

**Unit Title:** Extended Core - Science  
**Level:** Three  
**Credit Value:** 9  
**GLH:**  
**NOCN Unit Code:** RA1/3/TE/002  
**QCA Unit Reference**  
**Grading Descriptors:** 2, 7

This unit has 17 learning outcomes.

<b>LEARNING OUTCOMES</b>	<b>ASSESSMENT CRITERIA</b>
<b>The learner will:</b>	<b>The learner can:</b>
1. Construct a hypothesis to explain phenomena	1.1. Define the terms hypothesis and phenomena 1.2. Construct unaided an hypothesis relevant to observed phenomena
2. "Design surveys, experiment or investigations"	2.1. Plan in outline form, identifying necessary apparatus and controls, a scientific investigation to test a hypothesis 2.2. State how primary and/or secondary data will be obtained
3. Carry out investigative work safely using appropriate methods, controls and replicas	3.1. Use appropriate methods and materials 3.2. Utilise appropriate controls and/or use replicates 3.3. Ensure the investigation follows necessary safety procedure
4. Collate numerical or non-numerical data from a variety of sources	4.1. Record results in a clear and accurate manner 4.2. Present data in forms which show the most information clearly 4.3. Treat the results with the correct statistical test 4.4. Justify the use of any statistical test
5. Interpret results	5.1. Make correct interpretations from results 5.2. Find relationships such as correlations in the results
6. Draw conclusions and make inferences	6.1. Refer to each figure in the results in drawing conclusions 6.2. Identify any ambiguities or assumptions

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<b>LEARNING OUTCOMES</b>	<b>ASSESSMENT CRITERIA</b>
<b>The learner will:</b>	<b>The learner can:</b>
7. Assess the validity of the investigative techniques and the results	7.1. Identify the main sources of experimental error 7.2. Suggest improvements that could be made to the investigative techniques or operating conditions 7.3. Identify factors in the investigation which could invalidate the results
8. Compile a scientific report following accepted procedure	8.1. Organise relevant information and communicate it coherently in writing 8.2. Produce a scientific report following accepted guidelines
9. Use IT facilities to set up a document format of a report	9.1. Set margins, line spacing, justification and orientation as instructed
10. Enter the text for the document and use formatting facilities	10.1. Enter text with no more than 2 data entry errors 10.2. Embolden, italicise and underline specified text 10.3. Alter font name and size as indicated
11. Use document facilities to create tables	11.1. Use tabs and tables to display items aligned in a row
12. Insert graphics into a document	12.1. Insert a picture/diagram into a document and position as appropriate
13. Enter and analyse experimental data using spreadsheets	13.1. Enter the data with no more than two data entry errors 13.2. Analyse the information into individual categories without any mistakes
14. Produce an appropriate graphical representation of the data	14.1. Construct appropriate graphs from the experimental data

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LEARNING OUTCOMES	ASSESSMENT CRITERIA
<b>The learner will:</b>	<b>The learner can:</b>
15. Produce a simple database	15.1. Select relevant data 15.2. Enter the record structure 15.3. Determine the field descriptions 15.4. Enter the data with no more than two errors 15.5. Search on three criteria to select subsets of the data 15.6. Sort the data alphabetically and numerically
16. "Insert information from a spreadsheet, database and graphical representation into a word processed document"	16.1. Use integrated software to collate the different sections 16.2. Present information accurately in an appropriate sequence and layout
17. Save, preview and print a report"	17.1. Assign a file name/directory/drive to a document 17.2. Preview the document 17.3. Print the document, with two copies

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### ASSESSMENT INFORMATION

**Guidance:**

This grid gives details of the assessment activities to be used with the unit attached. Please refer to the NOCN Handbook for definitions of each activity and the expectations for assessment practice and evidence for moderation.

**The assessment activities for this unit are indicated in the table below:**

**Key: P = Prescribed** – this assessment method *must* be used to assess the unit.  
**O = Optional** – this assessment method *could* be used to assess the unit.

Case study		Project	
Written question & answer/test/exam		Role play/simulation	
Essay		Practical demonstration	
Report		Group discussion	
Oral question and answer		Performance/exhibition	
Written description		Production of artefact	
Reflective log / diary		Practice file	

### Signposting Key Skills

This unit offers clear opportunities for learners to provide evidence of achievement in Key Skills achievement in the following skill area/s:

<b>Key Skill</b>		<b>Wider Key Skill</b>	
Communication		Working with others	
Information Technology		Problem solving	
Application of Number		Improving Own Learning and Performance	

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**Accredited Start date:**  
**Accredited End date:**  
**Unit Sector/Subject area:**  
**Grading descriptors:**  
**Availability for Use:**

<b>Purpose and Aim of the Unit</b>	Free Text
<b>Restrictions on the Availability</b>	Free Text or N/A
<b>Additional Assessment Requirements</b>	Free Text or N/A
<b>Details of relationship between the Unit and the NOS</b>	Free Text or N/A
<b>Details of relationship between the Unit and Standards (not NOS)</b>	Free Text or N/A
<b>Endorsement of the Unit by</b>	Free Text or N/A