Chief Examiner and Chief Moderator Report

T Level Technical Qualification in Science (Level 3)

QN:603/6989/9

Summer 2025 – occupational specialism (OS) Laboratory Sciences

Introduction

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Assessment dates: **27 March 2025 to 16 May 2025**

Paper number: **P002821, P002822 and P002823**

This report contains information in relation to the externally assessed component provided by the chief examiner and chief moderator, with an emphasis on the standard of student work within this assessment.

The report is written for providers, with the aim of highlighting how students have performed generally, as well as any areas where further development or guidance may be required to support preparation for future opportunities.

Key points:

- grade boundaries
- standard of student work
- evidence creation
- responses to the external assessment tasks
- administering the external assessment.

It is important to note that students should not sit this external assessment until they have received the relevant teaching of the qualification in relation to this component.

Grade boundaries

Grade boundaries for the series are:

	Overall
Max	408
Distinction	312
Merit	282
Pass	153

Grade boundaries are the lowest mark with which a grade is achieved.

For further detail on how raw marks are scaled and the aggregation of the OS element, please refer to the Qualification Specification.

Administering the external assessment

The external assessment is invigilated and must be conducted in line with our [Regulations for the Conduct of External Assessment] document. Students may require additional pre-release material to complete the tasks. These must be provided to students in line with our regulations.

Students must be given the resources to carry out the tasks and these are highlighted within the [Qualification Specific Instructions for Delivery] (QSID) document.

Standard of student work

External assessment

Assignment 1

Assignment 1 is marked independently by NCFE assessors. The assignment scenario for this series was to research and develop a Standard Operating Procedure (SOP) that would enable a research lab to determine the conductivity level of water in a river and, with that, determine the level of pollution.

In task 1, the students are asked to write a literature review and select literature based on its reliability, scientific content, relevance, and other contributing factors such as the author, bias, and economic considerations. They should then select literature to use in their SOP, ready for task 2. It was good to see a noticeable improvement in the lower end of the results this year, with students understanding the requirement for an adequate, successful literature review. The students referencing has improved this year and the reviews were presented in a neat and organised format. Students were almost always able to describe literature based on several factors, although some are still putting too much weight on the date of publication and the URL, rather than author and whether or not the source had been peer-reviewed. At the higher end of grades, there was also an improvement. There were more students explaining, for example, the reasons a peer-reviewed article makes it more reliable or why an author at a university is more reliable than a newspaper article. There was also an attempt by some students to adapt the literature to make it more suitable to their own SOP, for example, taking into account cost and practicality. There are still very few students that are able to argue different sources within the same paragraph; each source is still presented as stand-alone. More students would access a higher mark in task 1 if they were able to do that.

In summary, the format of assignment 1 has followed the same format as in previous series, with a different context of course. There was an improvement in grade overall which I believe is due to an improvement in student performance and improvement in students following the required format and guidelines. It has been pleasing to see this improvement in both the content and presentation of work by the students.

Assignment 3

In assignment 3, students must analyse data and discuss its reliability, points of and sources of error, how to reduce the error, and then finally a data task. Following the theme of the other assignments, the brief followed the conductivity theme. In this assignment, river water has been sampled, and students must comment on the data showing the pollution of the river water at three different sites over several years, which has been tested by dipstick sampling. This year, students were given three sets of data rather than one, substantially more than in previous years. The data presented was simpler, but students did have to spend the time analysing each piece of data, so they did well.

Overall, tasks were answered to an adequate standard by students, showing some relevant knowledge in context, but to improve further, students should focus on developing their explanations and their balancing of arguments.

Moderated Assessments

Assignment 2 is internally assessed by provider appointed assessors and externally moderated by NCFE appointed moderators. The assignment scenario for this series concerned the quantitative and qualitative determination of pollutants in different river water samples. SOPS that a laboratory may undertake to determine the level and type of pollution were provided in two parts, each to be completed in a 3-hour session. Students were tasked with determining the conductivity (ionic content) within three different river water samples in part (a) and determining the pollutants in a fourth river water sample using chromatography in part (b).

In task 1 (a) of part (a), students were able to follow the SOP to measure the conductivity of three different river water samples and of “pure” water to calibrate their mean values. It was good to see that students were selecting and using personal protective equipment (PPE), handling chemicals and equipment safely, and working in an organised workspace. Where samples were in bottles, stoppers were almost always replaced after use and spillages were cleared up swiftly. Assessors awarded most students these basic observation criteria, and this could clearly be supported in audio-visual evidence provided. Use of the measuring cylinder to measure 50 cm^3 of water was surprisingly inconsistent across this year’s cohort of students – whilst some did take eye level measurements on a level surface, a number of students did look down at the measuring cylinder to take their volume reading, whilst some others would pour the water into the measuring cylinder whilst holding it. A visual check of the conductivity meter was often not overtly seen in video recordings, despite almost every student being awarded this – providers are advised to encourage students to always check any equipment that they may be about to use in practical work. This will be an aspect which will be scrutinised more closely by the Moderation team in the future. A very wide range of conductivity meters were seen in use – some models were able to allow collection of data straight into a spreadsheet. Whilst the model of meter made little actual difference to the investigation, student familiarity with the operation was variable. Some students did not change the unit setting on the meter and obtained some unlikely values. Almost every student was seen washing the conductivity meter probe appropriately between sample readings, which was good. Some dried the probe with a paper towel, which was appropriate given that this may dilute the river sample. There were some that used the measuring cylinder to measure out each river sample, despite there being no instruction to do so. This increased the chances of dilution or contamination. Data collected tended to be very good and, as expected, but there were some students that did not recognise and exclude anomalous data within their repeats for a specific river sample, or worse, that the ‘pure’ water was significantly outside of the range of 0.5-3.0 µS/cm specified by the assignment. It was rarer still for a student that did recognise the issue to try to gather replacement data. It was rare to observe any student having trouble in the set up and operation of the conductivity meter that they were provided with, but as indicated, familiarity with the equipment is needed to ensure that students can attend to issues themselves. In general, students were often observed working autonomously, with little, if any, input from supervisors.

In task 1 (b) of part (a), students were expected to calculate a mean and create a bar chart to determine which sample was polluted. All students recorded their data in a table of their own design. This was variable. Most students used a spreadsheet, which is encouraged but would need to consider how to format the table (such as gridlines) to make it legible, and to avoid ‘floating’ headings or data. Representing units accurately posed the biggest challenge when using a spreadsheet, particularly the μ prefix, which could cost placement in the top band if not addressed. As conductivity readings for samples were in the 100s, inconsistency with significant figures or decimal places was rarely an issue. This was more notable with distilled water however, where readings with decimal places were expected and was sometimes recorded to the nearest integer. It was rare to see means incorrectly calculated, with or without the assistance of a spreadsheet. However, the adjustment of the conductivity mean with the mean for distilled water was forgotten by a significant number of students. Whilst this would generally have a minor effect on any of the expected mean conductivities, this was an instruction that students were expected to perform and was one of the Band 1 descriptors (‘subtract…. mean conductivity of distilled water …may be omitted’). Although there was no intentional trend, student results would have shown that the conductivity increased from sample A to C, with C being above 550 µS/cm. Anomalies were rare, but as indicated few students seemed to be looking for them or dealing with them.
Graphs were almost always created using Excel, with students from specific providers either adopting this or hand drawing them – there are pros and cons to both. The main advantage of the spreadsheet is that it allows students to instantly create a graph, but the downside is whether the student is really in control:

- Excel graphs presented were often far too small (about the same size as the table)
- Excel graphs were more likely to have omitted a title and/or labelled axes, and sometimes may simply have been due to 'cropping' of text boxes, which the student is expected to address
- units were rarely correctly presented
- bar charts are most readily suggested by Excel – for this task, it proved an advantage
- students needed to be careful which data Excel had selected to plot. All too often all data was presented rather than simply the adjusted mean for each sample. It was common to see 9-12 bars as opposed to only 3
- scales were not entirely appropriate – most bar charts defaulted to increments of 200 µS/cm, so accuracy of the plot could not be verified. Students should not assume that because Excel has created the plot that assessors and moderators will simply accept this as being accurate
- a horizontal threshold line at 550 µS/cm was rarely seen on the bar chart. Students that did have 'manually' inserted this with varying degrees of accuracy.

Whether a threshold line was drawn (or even a bar chart at all), many students were able to look at their data and comment correctly upon which samples were polluted.

In task 1 (a) of part (b), students demonstrated again that they worked safely, with basics of PPE, handling of resources and organisation easily corroborated by video evidence. The task may have seemed deceptively easy, as there was little in the way of equipment measurements, and students at this level and on this qualification should be more than familiar with the accurate use of a ruler. Some aspects which were observed that were very good were: accurate line drawings on the chromatography paper; precise and careful spotting of the chromatography paper; handling the chromatogram at the edges; the use of tweezers for handling the paper; replacement of the chromatography tank lid; the use of a stop clock for timings; the use of a clamp or 'washing line' in a fume cupboard for chromatogram development. Some efforts and techniques that students applied to ensure that the paper was dry before it moved on to the next stage of the SOP showed patience and consistency. However, there could also be areas where care and accuracy were overlooked:

- inconsistent eye level use of a measuring cylinder (see also task 1(a) under part (a))
- spotting of chromatography paper so it was overloaded or not repeated
- handling of the paper before, during and after the experiment without tweezers and often across the face of the paper
- unsteady placement of the paper cylinder within the chromatography tank and its removal
- movement or disturbance of the chromatography tank during the experiment
- omitting to draw in the solvent front line on the chromatogram whilst wet
- spraying ninhydrin on the chromatogram whilst being held
- minimal time allowed for drying (for example: between repeat spotting, before penciling in the solvent front, before and after ninhydrin spraying).

On the last point, not allowing adequate drying time was the prime reason that a few students ripped the chromatography paper. The chromatogram was often very indicative of how well students had accomplished the task.

In task 1 (b) of part (b), students were expected to analyse a supplied chromatogram, with a measurement scale, present in the assignment. Given that students potentially had to wait up to 90 minutes for their own chromatogram to be run in task 1 (a), there was an excellent opportunity to use the time efficiently by carrying out Task 1 (b) in the meantime – it was unclear whether this was the case or not. It was not always clear that the chromatogram in task 1 (b) was actually analysed at all by some students – such was the difference from what was expected (i.e. one spot rather than two spots), it is supposed that some students had attempted to analyse their own chromatogram. Even students that did read and follow the instructions to analyse the supplied chromatogram still made errors. Measurements taken from the chromatogram were normally accurately done by students and well within tolerance, but a very common error was not to subtract the base line from the distance measured for each spot (and / or the solvent front). Disappointingly, few students tabulated their measurements, as shown in the indicative content of the Mark Scheme – this meant that the 'recorded clearly' descriptors under Band 4 could not fully be met, and did miss a potential efficiency to use the functionality of Excel to calculate means and Rf values. Nevertheless, whichever way students chose to present data, calculations for means and Rf values were typically correct. Following on from this, identifications of pesticides and the farms from which they may have come from were normally consistent and justifiable. Some students unfortunately also decided to take things a step further and calculate a mean Rf of the two spots and identify this 'fictitious' value – this did undermine whether they understood the point and purpose of chromatography.

Evidence creation

External assessment

Assignment 1

Students are required to produce a document for task 1. Some students choose to upload both a table template of their notes and their written word document which is acceptable, as is just the finished word document. In task 2, students must upload the word document. In task 3, students should use the risk assessment matrix provided.

Uploaded work was excellent this year, there was very little missing evidence for task 1.

Assignment 3

Students are required to upload a word document of all five tasks. Tasks 1 - 4 were uploaded with no problems. Task 5 required students to work from an Excel document, and students could either upload the Excel spreadsheet or transfer the work to a word document. In some cases, students did not upload all of their working to the word document and then did not upload the Excel sheet. In some other cases, task 5 was missing completely as they had not transferred it to a word document and the provider did not upload the Excel document as it was not an essential document to upload. In this case, it was difficult to verify some of the students work or some work was missing, potentially causing a lower mark for the student. I would suggest that if there is any rough working from a student, it should be uploaded whether or not it is required.

Moderated assessments

The evidence required from students and providers for Assignment 2 was indicated within the T Level student evidence upload checklist document. For this specific series, this indicated the following evidence was required for part (a) and for Part (b):

- audio-visual recordings
- photographic evidence (optional)
- the student's tables of results and calculations
- bar chart of adjusted mean conductivity readings for river water samples
- written conclusions and identifications
- completed assessor observation checklist
- assessor commentary to support student practical performance
- assessor marks and annotated Mark Scheme
- signed student declaration of authenticity.

The student evidence checklist is a critical document intended to support Providers with understanding what evidence is expected for each task within the moderated assignments for the OS. It must be referred to for each series as the Assignment task demands change and must be used to ensure the correct evidence forms are supplied to NCFE. Whilst additional or alternative evidence is always welcome from providers, this list represents the essential and minimum expectation to be received by NCFE Moderators. For example, video footage has been a requirement for the last two years for this assignment, as this is required to support the marks that the assessor is proposing. This evidence form also allows assessors to reflect upon and verify observations made, which can be challenging under assessment conditions. Most providers have taken this into account and factored this into their preparations for controlled assessment. Audio-visual recordings will continue to provide an important and mandatory form of evidence in future Assignment 2 practical tasks, particularly for the assertion of effective and accurate scientific techniques. Video recordings were found to have been of a much-improved quality this year and the efforts (and lengths) that providers have gone to in their production of this evidence has been recognised and much appreciated by the Moderation team. Videos supplied were generally well framed and focused upon the individual student and aspect of interest. This was particularly required for the fine detail in some tasks, such as eye level volume measurements and accuracy of chromatography paper spotting. Ideally, videos should be edited to show a specific feature of performance or time codes supplied for specific evidence – many providers have done so and are thanked for this. However, some clips are now a little too concise and did not start and finish appropriately for the aspect of interest to be observed in full. A small minority of providers are supplying hours of recorded laboratory time which created upload / download delays for themselves and NCFE. There were fewer instances of video clips which were not suitable (i.e. field of view obscured). Most video recordings are correctly upon the individual, and it is good practice to have the student's name and NCFE registration number on display within the video. However, a few providers are providing one recording of the whole group. This does not serve any student well. Firstly, the student being moderated may not be readily identified by the moderator. Secondly, the actions of some students will be indistinct from a distance or performed out of shot. Inevitably, not everything can, or can be, expected to be captured on video, so the assessor's commentary is still critical evidence and indeed is required to offer clarification where it is needed.

For task 1 (a) in part (a) and (b), assessors were able to use and apply the observation checklist well to the assessment of practical work. It was again pleasing to see this being recognised by many providers as a vital form of evidence, completed fully with comments, as opposed to simply ticking the sheet or being used as a 'guide'. There were some excellent commentaries or evidence records being supplied by some providers – these resemble the best practice shown in last year's training material, where a photo or image from the video is used alongside the commentary to illustrate how a criteria is met.
The other component of the practical assessment for this assignment requires assessors to identify a band of performance and a mark within that band for the student. Most assessors correctly supplied a commentary (as required by the evidence upload list) to explain how they had arrived at their decision. As was indicated last year, assessors that were unable to provide a full justification for their marking were more likely to have their mark adjusted. Assessor commentaries should use their observations to match against the band descriptors and justify their decision, for example: has the student shown autonomy and how was this demonstrated? Was any support given and what was the nature of that support? Which SOP instructions have not been followed? In arriving at the mark within the band, assessors should consider whether there are any reasons to award a lower mark (for example, was the conductivity meter probe washed every time, most of the time, or occasionally between readings) and it is an expectation that commentaries will fully describe weaknesses in performance as well as aspects that have gone well. Assessors must provide their justification of the mark awarded, as the rationale was frequently omitted and therefore is more susceptible to change through moderation.

For task 1 (b) in part (a) and (b), virtually all students were able to present and process data.
For part (a), there are several factors that need to be considered – the accuracy and reliability of the data collected, the clarity of its presentation, the processing of the data, the graph presented and the conclusion. As has been indicated last year, the use of an Excel spreadsheet could enhance or detract

from this. In its favour, this helped to organise student data, calculate means, create a bar chart and allows an assessor or moderator an easy means of verification. This is acceptable practice and is encouraged, as students need to be able to use mathematical and processing tools to work accurately and efficiently with a scientific workplace. Students writing by hand, using a word document or simply inputting the answers from their calculations into a spreadsheet, may be putting themselves at a disadvantage in terms of accuracy and what they can achieve in the available time. The use of a spreadsheet needs to be treated with caution however, as it sometimes led to complacency, over-reliance and unsuitable usage. This was commonly where students had allowed Excel to suggest the bar chart, with decisions regarding size of the chart, scale and the data selected for presentation all being taken out of their hands. This is less of an issue for students that had hand drawn the bar chart and generally scored highly if the data was good and processed correctly. A conductivity threshold line of 550 µS/cm across the bars was common, but not always seen. This indicates that this is not standard practice for some students yet was an indicator within Band 4. The absence of the line tended to be more associated with spreadsheet generated bar charts. Whether this was present or not, students had relatively little trouble in identifying which rivers were polluted and which were not.

For part (b), evidence of chromatogram analysis could be disparate. Some providers did provide images of their student's chromatograms. These could be variable in quality, but were not required evidence that students were to be assessed upon. However, the level of analysis that some students had clearly applied to their chromatogram was very good. The analysis of the supplied chromatogram in the assignment which was required was more variable, however. Tabulation of measurements was not commonplace, and often working and calculations were done on or around the supplied chromatogram, which gave an unprofessional impression. Students should be advised of the importance of clear working and of clear presentation, with units, in all aspects of their work.

Responses to the external assessment tasks

Assignment 1

Task 1 – It was good to see a noticeable improvement in the lower end of the results this year, with students understanding the requirement for an adequate successful literature review. The students' referencing has improved this year, and the reviews were presented in a neat and organised format. Students were almost always able to describe literature based on several factors, although some are still putting too much weight on the date of publication and the URL rather than author and whether or not the source had been peer-reviewed. At the higher end of grades, there was also an improvement. There were more students explaining, for example, the reasons a peer-reviewed article makes it more reliable or why an author at a university is more reliable than a newspaper article. There was also an attempt by some students to adapt the literature to make it more suitable to their own SOP, for example taking into account cost and practicality. There are still very few students that are able to argue different sources within the same paragraph; each source is still presented as stand-alone. More students would access a higher mark in task 1 if they were able to do that.

Task 2 – Students are asked to write a SOP considering the hypothesis, equipment, working safely, the method and results analysis. On the whole, students performed more consistently in this task and scored higher overall. Hypotheses that scored the highest grades were able to consider variables as well as explain soundly how a conductivity meter could be used and a reasonable prediction of the results. Students gave good equipment lists, as this was a relatively simple procedure, students that scored highly were able to give a full list of equipment with specifics, such as suitable sizes of equipment. Students working safely has hugely improved, but there are still instances of students not giving this its own section as they do the rest of the SOP or missing it completely. It is not a risk assessment, rather an indication of general considerations for the task. Students gave a good attempt at a method, with most students understanding what is required to get valid results. The methods of analysis was not particularly well answered by students. Students were told in the brief to give a detailed explanation of how to calculate the mean, so simply stating to calculate the mean did not get any credit. Most students were not able to suggest to subtract distilled water from the values and so many did not score past Band 2 in this section.

Task 3 – Students were asked to complete a risk assessment for the SOP that they had produced. Most students were able to describe the risks and how to mitigate the risk, with some awareness of hierarchy. However, in a lot of cases the risks were not explained. Some students gave an excellent example of mitigation, but not the risk itself. Students need to improve in their understanding of hierarchy by carefully considering which risk poses more of a danger in comparison to another. They should also take care when calculating the overall risk.

Assignment 2

Task 1 (a) part (a)

Generally, students gained most or all the criteria marks on the observation checklist, so scores were typically in the range of 9 to 11 marks. Organisation, handling of equipment and chemicals, and the use of appropriate PPE were areas where students would typically always score. The areas where students tended to lose marks were the checking of the conductivity meter and once or twice within the effective performance of scientific techniques for submerging the probe to the correct point. Students were normally awarded an appropriately commensurate band based mark by the assessor for following the SOP. Assessor commentaries typically indicate that the procedure was followed fully, correctly and independently, which placed most performances at a high Band 3 or Band 4 standard. Where observation commentaries or video evidence suggested weaker performance, this was most frequently for flaws in measuring the volume of water in a measuring cylinder, with students not doing this at eye level. There was generally good agreement with assessor marks. Moderation of marks tended to occur where there was clear evidence of not following the SOP in video evidence, such as not washing the probe between samples, or for incorrect use of the measuring cylinder. Occasionally, a student would be placed incorrectly in Band 4 because the assessor considered that the student had shown autonomy and followed instructions. However, accuracy must also be a key aspect of this judgement. Assessors should reflect upon how accurate and reliable the conductivity readings were. For instance, the assignment indicated that deionised / distilled water should be 0.5 – 3.0 µS/cm, but it was not uncommon to see readings outside of this range. For the ‘river water samples’, only sample C should have an average conductivity reading above the pollution threshold. In respect of this practical, students need more opportunities to use the conductivity meters that they have access to and more practice with measuring volumes from equipment.

Task 1 (b) part (a)

There was a range of marks awarded to students for their data analysis. Generally, data was reliable, and means were calculated correctly, often with the assistance of a spreadsheet formula. However, one aspect that assessors correctly gauged that the adjustment of the mean conductivity reading for each sample had to be adjusted and was often used to distinguish between higher and lower bands. Graph work was more straight forward and obvious for the data set. Using an Excel spreadsheet offered some timesaving and accuracy to students but could often work against them in some way and accounted for lower band placements. Those students that opted to hand draw their graphs were more prone to human error but usually made better judgements on presentation. This would be on size and scale, correct units and the inclusion of a horizontal pollution threshold line at 550 µS/cm, which would lead towards Band 3 or above. Typical issues seen in spreadsheet graphs were:

- small charts with scale intervals which were too wide for example every 200 µS/cm
- incorrect units (micro was a difficult symbol to represent)
- all data not just means being plotted
- the threshold line not being superimposed at the correct position.

Conclusions tended to be correct, irrespective of the accuracy of data processing.

Task 1(a) part (b)

Again, students gained most or all the criteria marks on the observation checklist, so scores were typically in the range of 9 to 11 marks. Organisation, handling of equipment and chemicals, and the use of appropriate PPE were areas where students would typically always score. Areas where students tended to lose these marks were within the effective performance of scientific techniques. Student skill in spotting the chromatography paper with a capillary tube could be variable with some common issues being heavy loading, no drying time between repeats or no repeats at all. Assessor commentaries typically indicate that the SOP was followed fully, correctly and independently and so placed most performances at a high Band 3 or Band 4 standard. It was common for assessor's marks to be moderated if there was contradictory evidence from video footage, however. Some issues observed were:

- set up of the chromatography tank with 50 cm^3 of the solvent
- not using provided equipment such as the measuring cylinder or the tweezers
- not handling the chromatography paper only by the edge
- adjusting the chromatography paper in the tank
- moving the chromatography tank during the experiment
- holding the chromatography paper whilst spraying with ninhydrin rather than using a clamp or similar.

Chromatograms seen could also be variable, often with large spots, with trailing tails and leaning. In respect of this practical, some students appeared to be more practiced than others, but students need more opportunities at refining their chromatography preparation and techniques.

Task 1 (b) part (b)

A range of bands were awarded for this task, which was commensurate with the variety of analysis and conclusions seen. In general, there was good recognition by assessors in terms of the accuracy, processing and identifications expected, which has been discussed previously. However, there was some variance in what different assessors believed was acceptable in terms of clearly presented data and working for the chromatogram. As per the Mark Scheme, students should be expected to tabulate their measurements to show clear presentation (and should be a standard expectation), but many simply focused upon determining the Rf values and matching it to a pesticide.

Assignment 3

Task 1 – Students must comment on the reliability of the data. Students have improved, with less talking about error and types of error which has been a common mistake previous. To improve further, more students should comment on both strengths and weaknesses of the reliability rather than just one or the other.

Task 2 – Students must identify and explain error in the data. This was not well answered on the whole. Most students were limited to a lower marking band as they failed to correct explain the type of error, although many identified the errors in the data correctly.

Tasks 3 and 4 – Students must explain potential causes or error followed by ways to reduce the error. Many students discussed calibration of dipsticks, suggesting they misunderstood how dipsticks are used and that they are single use. Despite this, many still gave valid suggestions but could have improved their reasoning for suggesting whether it was likely or unlikely that they were the causes of specific errors.

Task 5 – Overall poorly answered. Students were asked to calculate means, standard deviations and plot a line graph with error bars. Most were able to calculate some means correctly and plot some points correctly, but often were not able to successfully calculate standard deviation and therefore error bars. Some students were able to label both axes correctly but many students did not draw a line of best fit and instead had a dot-to-dot line. Extrapolation of unknown values was answered correctly in some cases, but many students did not extend their line of best fit to calculate one of the unknown values.

Document information

The T Level Technical Qualification is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.

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