



<b>Unit title</b>	Construction Mathematics
<b>Guided learning hours</b>	60
<b>Number of lessons</b>	30
<b>Duration of lessons</b>	2 hours
<b>Links to other units</b>	
<ul style="list-style-type: none"> <li>• Unit 10: Surveying in Construction</li> <li>• Unit 12: Building Surveying in Construction</li> <li>• Unit 13: Site Engineering for Construction</li> <li>• Unit 14: Measurement Techniques in Construction</li> <li>• Unit 17: Further Mathematics in Construction</li> <li>• Unit 20: Quantity Surveying</li> <li>• Unit 23: Construction in Civil Engineering</li> </ul>	

Key to learning opportunities			
<b>AW</b>	Assignment writing	<b>RS</b>	Revision session
<b>GS</b>	Guest speaker	<b>V</b>	Visit
<b>IS</b>	Independent study	<b>GW</b>	Group Work

Lesson	Topic	Lesson type	Suggested activities	Classroom resources
1	Unit introduction	GW	<ul style="list-style-type: none"> <li>• <b>Introduce the unit:</b> outline the nature of the topics, and the Pearson Set Assignments that learners will be expected to complete for this unit.</li> <li>• <b>Individual/pair/group activity:</b> learners work individually, in pairs or in small groups to demonstrate any prior knowledge in the subject area.</li> </ul>	Paper and pens Interactive board



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
<b>Learning aim A: Understand basic underpinning mathematical techniques and methods to manipulate and/or solve formulae, equations and algebraic expressions</b>				
2	<b>A1:</b> Calculator Functions	GW	<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> introduction to calculator functions.</li> <li>• <b>Pair activity:</b> as a means of checking prior knowledge, pairs complete a tutor-created worksheet. To engage learners, you could give them differentiated worksheets of increasing demand.</li> <li>• <b>Whole class activity:</b> learners discuss the results of their calculations and issues they have faced.</li> <li>• <b>Tutor presentation:</b> introduction to standard form.</li> <li>• <b>Individual/small group activity:</b> give learners worksheets to complete and present answers in standard form.</li> <li>• <b>Plenary:</b> discuss any difficulties that were experienced and review understanding of the processes.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples
3	<b>A2:</b> Mathematical techniques including issues or rounding/accuracy	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review understanding of how to use calculators to complete a range of mathematical operations.</li> <li>• <b>Tutor presentation:</b> introduce learners to methods of rearranging and manipulating equations including the use of factorisation.</li> <li>• <b>Individual activity:</b> learners work through a series of construction problems involving manipulation of equations and substitution of values. They peer-assess the results.</li> <li>• <b>Plenary:</b> discuss any difficulties that were experienced and review understanding of the processes.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples
4	<b>A2:</b> Mathematical techniques including issues or rounding/accuracy	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> recap the methods of manipulating equations.</li> <li>• <b>Tutor presentation:</b> demonstrate how to present values to given numbers of decimal places and significant figures.</li> <li>• <b>Individual activity:</b> carry out a range of simple calculations and present answers to given levels of precision.</li> </ul>	Calculators Tutor-created worksheet



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
			<ul style="list-style-type: none"> <li>• <b>Tutor-led discussion:</b> review application of significant figures before introducing learners to approaches that can be taken to approximate values.</li> <li>• <b>Individual activity:</b> learners complete a number of questions to find approximate answers to construction problems.</li> <li>• <b>Plenary:</b> review the use of significant figures, decimal places and approximation, and also resolve any issues learners may have encountered.</li> </ul>	Projector or interactive board to demonstrate examples
5	<b>A2:</b> Mathematical techniques including issues or rounding/accuracy	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review understanding of the use of approximation and significant figures in calculations.</li> <li>• <b>Tutor presentation:</b> introduce learners to errors that can be caused by truncating values in calculations.</li> <li>• <b>Individual activity:</b> learners work through worksheets with a series of construction problems where they compare using truncated values and accurate values.</li> <li>• <b>Plenary:</b> discuss the implication for construction projects of using truncated values including over and under estimation of values.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples
6	<b>A2:</b> Mathematical techniques including issues or rounding/accuracy	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> recap the methods of manipulating equations to change the subject of equation.</li> <li>• <b>Tutor presentation:</b> demonstrate how to manipulate more complex equations including those with exponents, roots and trigonometric identities.</li> <li>• <b>Individual activity:</b> learners complete worksheets with a range of functions to rearrange and solve equations.</li> <li>• <b>Tutor-led discussion:</b> review understanding of how to transpose and manipulate equations and formulae.</li> <li>• <b>Individual activity:</b> learners identify areas they need to understand better.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
			<ul style="list-style-type: none"> <li>● <b>Plenary:</b> review common difficulties and misconceptions that learners have, providing additional support as required.</li> </ul>	
7	<b>A3:</b> Algebraic techniques and expressions	IS	<ul style="list-style-type: none"> <li>● <b>Lead-in:</b> discuss with learners their prior experience of using algebraic techniques before moving on to discuss the types of construction problems that learners might need to complete.</li> <li>● <b>Tutor presentation:</b> introduce learners to linear equations, using graphical techniques to present equations of straight lines in graphical form and how to derive the equation of lines.</li> <li>● <b>Individual activity:</b> learners work through worksheets to plot and interpret graphs of straight lines. They peer assess solutions.</li> <li>● <b>Tutor presentation:</b> introduce learners to simultaneous linear equations and approaches to solve them.</li> <li>● <b>Individual activity:</b> learners work through worksheets to solve pairs of simultaneous equations.</li> <li>● <b>Plenary:</b> discuss any difficulties that were experienced and review understanding of the processes.</li> </ul>	Calculators Graph paper Tutor-created worksheet Projector or interactive board to demonstrate examples
8	<b>A3:</b> Algebraic techniques and expressions	IS	<ul style="list-style-type: none"> <li>● <b>Lead-in:</b> discuss with learners prior experience of using algebraic techniques before moving on to discuss the types of construction problems they might need to complete.</li> <li>● <b>Tutor presentation:</b> introduce learners to methods of solving quadratic equations. Discuss approaches that can be used before introducing the use of the quadratic formula.</li> <li>● <b>Individual activity:</b> learners practise using the quadratic formula to find the roots of a range of equations using worksheets.</li> <li>● <b>Plenary:</b> discuss any difficulties that were experienced and review understanding of the processes.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
9	<b>A3:</b> Algebraic techniques and expressions	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review understanding of the process of factorisation for linear equations.</li> <li>• <b>Tutor presentation:</b> introduce learners to methods of solving quadratic equations, using factorisation, the quadratic formula and completing the square. This could be supported using an online video, such as 'Factorising algebraic expressions' (YouTube).</li> <li>• <b>Individual activity:</b> learners work through a series of construction problems where solving quadratic equations is required and different approaches may be necessary. The results are peer assessed.</li> <li>• <b>Tutor presentation:</b> demonstrate to learners the use of the binomial theorem and how it can be applied to small errors.</li> <li>• <b>Plenary:</b> review methods of solving quadratic equations and discuss advantages of each approach.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples Internet access Online videos
<b>Learning aim B: Examine and apply mathematical techniques correctly to solve practical construction problems involving perimeters, areas and volumes</b>				
10	<b>B1:</b> Mensuration techniques	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review understanding of methods that are used to calculate areas and volumes of regular shapes.</li> <li>• <b>Tutor presentation:</b> introduce learners to methods of calculating areas of regular 2D shapes using standard formulae.</li> <li>• <b>Individual activity:</b> learners work through a series of construction problems that involve the use of 2D regular shapes.</li> <li>• <b>Tutor presentation:</b> demonstrate to learners approaches to calculate perimeters of regular 2D shapes.</li> <li>• <b>Individual activity:</b> learners work through the same regular shapes to calculate perimeters of the shapes using worksheets.</li> <li>• <b>Plenary:</b> review methods of calculating regular areas and how this can be used in construction contexts.</li> </ul>	Calculators Tutor-created worksheet Projector or interactive board to demonstrate examples



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
11	<b>B1:</b> Mensuration techniques	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review approaches to calculate the area of regular 2D shapes.</li> <li>• <b>Tutor presentation:</b> introduce learners to the concept of numerical integration. Demonstrate how to use and apply the mid-ordinate rule for areas under a curve.</li> <li>• <b>Paired activity:</b> learners work through a series of problems that increase in difficulty.</li> <li>• <b>Tutor presentation:</b> demonstrate to learners the use of both the trapezium rule and Simpson's rule also calculating areas under curves. Discuss with learners the different approaches that can be used.</li> <li>• <b>Individual activity:</b> learners work through the same questions using the trapezoidal rule and Simpson's rule, and compare the differences in results.</li> <li>• <b>Plenary:</b> lead a discussion to compare the results obtained using the three different methods for the same construction problem.</li> </ul>	Calculators Graph paper Access to spreadsheet software Tutor-created worksheet Projector or interactive board to demonstrate examples
12	<b>B2:</b> Solving of practical construction problems involving perimeters, areas and volumes	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review prior knowledge of methods of calculating perimeters, and areas of regular 2D shapes.</li> <li>• <b>Tutor presentation:</b> demonstrate application of formulae to perimeters, centre lines and areas of regular solids.</li> <li>• <b>Individual activity:</b> learners carry out a range of calculations to find the perimeters, centre lines and areas of 3D shapes within a construction context, including site and building plans.</li> <li>• <b>Individual activity:</b> learners solve a range of construction problems to find perimeters, centre lines and areas of compound shapes.</li> <li>• <b>Plenary:</b> review activities and resolve any issues learners may have encountered.</li> </ul>	Calculators Graph/squared paper Drawing equipment Tutor-created worksheet Projector or interactive board to demonstrate examples



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
13	<b>B2:</b> Solving of practical construction problems involving perimeters, areas and volumes		<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review application of formulae for 2D shapes.</li> <li>• <b>Tutor presentation:</b> introduce learners to techniques for solving problems with compound shapes. Demonstrate how to calculate values for the surface area and volume of 3D objects.</li> <li>• <b>Individual activity:</b> learners complete worksheets to calculate the area and volume of compound solid shapes.</li> <li>• <b>Tutor-led discussion:</b> demonstrate to learners the methods to calculate the area of irregular shapes.</li> <li>• <b>Individual activity:</b> learners complete calculations to determine the area of irregular shapes.</li> <li>• <b>Plenary:</b> review methods of calculating areas and volumes, and address any misconceptions and mistakes made by learners. Set a homework task to sketch compound features found in buildings and structures in the local area.</li> </ul>	Calculators Graph/squared paper Drawing equipment Tutor-created worksheet Projector or interactive board to demonstrate examples
14	<b>B2:</b> Solving of practical construction problems involving perimeters, areas and volumes	RS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> recap methods of calculating surface area and volume of 2D and 3D shapes.</li> <li>• <b>Tutor presentation:</b> demonstrate how to use plans and drawings to identify features where areas and volumes might need to be calculated.</li> <li>• <b>Paired activity:</b> learners complete worksheets featuring extracts from drawings to calculate surface areas and volumes of construction details and sites.</li> <li>• <b>Individual activity:</b> learners complete practice tasks based on the assessment activities related to areas and volumes.</li> <li>• <b>Plenary:</b> review revision activities and resolve any issues learners may have encountered.</li> </ul>	Calculators Graph/squared paper Drawing equipment Site plans Construction drawings Tutor-created worksheet Projector or interactive board to



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
				demonstrate examples
15	<b>B3:</b> Circular measures	GW	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> lead a discussion to review the principles that apply to algebraic and trigonometric methods; consider the need for accuracy in calculations. Introduce learners to circular measurements.</li> <li>• <b>Tutor-led practical demonstration:</b> introduce learners to the use of radians for circular measurement. Using appropriate examples, explain and demonstrate the process of converting between degree measurements and radian measurement. A video could be used to demonstrate conversions – e.g. ‘What are Radians?’ (YouTube).</li> <li>• <b>Paired activity:</b> pairs carry out a range of activities where measurements are converted between radian and angular measure. Measurements should relate to specific construction situations such as circular patios or windows that are sectors of circles.</li> <li>• <b>Plenary:</b> discuss the reasons why radian measure is often used in construction. Address any misconceptions/errors made.</li> </ul>	Calculators Protractors Drawing equipment Tutor-created worksheet Projector or interactive board to demonstrate examples Internet access Online videos
16	Learning aims A and B	RS	<ul style="list-style-type: none"> <li>• <b>Revision of learning aims A and B:</b> divide the class into small groups and give each group a different set of calculations to complete. Ask each group to produce model answers for each question, showing their working in full. On completion, resources can be photocopied and shared with the other groups as revision material.</li> </ul>	Practice questions calculators
17	Learning aims A and B	AW	<ul style="list-style-type: none"> <li>• <b>Assignment writing:</b> learners use this session to complete assessment activities for learning aims A and B.</li> <li>• <b>Tutor presentation:</b> discuss approaches to answer questions and complete assessment activities, to emphasise/embed good practice in relation to providing evidence for merit and distinction criteria.</li> </ul>	Assignment brief Calculators Paper and pens



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
<b>Learning aim C: Examine and apply geometric and trigonometric techniques correctly to solve practical construction problems</b>				
18	<b>C1:</b> Trigonometric techniques	IS/ GW	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> introduce the use of geometry and trigonometry to solve construction problems.</li> <li>• <b>Tutor demonstration:</b> use detail drawings or site plans and identifying where trigonometry could be used to calculate values, completing worked examples with learners.</li> <li>• <b>Individual activity:</b> learners complete a range of worksheet questions linked to the use of trigonometry.</li> <li>• <b>Tutor-led discussion:</b> discuss how to select trigonometric functions based on the information that is available. You could use the YouTube video 'Trigonometry: solving right triangle' to support the discussion.</li> <li>• <b>Paired activity:</b> learners use given information in questions to determine unknown values in drawings and plans.</li> <li>• <b>Plenary:</b> review learning and understanding of how to apply trigonometric ratios and functions.</li> </ul>	Tutor-created worksheet Projector or interactive board to demonstrate examples Internet access Online videos
19	<b>C1:</b> Trigonometric techniques	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review understanding of trigonometry and the use of trigonometric functions for right angled triangles.</li> <li>• <b>Tutor presentation:</b> demonstrate the use of the sine rule to calculate angles and lengths in triangles. Worked examples would benefit learners.</li> <li>• <b>Individual activity:</b> learners complete a range of worksheet questions to solve problems involving unknown angles and lengths.</li> <li>• <b>Tutor presentation:</b> building on the use of the sine rule, introduce the cosine rule and demonstrate how it is applied to construction problems such as angles and lengths of members in frameworks.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Projector or interactive board to demonstrate examples



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
			<ul style="list-style-type: none"> <li>• <b>Individual activity:</b> learners solve a range of construction problems through the application of the sine and cosine rules.</li> <li>• <b>Tutor presentation:</b> introduce the triangle area rule and discuss where this would be appropriate.</li> <li>• <b>Plenary:</b> set a homework activity with a range of problems to solve that involve the combined use of trigonometry and the triangle area rule.</li> </ul>	
20	<b>C2:</b> Geometric techniques	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review prior learning with regard to properties of lines, points, angles and circles.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate properties of lines, points, angles and circles and how these relate to construction problems.</li> <li>• <b>Individual activity:</b> learners produce a guide to explain the features of lines, points, angles and circles that can be used as revision notes using examples based on structures and construction features.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate how Pythagoras' theorem can be applied to solve construction problems, including surveying and setting out activities.</li> <li>• <b>Individual activity:</b> learners solve a range of construction problems through the application of Pythagoras' theorem.</li> <li>• <b>Plenary:</b> discuss solutions to the problem and why it can be beneficial to apply Pythagoras' theorem to solve problems.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Projector or interactive board to demonstrate examples



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
	<b>C3:</b> Solving of practical construction problems	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review application of trigonometric techniques in surveying.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate how to apply trigonometric functions when interpreting site plans.</li> <li>• <b>Individual activity:</b> learners complete exercises that demonstrate they can apply trigonometry for setting out and measurement in construction.</li> <li>• <b>Plenary:</b> discuss any difficulties that were experienced, review understanding of the processes.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Projector or interactive board to demonstrate examples
21	<b>C3:</b> Solving of practical construction problems	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review application of geometric techniques in construction activities including the use of angular measure.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate how to apply geometric techniques when completing calculations of volumes, areas and lengths in construction contexts.</li> <li>• <b>Individual activity:</b> learners complete exercises that demonstrate they can apply geometric techniques for construction activities.</li> <li>• <b>Plenary:</b> discuss any difficulties that were experienced and review understanding of the processes.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Projector or interactive board to demonstrate examples
<b>Learning aim D: Investigate the use of statistical and graphical methods correctly to solve construction problems</b>				
22	<b>D1:</b> Graphical techniques	IS/GW	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> discuss how points and lines can be described using Cartesian (x-y) coordinates.</li> <li>• <b>Tutor presentation:</b> demonstrate the difference between polar and Cartesian coordinates.</li> <li>• <b>Paired activity:</b> pairs complete worksheets to determine the coordinates of points using both types of coordinate.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Graph paper Projector or interactive board to



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			<ul style="list-style-type: none"> <li>• <b>Tutor presentation:</b> demonstrate how equations can be plotted as straight-line graphs or curves and how graphs can be interpreted to determine the equation they represent.</li> <li>• <b>Individual activity:</b> learners solve a range of construction-based problems by either plotting straight-line graphs and curves or interpreting graphs to determine values.</li> <li>• <b>Plenary:</b> discuss why equations of lines are plotted and how graphical methods can determine equations.</li> </ul>	demonstrate examples
23	<b>D1:</b> Graphical techniques	IS/GW	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review prior learning with regard to linear equations. Question learners about their understanding of the relationship between straight-line graphs and linear equations.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate how to calculate areas under straight-line graphs and how straight-line graphs can be used to solve simultaneous equations.</li> <li>• <b>Individual activity:</b> learners solve a range of problems that require the application of straight-line graphs.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate how to use graphical methods to determine the roots of quadratic equations.</li> <li>• <b>Paired activity:</b> pairs complete worksheets to plot quadratic equations and calculate roots of the equations.</li> <li>• <b>Plenary:</b> discuss why it can be effective to represent formulae in graphical form.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Graph paper Projector or interactive board to demonstrate examples
24	<b>D2:</b> Statistical techniques	IS	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> review prior learning of the use of data and statistics. Question learners about how data could be used in a construction situation.</li> <li>• <b>Tutor-led practical demonstration:</b> demonstrate how data can be classified in different ways including grouped, discrete and so on.</li> <li>• <b>Individual activity:</b> using sets of data linked to construction contexts, learners classify them by type.</li> </ul>	Sets of data Internet access Online videos Calculators spreadsheets



Lesson	Topic	Lesson type	Suggested activities	Classroom resources
			<ul style="list-style-type: none"> <li>● <b>Tutor-led practical demonstration:</b> demonstrate how to calculate the mean, median and mode of sets of data. This could be supported using an online video – e.g. ‘Mode, median, mean, range, and standard deviation (1.3)’ (YouTube). It could also include the use of spreadsheets.</li> <li>● <b>Individual activity:</b> learners complete calculations of mean, median and mode of sets of data. Learners also comment on the importance of each value.</li> <li>● <b>Plenary:</b> discuss why mean, median and mode values of data are of use in construction contexts.</li> <li>●</li> </ul>	
25	<b>D2:</b> Statistical techniques	IS/GW	<ul style="list-style-type: none"> <li>● <b>Lead-in:</b> review understanding of mean, median and mode values of data.</li> <li>● <b>Tutor-led demonstration:</b> demonstrate how data can be presented graphically to introduce the need for standard deviations to be calculated. This is followed by demonstrations of how to calculate standard deviation – you could also show a video – e.g. ‘Standard deviation – statistics’ (YouTube).</li> <li>● <b>Individual activity:</b> learners complete calculations of standard deviation of data they have been working with previously. Support them as required.</li> <li>● <b>Tutor presentation:</b> demonstrate the concepts of cumulative frequency, quartiles and quartile ranges for sets of data.</li> <li>● <b>Paired activity:</b> pairs complete calculations of cumulative frequency, quartile and inter-quartile ranges of the data they have previously analysed. Support learners as required.</li> <li>● <b>Plenary:</b> review understanding of the use of statistical analysis in construction.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Projector or interactive board to demonstrate examples Internet access Online videos Graph paper



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26	<b>D2:</b> Statistical techniques	IS/GW	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> discuss how data can be presented graphically, and why this may be necessary.</li> <li>• <b>Tutor presentation:</b> demonstrate a range of graphical representation techniques for data.</li> <li>• <b>Paired activity:</b> pairs collect a set of data – e.g. temperatures, rainfall or traffic counts – which can then be represented using a range of graphical methods.</li> <li>• <b>Individual activity:</b> learners complete an exercise to present the data collected using a range of appropriate graphical representation techniques.</li> <li>• <b>Plenary:</b> discuss the relative merits of each graphical method.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Graph paper Projector or interactive board to demonstrate examples
27	<b>D3:</b> Solving of practical construction problems	IS/GW	<ul style="list-style-type: none"> <li>• <b>Lead-in:</b> discuss how data can be presented graphically, and how statistics can be used to solve construction problems.</li> <li>• <b>Tutor-led discussion:</b> review how to use statistics to make decisions for construction activities.</li> <li>• <b>Paired activity:</b> collect and interpret data to draw conclusions and make decisions related to construction activities.</li> <li>• <b>Individual activity:</b> learners complete an exercise to use graphs to solve construction problems.</li> <li>• <b>Plenary:</b> discuss the relative merits of each graphical method.</li> </ul>	Tutor-created worksheet Calculators Drawing equipment Graph paper Projector or interactive board to demonstrate examples
28	Learning aims C and D	RS	<ul style="list-style-type: none"> <li>• <b>Revision session:</b> divide learners into small groups and give each group a different specification topic. Ask groups to design revision question cards, posters and booklets for their topic. On completion, resources can be photocopied and shared with the other groups as revision material.</li> </ul>	Tutor-created questions Internet access Paper and pens



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29	Learning aims C and D	RS	<ul style="list-style-type: none"> <li>• <b>Mock assignment:</b> learners sit a mock assignment in full to replicate the conditions and requirements of the Pearson Set Assignment.</li> <li>• <b>Mock assignment results:</b> go through the mock assignment with the class.</li> </ul>	Tutor set questions to use as a mock assignment Calculators Paper and pens
30	Learning aims C and D	AW	<ul style="list-style-type: none"> <li>• <b>Assignment writing:</b> learners use this session to complete assessment activities for learning aims C and D.</li> <li>• <b>Tutor presentation:</b> discuss approaches to answer questions and complete assessment activities, to emphasise/embed good practice in relation to providing evidence for merit and distinction criteria.</li> </ul>	Assignment brief Calculators Graph paper Paper and pens

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