Essential Skills Wales

Essential Application of Number Skills (EAoNS)

Level 3 Controlled Task

Assessor Pack

Community Safety

Version **2.3**
Sample (Set B)

Assessment requirements

The following is a summary of the Essential Skills Wales (ESW) Controlled Task Conditions. These requirements should be read in conjunction with the relevant **Controlled Task Candidate Pack**. General assessment guidelines applicable to all ESW assessments can be found in the **Essential Skills Wales Suite Qualification Handbook**.

Controlled Task Assessment

Controlled tasks are **summative assessments** measuring subject-specific skills. Candidates will need to show they can utilise these skills in a holistic manner, relevant to real-life circumstances. The assessment outcome is **pass/fail**.

Controlled tasks must be:
- internally assessed, by appropriately qualified staff, using the Mark Scheme provided. Please see section 2.2 of the **Qualification Handbook** for details of staff qualification.
- internally quality assured, by appropriately qualified staff
- externally quality assured/moderated by City & Guilds
- compliant with **Controlled task conditions**.

Controlled task conditions

This controlled task must be completed under the conditions set out below. 'Controlled' relates to all aspects of how the task is administered and assessed.

Candidates should only attempt this controlled task when they have been registered for this qualification and have developed the necessary skills at the required level. Learning development input should be completed before the candidate attempts this controlled task. This controlled task must normally be completed before the confirmatory task is attempted.

Working period

The candidate must complete this controlled task within an 8 week 'working period'. The working period commences on the date the candidate starts working on the task. The working period may be extended only in specific extenuating circumstances or if the academic term does not extend to 8 weeks. Please see section 4.3 of the **Qualification Handbook** for further information.

Working time

The candidate has up to **8 hours in total** to complete this controlled task. This task 'working time' allowance will formally start at the point when a task is first provided to the candidate. The task working time may be extended only in specific extenuating circumstances. Please see section 4.3 of the **Qualification Handbook** for further information.

Supervised conditions

This controlled task must be completed under the following supervised conditions:
- This task is an 'open book' assessment. Candidates may have access to routine resources that might be available in a 'real life' situation, for example: PCs/laptops, tablets, dictionaries, calculators, reference books, relevant class notes and source material approved by their tutor/assessor so long as they are not designed *specifically* to assist with this assessment and do not compromise independent

achievement of the standard. Mobile phones or other transmitting/receiving devices are not permitted. The candidate can access the Internet using supervised facilities.

- The environment within which tasks are completed must be supervised. This supervision must be **continuous** and ensure no interruption and/or undue influence is possible whilst candidates are working on the task. Suitable locations might include a classroom, a library or a workplace as long as an appropriate environment and supervision are maintained. For the avoidance of doubt, this environment does not require formal 'examination' conditions.

- The supervisor must be a reliable, responsible person who is accountable for ensuring adequate supervision and control of the environment are maintained. The supervisor must be present throughout the working time and be able to confirm that each candidate produced all work independently. The supervisor can be the candidate's tutor and/or assessor or another suitable person.

- This controlled task may be completed in one session or split over several sessions, as long as no learning or preparation is provided in between. If not completed in one sitting, the candidate's papers and all materials produced by the candidate must be collected in and stored securely until the next working time session begins. On no account may candidates take any of their work away with them between sessions, for example to work on a task at home.

- The working period and working time taken to complete this controlled task must be monitored and recorded as indicated on the front page of the *Candidate Pack*. The candidate, supervisor, assessor and centre details must be completed, and the declarations must be signed and dated before completed tasks are submitted for assessment.

Assistance and access arrangements

Assessors may provide candidates with the opportunity to clarify task requirements during the working period; however this must not extend to any form of formative feedback. For example, recommending that a candidate should review their calculations would be inappropriate, whereas recommending the candidate re-read a particular section of the task requirements would be acceptable. Please see section 4.6 of the **Qualification Handbook** for further information on access arrangements.

Second and subsequent attempts

A specific controlled task can be attempted only once. However, a candidate may undertake a different controlled task, (either another title from the City & Guilds pre-approved bank or a centre devised assessment that has been approved by City & Guilds) at another time if they do not pass. Wherever the candidate is unsuccessful, they **must** undergo further development in the relevant skill(s) before re-attempting at a later date.

Collaboration

This controlled task requires the candidate to work individually.

Assessment Record

Essential Application of Number Skills at Level 3
Task title: Community Safety

Part 1 (maximum 4 marks)	At least 1 mark for row A required to pass	
The candidate has shown evidence of:	**Mark scheme**	**Row**

planning how to tackle a problem by breaking it down into a series of tasks (N3.1.1b)	**2 marks:** candidate produces a complete plan
	The plan must include:
	    the information to be used from the source materials AND
	    the calculations to be done AND
	    how results for Part 2 and Part 3 will be presented
	
	The structure must be in the form of:
	e.g. a list, table or flow chart
	e.g. a spider diagram with arrows or numbers to show a logical sequence
	Accept a narrative plan with a clear structure to show a logical sequence.
	
	OR
	
	1 mark: candidate shows clear evidence of planning but with up to two errors or omissions
	e.g. a flow chart with one or two action points missing
	e.g. a complete spider diagram with no indication of the order in which action points are to be carried out
	e.g. a list of action points in order, with no indication of a specific method of presentation for one or both parts of the task
	Accept a complete narrative plan with limited structure or a well-structured plan with up to two errors or omissions.
	See an example of a suitable plan at the end of the mark scheme.
	
	Award 0 marks for a plan that is substantially copied from the Candidate Pack.
		A

justifying why methods are appropriate for a task (N3.1.1h)	**2 marks:** candidate chooses suitable methods and justifies choice of **at least two** of their methods e.g. To find the average number of anti-social behaviour incidents per month, I will put the numbers of incidents into a spreadsheet and use an AVERAGE formula to calculate the average for one year group, which I can copy for the other year groups. This is more efficient than using a calculator, and it is simpler to check the answer. e.g. To find the radius of the pie chart, I will rearrange the formula, and then substitute the values. This is quicker than substituting first, and there is less chance of making an error. OR **1 mark:** candidate chooses suitable methods and justifies choice of **one** of their methods	B

Part 2 (maximum 10 marks)		
The candidate has shown evidence of:	**Mark scheme**	**Row**
calculating within and between systems and making accurate comparisons (N3.2j)	**1 mark:** candidate shows a correct process to convert between systems e.g. 5 × 0.3 + 8 × 2.5 ÷ 100 (= 1.7 m) **1 mark:** at least one correct conversion e.g. (18 × 0.3 =) 5.4 (m) e.g. (70 × 0.3 =) 21 (m) e.g. [5 × 0.3 + 8 × 2.5 ÷ 100 =] 1.7 (m) e.g. (11 ÷ 0.3 =) 36.666… (ft for the effective range of the C8 camera)	C
carrying out multi-stage calculations efficiently with numbers of any size (N3.2b)	**1 mark:** candidate shows a correct process to find the height of the triangle e.g. 5.4 – 1.7 (= 3.7 m) e.g. 18 (ft) – 5 (ft) 8 (in) (= 12 ft 4 in) Accept correct height shown in working. **Accept correct use of their answers from row C.**	D

using powers and roots (N3.2c) calculating missing angles and sides in right-angled triangles from known sides and angles (N3.2f)	**1 mark:** candidate shows a correct process to find the required effective range for the camera e.g. $3.7^2 + 21^2 = 454.69$ AND $\sqrt{454.69}$ (= 21.323… m) **1 mark:** correct answer e.g. 21.3 (m) Accept correct rounding to 1 d.p. or more. **Accept correct use of their answers from row D.**	**E**
drawing appropriate conclusions based on findings, making comparisons and giving valid explanations (N3.3.2c)	**1 mark:** candidate chooses a suitable camera based on their answer for the effective range and gives **at least one** valid reason e.g. Camera S7 has an effective range of 25 metres which is more than the required range of 21.3 m. e.g. Camera S7 is the cheapest camera that has sufficient effective range.	**F**
using suitable equipment to measure in a variety of appropriate units (N3.1.2d)	**1 mark:** candidate shows a correct value for the radius of the pie chart in Source 3 e.g. 5.7 ± 0.1 (cm) Accept a correct measurement from the candidate's printed copy.	**G**
rearranging and using formulae, equations and expressions (N3.2o)	**1 mark:** candidate starts a correct process to use the formula e.g. correct rearrangement of the formula $\quad r = \sqrt{\dfrac{\pi t R^2}{\pi T}}$ e.g. correct substitution in the formula $\quad \dfrac{\pi 5.7^2}{\pi r^2} = \dfrac{3688}{5501}$	**H**

| | **1 mark:** candidate shows a complete correct process to find the radius of a pie chart to represent total crime in North Wales in December 2019
e.g. √[π × 5501 × 5.7² ÷ π × 3688] (= 6.961… cm)

1 mark: correct answer
e.g. 7(.0) cm
Correct units required.

Accept correct use of their answer from row G. | |

Part 3 (maximum 19 marks)		
understanding compound measures (N3.1.2h) using compound measures (N3.2d)	**1 mark:** candidate shows a correct process to find a rate of crime per 1000 people (total number of crimes ÷ total population × 1000) e.g. 3688 ÷ 345624 × 1000 (= 10.670… crimes per 1000 people in Cardiff in December 2019) **1 mark:** correct answers for Cardiff AND North Wales in Dec 19 AND Jan 16 i.e. <table><tr><th colspan="3">Crimes per 1000 people</th></tr><tr><td></td><td>Cardiff</td><td>North Wales</td></tr><tr><td>Jan-16</td><td>9.97</td><td>6.49</td></tr><tr><td>Dec-19</td><td>10.67</td><td>8.01</td></tr></table> Accept correct rounding to 1 d.p. or nearest whole number.	J

selecting and using appropriate methods to effectively present and illustrate findings, showing trends and making comparisons, including numerical, graphical and written formats (N3.3.1a) constructing complex tables, charts, graphs and diagrams and labelling with titles, scales, axes and keys appropriate to purpose and audience (N3.3.1c)	**1 mark**: candidate uses an appropriate method of presentation for their results e.g. complex table, comparative/component bar chart, line graph or complex diagram **1 mark:** candidate uses suitable title AND labels with units AND key **1 mark:** candidate populates table/chart/graph or diagram with correct data (± 2 mm tolerance for plots on a hand drawn chart, graph or diagram)	**K**
justifying methods used, highlighting main points of findings and explaining how far results meet purpose (N3.3.2b)	**1 mark:** candidate makes **at least one** valid detailed comment to compare their results e.g. The crime rate per 1000 people was greater in Cardiff than in North Wales in January 2016 and December 2019, but the crime rate in North Wales increased more than in Cardiff in that time period. e.g. In December 2019, there were almost 11 crimes per 1000 people in Cardiff, but only just over 8 crimes per 1000 people in North Wales.	**L**
using at least one large data set of a size appropriate to a planned activity and using this to meet the purpose of the activity (N3.1.2c)	**1 mark:** candidate selects relevant information from the large data sets in Source 5 and Source 6 in a way that suits their purpose e.g. selects correct values for anti-social behaviour to group the data	**M**
grouping data into classes of width appropriate to the data (N3.1.2e)	**2 marks:** candidate correctly groups **all** relevant data into appropriate classes i.e. groups all the numbers of incidents of anti-social behaviour in Cardiff and North Wales by year OR **1 mark:** candidate groups relevant data into classes appropriate to the data, with **no more than two** errors or omissions	**N**

| comparing distributions using measures of average and interquartile range and estimating mean, median and range of grouped data (N3.2n) | **1 mark:** candidate shows a correct process to find an average number of incidents of anti-social behaviour per month
e.g. [726+815+728+738+844+793+956+833+799+845+674+577] ÷ 12 (= 777.33… for Cardiff in 2019)

1 mark: at least 6 correct answers

e.g.<table><tr><th>Year</th><th>Cardiff</th><th>North Wales</th></tr><tr><td>2016</td><td>950.08...</td><td>1637.75</td></tr><tr><td>2017</td><td>1002.5</td><td>1464.75</td></tr><tr><td>2018</td><td>880.08…</td><td>1197.83…</td></tr><tr><td>2019</td><td>777.33…</td><td>1163</td></tr></table>
Accept correct rounding to the nearest whole number. | **P** |
| working out proportional change (N3.2m)

carrying out multi-stage calculations efficiently with numbers of any size (N3.2b) | **1 mark:** candidate shows a correct process to calculate a percentage change in the monthly average number of incidents of anti-social behaviour
(difference ÷ original × 100)
e.g. [777 − 950] ÷ 950 × 100 (= −18.210…% for Cardiff)
e.g. [1163 − 1638] ÷ 1638 × 100 (= −28.998…% for Cardiff)

1 mark: corrects answer for Cardiff AND North Wales
e.g. −18% (for Cardiff) AND −29% (for North Wales)

Accept correct rounding to 1 d.p. or 2 d.p.

Accept correct use of their answers from row P. | **Q** |

selecting and using appropriate methods to effectively present and illustrate findings, showing trends and making comparisons, including numerical, graphical and written formats (N3.3.1a) constructing complex tables, charts, graphs and diagrams and labelling with titles, scales, axes and keys appropriate to purpose and audience (N3.3.1c)	**1 mark:** candidate uses an appropriate method of presentation for their results for Part 3, using a different method to the one used before e.g. complex table, comparative/component bar chart, line graph or complex diagram. **1 mark:** candidate uses suitable title AND labels with units AND key **1 mark:** candidate populates table/chart/graph or diagram with correct data (± 2 mm tolerance for plots on a hand drawn chart, graph or diagram)	**R**
drawing appropriate conclusions based on findings, making comparisons and giving valid explanations (N3.3.2c) **S**	**1 mark:** candidate makes **at least one** valid detailed comment to compare their results e.g. The trend in the mean monthly number of incidents of anti-social behaviour is generally decreasing in both Cardiff and North Wales, although there was a slight increase between 2016 and 2017 in Cardiff. e.g. On average, there were more incidents of anti-social behaviour per month in North Wales than in Cardiff in every year between 2016 and 2019 (although the population of North Wales is greater than Cardiff). e.g. The mean number of incidents of anti-social behaviour per month in North Wales decreased by 29%, which is more than the 18% decrease in Cardiff.	**S**
justifying choice of methods of presentation (N3.3.1d)	**1 mark:** candidate justifies their choice for **at least one** method of presentation e.g. I presented the monthly average number of incidents of anti-social behaviour as a line graph, as it clearly shows the trend between 2016 and 2019 and allows a visual comparison of the results for Cardiff and North Wales.	**T**
describing how possible sources of error might have affected results (N3.3.2d)	**1 mark:** candidate makes **at least one** valid comment explaining how possible sources of error might have affected their results e.g. The results for the number of crimes per 1000 population were based on estimated population figures. The same value was used for both January 2016 and December 2019. If the actual population was different, the results would be different. e.g. The comparison of the number of crimes per 1000 people was based on the values for just two months. These may not be representative of the numbers of incidents in other months.	**U**

Example of a plan for rows A and B

Community Safety Task Plan

Part 2

Step	Action
1	Convert distances from feet and inches to metres (Source 1) to choose a camera with sufficient range. The range of cameras in Source 2 is shown in metres, so I could convert them to feet, but it is simpler to do calculations of metric than imperial measures.
2	Calculate height of triangle (Source 1).
3	Calculate length of sloping side of triangle – two sides of right-angled triangle are known so use Pythagoras to find unknown side. I could make a scale drawing and measure the unknown side, but that would take longer and not be as accurate.
4	Choose the most suitable camera, i.e. cheapest with sufficient range (Source 2).
5	Measure radius of pie chart of crimes in Cardiff (Source 3).
6	Find total number of crimes in Cardiff and North Wales in December 2019 (Sources 5 and 6).
7	Use formula (Source 4) to calculate radius of a pie chart to show crimes in North Wales in December 2019.

Part 3

Step	Action
1	Calculate total crimes per 1000 people in Cardiff and North Wales in January 2016 and December 2019.
2	Present findings in a table.
3	Compare results and make a comment.
4	Group numbers of anti-social behaviour incidents in Cardiff and North Wales from 2016 to 2019 by year.
5	Calculate monthly average ASB incidents for every year 2016-19.
6	Calculate percentage change in average monthly ASB incidents from 2016 to 2019.
7	Present results on a dual bar chart.
8	Compare results and make a comment.
9	Justify methods of presentation.
10	Comment on how errors could have affected results.