracy and candidate will explain any practical techniques that will improve results.</p> <p style="text-align: right;">[7 8]</p>			
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Criteria					Teacher Comments	Mark	Page No.
AO3(b).1: Candidate will make and record relevant observations and measurements for both experiments; the data will be displayed clearly; [0 1 2 3 4]	AO3(b).2: candidate will make and record relevant observations and measurements for both experiments; the measurements will be recorded to the appropriate degree of accuracy and the data will be displayed clearly; [5 6]	AO3(b).3: candidate will make and record relevant observations and measurements for both experiments; the measurements will be recorded to the appropriate degree of accuracy and the data will be displayed clearly and used in appropriate calculations. [7 8 9]					
AO3(c).1: Candidate will try to interpret the results for both experiments; [0 1 2]	AO3(c).2: candidate will interpret the results and draw basic conclusions for both experiments; candidate will evaluate the procedures; [3 4 5 6]	AO3(c).3: candidate will interpret the results in detail and draw conclusions for both experiments; candidate will evaluate the procedures and suggest alternatives. [7 8 9]					
					Total/50		
If this work is a re-sit, please tick	Session and Year of previous submission	Jan / June	2	0	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).

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.