

Documents

Develop and use BCATS project documentation for a Stage 3 BCATS project.





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Introduction

This handbook provides an overview of project documentation you need to develop and use as you prepare for and undertake your Building, Construction and Allied Trades Skills (BCATS) project.

Much of it will be familiar to those who have completed the Level 2 unit standard 24358, *Plan and monitor the construction of a BCATS project*, and quality check the product. This is because documents needed for project planning and implementation are pretty consistent across the different building, construction and allied trades industries. What changes is the project's complexity.

Achieving unit standard 29679, *Develop and use BCATS project documentation for a Stage 3 BCATS project*, will recognise that you are able to successfully develop and use project documentation for a project that is more complex than one at Level 2.

A successful BCATS student...

Knows:

- How to understand the nature and scope of a job
- The right tools to use for a job
- The standard that is expected for a finished job
- When to ask questions and when to give advice
- The skills needed to complete a Level 3 BCATS Project

Does:

- Turn up on time everyday
- Follow instructions
- Follow Health and Safety procedures and show 'due care'
- Their work in a timely manner and to a high standard

Is:

- Honest and trustworthy
- A good timekeeper
- A team player
- Willing to learn
- Hardworking
- A confident communicator

Develop and use BCATS project documentation for a Stage 3 BCATS project

Evidence requirements

1.1	Stages of the job are identified and BCATS project documentation is developed in accordance with project requirements and workplace practice.
1.2	BCATS project documentation is used to decide the materials, equipment, and machinery required for the Stage 3 BCATS project.
1.3	Information is stored, retrieved, and reported in accordance with workplace practice.
1.4	Quality control procedures to be used during production are identified in accordance with project requirements and workplace practice.
1.5	BCATS project documentation is updated as required throughout the project to reflect any changes needed to continue to meet the requirements of the Stage 3 BCATS project.

Assessment evidence and judgement

All BCATS projects need project documentation. This unit standard recognises that you can also develop it yourself and use it to successfully undertake a BCATS project complex enough to meet the Stage 3 BCATS project criteria.

'BCATS project documentation' refers to all the information and instructions (oral, written, and graphic) that will assist in planning for and undertaking your project. You can develop all your project documentation or amend some of the documents enough to make them your 'own'.

Your project documentation will be determined by the nature of your project. It will probably include such things as project briefs, project plans, working drawings, specifications, timelines, budgets, and quality control procedures. What these contain will vary depending on the particular BCATS environment and BCATS project.

To achieve this unit standard, your project documentation must clearly show:

- Stages of the project
- Materials, equipment, and machinery required
- Quality control procedures
- Workplace practice and health and safety requirements
- Any changes between the original and final documentation.

You will need to take workplace practice into consideration. For example, show how you have taken into account any client or Building Code requirements and use abbreviations and symbols typically used in project documentation.

Your project documentation must accurately reflect what is needed to successfully undertake the project. Other people should be able to use it to replicate the project.

Your teacher will also need to formally declare that they have observed you:

- storing, retrieving, and reporting information appropriately
- updating the project documentation, as required, to reflect any changes needed as a result of you checking quality as you go.

Remember to collect evidence of how you use your project documentation as you prepare for and undertake your project. This evidence could be in the form of photographs, written documentation, sketches, brainstorming sessions, documented and verified conversations, videos or a range of other mediums.



Why develop project documentation?

Good planning is the key to any project's success. A well-organised project will generally run smoothly and with few problems or mistakes.

Good planning includes:

- detailed job specifications
- a project schedule
- health and safety considerations.

Good documentation also acts as an up to date record of what was actually happening at any given time during the course of the project.

You will add to your project documentation as your project progresses, just as you would in a workplace. Examples of additions are:

- photos
- work diary
- Site Specific Safety Plans (SSSPs)
- any changes needed to your initial plans as your vision becomes reality
- where relevant, records of communications with clients, suppliers, and/or your team.

You'll need to share all the documentation that's related to your project with your teacher whenever you're asked.

Why develop project documentation

Project documentation for a Stage 3 BCATS project

1. Planning and preparation

This is where you will create or collect

- a project brief, outlining the purpose of your project, its intended use etc.job specifications, plans, drawings, and sketches. You are allowed to use existing project plans but you'll need to change and adapt them enough to make them unique to you and your project
- your costings, including any comparisons you've done
- your proposed staging and timeline, which breaks your project down into achievable steps over the time available.

2. During the project

Keep your documentation up to date by:

- taking photos showing progress, skills, tools, machinery and equipment
- updating the documents with any changes needed as you progress
- adding any new documents, such as Site-Specific Safety Plans and receipts
- including copies of communications such as emails, texts, summary of toolbox meetings
- completing regular entries in your Student Work Diary.

3. At the end of the project

Add:

- your reflections and evaluation. What did you learn? What would you do differently the next time? What are you especially proud of?
- photos of the finished project
- your teacher's verification that they have observed you using and updating your project documentation, along with their assessment that you have achieved the standard.

This section has a few examples of why certain project documents are needed in any project and how to use them.

It includes:

- job specifications
- staging a project
- quality control
- Safety Data Sheets and Product Data Sheets
- using your Student Work Diary.

Job specifications

Job specifications detail:

- the project
- materials to be used
- sizes or dimensions of each component
- any allowable tolerances
- the required quality of the finished product
- timeframes.

They convey this information through:

- plans
- working drawings
- written and verbal instructions.

This documentation must be clear enough for others to interpret and understand them and visualise the final product.

You can use this information to plan when different materials are needed and to schedule additional people or equipment.

You may need to do a bit of brainstorming and play around with different ideas as you develop the way your project can be achieved.

Breaking a project into stages

The initial impression of a project can be quite daunting. However, even the biggest project is just a series of small projects. When they are correctly planned and co-ordinated, they result in efficient completion.

Break the main task into a series of separate stages to help work out the most logical and efficient sequence. This contributes to:

- clearer thinking
- effective planning
- better use of materials and less wastage
- better tracking of personal progress.

To break your project into stages, identify the specific task requirements for the different stages. What you should consider for each stage starts with:

- health and safety requirements
- materials and equipment needed
- any need for extra help, such as your teacher showing you how to use a material or tool unfamiliar to you
- deadlines.

For example, the final stage of your project could be to seal it with polyurethane, which means you could need to:

- complete surface preparation, including ensuring timber is dry enough
- arrange for proper ventilation and PPE such as breathing apparatus and gloves
- arrange for the polyurethane and turpentine to be available, along with applicators such as brushes, rollers and/or sprayers
- check with your classmates that no flames will need to be used nearby and that any fumes escaping won't affect them
- ensure your teacher can help you with the sprayer
- time it for the greatest likelihood of conditions that allow correct application and drying
- make sure the stage is completed within deadline.

Quality Control

Quality control is essential for a successful project. It is about making sure that everything that goes into a project meets project requirements, from the quality of the materials and the tools to use them, to measurements to final finishes.

Quality control should happen at every stage of a project. Your documentation needs to say how the checks will happen. You will then need to document what you discovered when you performed the checks and whether all was well or what you needed to do to make it so.

Your teacher can confirm the quality control procedures you think appropriate for your project. It will include, at the very least, double-checking calculations and the quality of each stage of the project before the next can start.

Safety Data Sheets and Product Data Sheets

Safety Data Sheets and Product Data Sheets provide important information about materials, including hazards, how to use and store them, and what to do if they get on you or your clothes or into the environment. You'll use these when you're selecting the best materials for your project.

Keep copies of Safety and Product Data Sheets as part of your project documentation.

Product Data Sheets

You'll likely use Product Data Sheets when you're selecting the best materials for your project. These sheets usually include:

- A description of the product
- The typical application or way it can be used
- The advantages of using it
- How to apply or use it
- How to finish/cure it
- The limitations of the product. (For example, not suitable for use in certain conditions, or must be used in conjunction with a particular product.)
- What precautions you must take, such as PPE and ventilation requirements

Essential project documents

- How to use, mix or apply it
- A picture of the product
- Brief safety instructions, including what to do in case of an emergency
- How to dispose of it (for example, keep out of sewers and storm water drains, or dispose of any leftover material as trade waste in accordance with local authority guidelines)
- A disclaimer, which normally says that any problems or injuries are your fault if you don't follow the instructions.

Safety Data Sheets

Safety Data Sheets are documents provided by manufacturers with details of the physical and chemical properties of the product. Safety Data Sheets provide important information about hazardous substances like paint, epoxy, and cleaning fluids. They include much more detailed information than Product Data Sheets about how to use a product safely and what to do if something goes wrong.

It is mandatory to have a current Safety Data Sheet for each hazardous substance regardless of the quantity you hold.

Manufacturers have to provide Safety Data Sheets. If you can't find one for the product you're using, contact the company and ask for it.

The image shows two pages from a 'Student Work Diary'. The left page is the 'Title Page' and the right page is 'Project Pages'.

Student Work Diary – Title Page

Student name: _____
 N5#: _____
 Teacher: _____
 Project name: _____

Take the stages from the project plan you have developed for your teacher has given you. You will need to complete a set of Project Pages for each stage of your project. Copy as many sets as you need.

Stage 1 _____
 Stage 2 _____
 Stage 3 _____
 Stage 4 _____
 Stage 5 _____
 Stage 6 _____

Add as many more stages as your project needs.
 Remember to update your project documentation with any changes you make to the project as it progresses.

Student Work Diary – Project Pages
Level 3 Building Construction and Allied Trades Skills (BCATS)

Project name: _____ Project Stage # _____
(from the Title Page)

Date: _____ Working on: _____
 Start: _____ Location: _____
 End: _____
 Weather conditions: _____ People I dealt with: (include their roles and responsibilities)

What I planned to do

- _____
- _____
- _____
- _____

Pages in your student work diary
Explained on page 13 (opposite)

People working in the building, construction and allied trades keep daily records of the work they do. Sometimes this is called a work diary, sometimes a record of work, sometimes a job sheet.

Apprentices in the BCATS industries are required to fill in detailed work diaries or records of work as a requirement of their training agreements.

The work diaries used by professionals working in the industry help keep track of all the projects they're working on. They record:

- the date
- the weather
- the temperature range
- the site conditions
- any visitors to the site and the purpose of their visit
- who is working on site, including any subcontractors
- all equipment used (including any hired machinery) and the status of each, keeping notes of safety checks and breakdowns
- any deliveries
- the quality testing and inspections of materials and workmanship
- a brief summary of the day's activities, particularly noting important discussions with owner, architect, engineer or subcontractor, meetings, changes in scope, delays, work accomplished and any issues affecting progress.

Good, thorough records are essential for industry professionals, because they provide a record that can be referred to:

- if there is a workplace incident
- for invoicing - hours, materials, equipment use etc.
- to help answer any queries from clients, architects etc.
- to provide assurance to compliance agencies.

The Level 3 BCATS Student Work Diary is where you can record everything you do as you work on your project. Not only is this a way for you to record your own journey, it provides a record to help your work. Filling it out each day will give you an advantage post-school because you will already have a habit employers expect from good staff.

Keeping a clear and easy to read work diary is a good way for you to make sure you're on track for success. It will also make it easier for your teacher to assess you as having achieved the unit standard.

Project documentation checklist

Check that you have everything you need to get started on your project.

→	A clear understanding of the purpose/end goal of your project	
→	A clear understanding of how you will achieve it	
→	An idea of who you'll be working with/alongside during the project	
→	Detailed plans and drawings	
→	A list of the materials you'll be using	
→	Costings for the materials you'll need	
→	A list of all the tools, equipment and machinery you'll need to use	
→	Quality checks	
→	A timeline for each stage of your project	
→	Sign-off from your teacher	

Remember, your teacher will help ensure you have all the project documentation you need for your particular project. It is likely that this will include at least:

- Project brief
- Specifications
- Plans
- Drawings
- Programme/timeline/staging
- Sketches
- Brainstorming
- Order lists
- Health and Safety Plans
- Safety Data Sheets.



