

# Science

## OCR J816 Unit R076 Level 1/Level 2

#### **Cambridge Nationals Certificate in Science**

### **Unit Recording Sheet**

Please read the instructions	s printed at the en	d of this form. <b>One</b> of these sheets, suitably com	npleted, should be	e attached to the a	ssessed wor	k of <b>each</b> cand	lidate.				
Unit Title Environmental science				Unit Code	R076	Session	Jan/June/Nov	Year			
Centre Name							Centre Numbe	ər			
Candidate Name				Candidate Nu	mber						
	Intre Name         Indidate Name         Criteria         LO1: Understand that stable ecosystems depend on balanced physical and biological environments         MB1: 1 – 5 marks       MB2: 6 – 10 marks         MB3: 11 – 15 marks       MB3: 11 – 15 marks         Sasic definition of an ecosystem and icomponents of ecosystems stasic explanation of how tasic explanation of how teasiste linkage to the carbon cycle, ogen cycle, and water cycle       • Detailed knowledge of the abiotic and biotic components of ecosystems remain in balance       • Detailed explanation with qualitative data of how ecosystems remain in balance       • Detailed explanation with qualitative data of how ecosystems remain in balance       • Detailed linkage to the carbon cycle, nitrogen cycle, and water cycle       • Detailed linkage to the carbon cycle, nitrogen cycle, and water cycle       • Detailed linkage to the carbo cycle, nitrogen cycle, and water       • Detailed linkage to the carbo cycle, nitrogen cycle, and water         I1 2 3 4 5]       [6 7 8 9 10]       [11 12 13         LO2: Understand the impact of human and natural events       • Limited explanation of how the environment can be affected by human and natural events to the environment and natural events to the environmental consequences       • Detailed linkage of the effect of human and natural events t					Teacher Comments			Mark	Page No	
LO1: Underst	and that stable	ecosystems depend on balanced physi	cal and biolog	ical environme	nts						
MB1: 1 – 5 n	narks	MB2: 6 – 10 marks	М	B3: 11 – 15 mar	ks						
<ul> <li>environment</li> <li>Basic knowledge of the biotic components of eco</li> <li>Basic explanation of he ecosystems remain in bal</li> <li>Basic linkage to the ca</li> </ul>	e abiotic and systems ow lance rbon cycle,	<ul> <li>and environment</li> <li>Detailed knowledge of the abiotic and biotic components of ecosystems</li> <li>Limited explanation with qualitative data of how ecosystems remain in balance</li> <li>Limited linkage to the carbon cycle,</li> </ul>	<ul> <li>ecosystem a</li> <li>Thorough and biotic cc</li> <li>Detailed quantitative remain in ba</li> <li>Detailed li</li> </ul>	and environment h knowledge of the omponents of ecce explanation with data of how ecces lance inkage to the car	ne abiotic osystems systems bon						
				-	13 14 15]						
LC	02: Understan	d the impact of human and natural event	s on the enviro	onment							
MB1: 1 – 5 n	narks	MB2: 6 – 10 marks	м	B3: 11 – 15 mar	ks						
affected by human and na • Limited linkage of the human and natural event environmental consequer • Some understanding o outcomes of the impact o	atural events effects of s to the nces f the f human and	<ul> <li>environment can be affected by human and natural events</li> <li>Detailed linkage of the effect of human and natural events to the environmental consequences</li> <li>Detailed understanding of</li> </ul>	environment of and natural ev • Well justifie human and na environmenta • Thorough of outcomes of t	can be affected by vents ed linkage of the atural events to t I consequences understanding of	oy human effect of he the nan and						
	[1 2 3 4 5]	[6 7 8 9 10]		[11 12	13 14 15]						

	Teacher Comments	Mark	Pag No		
LO3: Understand how physic	cal conditions in the environment are mo	nitored at local and global levels			
MB1: 1 – 5 marks	MB1: 1 – 5 marks MB2: 6 – 10 marks MB3: 11 – 15 marks				
<ul> <li>Lists of techniques and instruments that can be used to monitor physical conditions in the environment at local and global levels</li> <li>Basic description of the consequences to the environment of the conditions monitored</li> </ul>	<ul> <li>Limited description of techniques and instruments that can be used to monitor physical conditions in the environment at local and global levels</li> <li>Limited description of the consequences to the environment of the conditions monitored</li> </ul>				
[1 2 3 4 5]	[6 7 8 9 10]	[11 12 13 14 15]			
LO4: Be able to use star	ndard procedures to monitor physical fac	ctors within the environment			
MB1: 1 – 5 marks	MB2: 6 – 10 marks	MB3: 11 – 15 marks			
<ul> <li>Lists of physical conditions that can be measured to monitor the environment</li> <li>When provided with method and equipment, some support needed to take a series of measurements of physical conditions within an environment</li> <li>Some measurements taken and recorded</li> <li>When provided with mathematical techniques to use, some data processed correctly</li> </ul>	<ul> <li>Limited description of physical conditions that are measured to monitor the environment</li> <li>Independent selection of equipment to take a series of measurements of physical conditions within an environment; little support needed to set up equipment correctly</li> <li>Measurements taken and recorded using an appropriate format</li> <li>Support needed to process data using appropriate mathematical techniques</li> </ul>	<ul> <li>Detailed description of physical conditions that are measured to monitor the environment</li> <li>Independent selection of equipment to take a series of measurements of physical conditions within an environment; equipment set up correctly</li> <li>Measurements taken and recorded to appropriate accuracy and precision using an appropriate format, including use of correct units</li> <li>Data processed accurately using appropriate mathematical techniques to identify trends or patterns</li> </ul>			
[1 2 3 4 5]	[6 7 8 9 10]	[11 12 13 14 15]			

	Teacher Comments	Mark	Page No		
LO5: Be able to use stand	ard procedures to measure the degree o	f pollution in the environment			
MB1: 1 – 5 marks MB2: 6 – 10 marks MB3: 11 – 15 marks					
<ul> <li>When provided with method and equipment, some support needed to set up and take measurements to measure the degree of pollution in an environmental sample</li> <li>Some measurements taken and recorded</li> <li>When provided with mathematical techniques to use, some data processed correctly</li> </ul>	<ul> <li>Independent selection of equipment to carry out tests; little support needed to set up correctly</li> <li>Measurements taken and recorded using an appropriate format</li> <li>Support needed to process data using appropriate mathematical techniques</li> </ul>	<ul> <li>Independent selection of equipment to take measurements; equipment set up correctly;</li> <li>Measurements taken and recorded to appropriate accuracy and precision using an appropriate format, including use of correct units</li> <li>Data processed accurately using appropriate mathematical techniques to identify trends or patterns</li> </ul>			
[1 2 3 4 5]	[6 7 8 9 10]	[11 12 13 14 15]			
LO6: Understan	d how the environment is managed at loo	cal and global levels			
MB1: 1 – 5 marks	MB1: 1 – 5 marks MB2: 6 – 10 marks MB3: 11 – 15 marks				
<ul> <li>Lists measures used to manage and preserve environments</li> <li>Lists measures used to repair the environment</li> </ul>	<ul> <li>Limited description and justification of measures used to manage and preserve environments</li> <li>Limited description of measures used to repair the environment</li> </ul>	<ul> <li>Detailed description and justification of measures used to manage and preserve environments</li> <li>Detailed description of measures used to repair the environment</li> </ul>			
[1 2 3 4 5]	[6 7 8 9 10]	[11 12 13 14 15]			
LO7: Be able to describe the	e purpose and structure of an organisation	on related to the environment			
MB1: 1 – 5 marks	MB2: 6 – 10 marks	MB3: 11 – 15 marks			
<ul> <li>Basic description of the purpose and structure of an organisation related to the environment</li> <li>Information provided is limited. Tutor guidance may be required to find and select appropriate information</li> </ul>	<ul> <li>Detailed description of the purpose and structure of an organisation related to the environment</li> <li>Information provided is detailed.</li> <li>Minimal tutor guidance is required to find and select appropriate information</li> </ul>	<ul> <li>Thorough description of the purpose and structure of an organisation related to the environment</li> <li>Information provided is comprehensive. Research is carried out independently</li> </ul>			
[1 2 3 4 5]	[6 7 8 9 10]	[11 12 13 14 15]			

Criteria						Teacher Comments	Mark	Page No	
LO8: Be	able to res	search career options within an enviro	onme	ntal organis	ation				
MB1: 1 – 5 marks		MB2: 6 – 10 marks		ME	<b>3</b> 3: 11 ·	- 15 marks			
<ul> <li>Lists sources of information career areas within the enviror sector</li> <li>Basic information on career within the environmental secto</li> <li>Basic information about opportunities for career areas v environmental sector</li> </ul>	areas	<ul> <li>Information provided is detailed. Minimal tutor guidance is required to find and select appropriate information on career areas within the environmental sector</li> <li>Detailed information on career areas within the environmental sector</li> <li>Detailed information about opportunities for career areas within the environmental sector</li> </ul>		<ul> <li>Information provided is</li> <li>comprehensive. Research is carried out independently</li> <li>Thorough information on career areas within the environmental sector</li> <li>Thorough information about opportunities for career areas within the environmental sector</li> </ul>					
	1 2 3 4 5]	[6 7 8 9 10	0]			[11 12 13 14 15]			
							То	tal/120	
If this is a re-sit, please tick	Se	ssion and Year of previous submission	Jan /	June 2	0	Please tick to in	ndicate this work has been standardised interna	lly	

Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website (<u>www.ocr.org.uk</u>).

#### 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 120. Enter this total in the relevant box.