Unit 304: Planning and evaluating work in the Building Services Engineering sector in Wales

# Delivery guide

Unit information

This unit provides the learner with the competencies of how to plan and evaluate work in their trade. Learners will be able to plan work to ensure that it is carried out safely and to any relevant industry standards; acceptance and success criteria that apply.

Learners will be able to organise resources and plan the use of these resources and their time. Learners will organise their own work activities, dealing with typical problems that arise in their work, and seeking advice from others if required. Learners will be able to communicate the work requirements to customers, colleagues, members of the public or other trades.

Learners will be able to evaluate their completed work and how effective they were in planning and performing stages; identifying strengths and weaknesses and using reflective practice to facilitate continual improvement.

Learners may be introduced to this unit by asking themselves questions such as:

* What is meant by a resource?
* Why is planning important?
* What is likely to happen if a new task is not properly planned?
* What is evaluation, and why is it important?
* How will I evaluate the completed work to measure my success?

Learning outcomes

1. Understand how to calculate costs and determine resource requirements
2. Understand how to plan work
3. Understand the importance of evaluation of the work.

Suggested resources

Textbooks

* Gashe, M., Byrne, K. (2020) *The City & Guilds Textbook: Plastering for Levels 1 and 2*. London: Hodder Education.

ISBN 978-1-3983-0647-9

* Tanner, P. (2019) *Electrical Installations Book 1 for the Level 3 Apprenticeship (5357), Level 2 Technical Certificate (8202) & Level 2 Diploma (2365).* London: Hodder Education.

ISBN 978-1-5104-3224-6

Websites

* [BSRIA | Zero carbon targets on the construction industry](https://www.bsria.com/uk/news/article/zero-carbon-targets-on-the-construction-industry/)
* [CHAS | What Are RAMS Documents in Health and Safety?](https://www.chas.co.uk/help-advice/risk-management-compliance/risk-assessment-introduction/method-statement-contents/)
* [Cost Engineering | 3 types of construction cost estimating](https://www.costengineering.eu/blog-article/3-types-of-construction-cost-estimating)
* [HS Direct | Free Method Statement Template](https://www.hsdirect.co.uk/free-resources/health-and-safety/what-is-a-method-statement-and-how-do-i-write-one/)
* [RAMS Safety | RAMS Risk Assessment Method Statement: MSL](https://msl-ltd.co.uk/job-right-rams-risk-assessment-method-statement/)
* [The Balance Small Business | Learn How to Prepare a Gantt Chart for a Project](https://www.thebalancesmb.com/what-is-a-gantt-chart-844535)

Legislation

* [HSE | Health and Safety at Work etc Act 1974](https://www.hse.gov.uk/legislation/hswa.htm)

| **Learning outcomes** | **Criteria** | **Delivery guidance** |
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| 1. Plan the work required to complete the task(s) | * 1. Organise the resources required | * Learners to produce method statements to include resources for various types of small jobs such as replacing a bathroom suite, upgrading a central heating system, rewiring a property or adding an addition circuit to an electrical system. * Learners to research estimation techniques such as analytical (bottom up), comparative (top down/historic) and parametric. * Learners to understand the ‘estimating funnel’. * Learners to understand how to seek clarification and advice where the resources required are not available, e.g. from: the customer/customer’s representative, manufacturer’s technical information, trade literature or referring to the organisation’s procedures. * Learners to know the resources in the range including: * tools * plant * equipment * products * materials. |
| * 1. Set success criteria for the task(s) | * Learners to collaborate and create tasks to identify success criteria for projects, mapping milestones and key activities to identify material usage and quality of finishes to enable the successful completion of projects. |
| * 1. Carry out effective planning | * Learners to complete schedule of works for small projects using Gantt chart methods for reference. * Learners to produce method statements to reflect Gantt charts. * Learners to ensure Gantt charts enable scope of works to reflect the schedule of works. * Learners to identify factors which affect working time allocation to work activities including: * labour resources * planning work with other trades * material deliveries. * Learners to be aware of the external factors that affect time-frame. |
| * 1. Rationalise why the proposed approach is the most appropriate | * Learners to collaborate, present to peers and rationalise why the approach planned for tasks is the most appropriate and will allow them to achieve quality and timescale requirements. |
| * 1. Recognise cost and waste implications of the work | * Learners to include in their research and work how to plan the use of methods of work to help achieve zero or low carbon outcomes and to be considerate of resource usage and wastage, evidencing environmental and financial awareness. * Learners to understand planning methods and planning for efficiency, cost control/savings, limited wastage, timely delivery and a clear handover. |
| * 1. Manage risks associated with completing the task and recognise the steps to be taken to stop risks becoming problems | * Learners to create and complete Risk Assessment Method Statement (RAMS) documents for small projects. * Learners to discuss and present RAMS that they produce to peers. * Learners to recognise problems can arise from the weather conditions, nature of the task, the work environment, other trades, resource availability etc. * Learners to be able to assess the effects resulting from alterations to the work programme and to manage risks (within their control) that would impact on completing the tasks. |
| * 1. Identify the handover requirements of work | * Learners to collaborate and discuss methods of positive communication with all stakeholders before, during and after a project including: * private customers (direct communication or through customer representations or managing agents) * contracting customers * internal customers (within the same company). * Learners to research and gain an understanding of Section 3 of Health and Safety at Work etc. Act (HASAW) 1974 which requires the conducting of business without putting members of the public at risk. * Learners to be able to identify the relevant document (as appropriate) required for a handover and to be able to plan the handover, using the appropriate information, documentation and communication (and demonstration) methods as relevant to the completed trade service provided. |
| 1. Evaluate the work completed against the task brief and success criteria | * 1. Review the appropriateness of success criteria set | * Learners to collaborate and discuss the success criteria supported by successful and efficient achievement of the task to determine whether they created any unnecessary hurdles/barriers. * Learners to reflect on whether different/additional criteria may have helped. |
| * 1. Evaluate the resource selection and usage | * Learners to collaborate and discuss their resource selection and usage, the appropriateness of tool selection, the quantity of materials selected, efficiency of material selection and usage as well as evaluating the impact to cost and the environment. * Learners to collaborate and discuss the quality of their completed work to industry and safety standards, the degree to which it meets the task brief and employer/customer requirements. |
| * 1. Evaluate the finished output | * Learners to know the resources in the range including: * tools * plant * equipment * products * materials. |
| * 1. Evaluate own performance | * Learners to collaborate and discuss the overall fit and finish and reflect on what they could have done differently to improve their output including: * methods * techniques * processes * effectiveness * strengths * weaknesses * lessons learnt * continual improvement. * Learners to be able to evaluate their own strengths, weaknesses and areas for improvement. * Learners to be able to communicate their lessons learnt as and when required. |
| * 1. Review the achievement of timescales | * Learners to collaborate and discuss reasons for any delays, how these could have been avoided and how they could be mitigated against in the future. * Learners to recognise the reasons for any time savings and to consider how they could take lessons learnt into future planning. |
| * 1. Evaluate the handover | * Learners to collaborate and discuss the quality and clarity of the information provided in the handover, achievement of the purpose of the handover and the success of communication method chosen. |