



Work effectively and sustainably in the construction industry

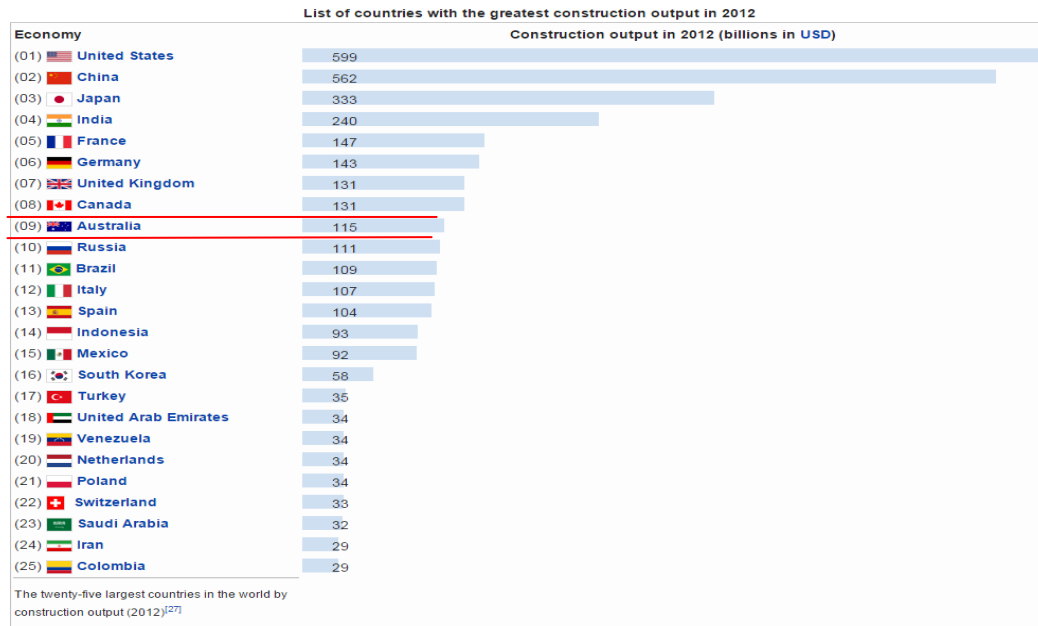
CPCCCM1012

- This unit of competency specifies the outcomes required to prepare for and sustain effective work within the construction industry.
 - It covers the identification and clarification of the construction industry work context, scope and employment conditions, responsibility required to be accepted by the individual, working in a team, individual career path improvement activities and sustainable work practices and techniques



- The construction industry is one of the largest industries in Australia, and there are numerous legislative, regulatory and organisational requirements that need to be understood and followed.
 - Some of these requirements include safety aspects, environmental conditions, technology trends and methods and work processes.
- The construction industry is one of the largest within Australia.
 - It provides homes, workplaces, facilities and infrastructure to ensure the smooth operation of society and daily life.
 - The construction industry is highly diverse and a major component of the economy.
 - According to the Australian Bureau of Statistics (ABS), the industry contributes more than 6% of the gross domestic product and employs more than one million people.
 - Supply and demand for construction is influenced by economic cycles and a range of factors including interest rates, tax reforms and population changes.

List of countries by the largest output in construction [\[edit\]](#)



- Building and construction industry sectors.
- There are three main sectors of industry, which incorporate a wide range of skills carried out in an equally wide range of environments.
 - The main sectors are:
 - Domestic construction;
 - Commercial construction; and
 - Industrial construction.

- Domestic construction

- This sector is involved with the construction of residential buildings.
 - These may include dwellings of one to three storeys, duplex dwellings, villas, townhouses and home units.
 - Generally, work involves the use of concrete, lightweight framing in timber and steel, cladding in brick, timber or composite sheeting, and fitting out with linings, cupboards, ceramic tiles and basic furnishings.
 - Jobs may involve specialisation, subcontracting or multiskilling.



- Commercial construction:
 - This sector is involved with construction of shopping centres, schools, office blocks, hospitals and multi-storey construction.
 - Work may involve reinforced concrete-framed construction, pre-cast concrete panels, pre- and post-tensioned concrete, steel-framed construction etc.
 - Construction involves mainly large buildings and structures that involve a wide variety of skills areas such as special hydraulics, lifts, telecommunications, electronics and a vast variety of designs. Jobs range from simple and repetitive to difficult and complex.



- Industrial construction:

- This sector is mainly involved with construction of factories, storage areas and industrial complexes.



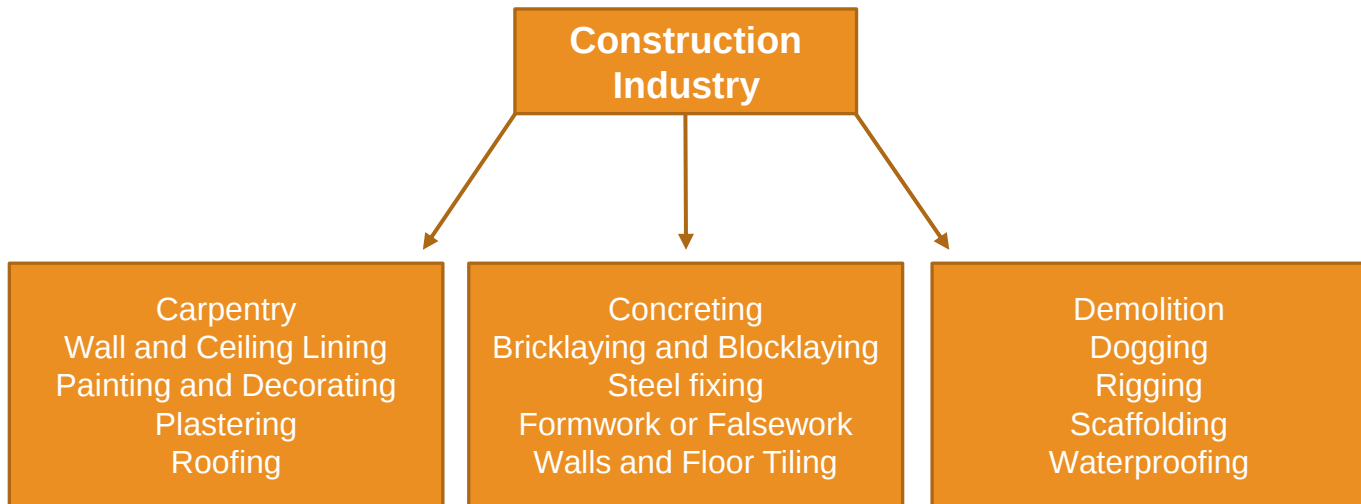
- Work may involve pre-cast tilt-up concrete panels, portal frame steel construction and combinations of these.
- This also requires many skills, which may range from labour-based tasks to highly mechanised tasks.
- Formwork and steel-tying skills are highly regarded in both industrial and commercial works.
 - Another area of construction is the civil sector, which is involved with large projects such as bridge building, road building, airport construction and dam building.
 - Again a variety of jobs and skills are required, from driving or operating heavy earth-moving equipment to detailed construction of formwork.



- Identifying job roles, occupations and trade.
- Dealings of the construction industry.
- Direct and indirect employment
 - Direct jobs are actual full-time positions created by your business. Indirect jobs are created by other businesses that come into existence due to the economic growth of your business.
 - Construction jobs count only if they last in excess of two years. Consultants are generally independent contractors and do not count.
 - Direct employment means you are employed to support a direct employment role. Some of these indirect employment roles could include sales staff in a timber yard, or administrative staff in a building company.

- Whether you are employed in a direct or indirect capacity depends on the role you are performing.
 - Some examples of construction industry jobs include architect, bricklayer, carpenter, concreter, plant operator, cost planner, electrician, engineer, fencer, glazier, occupational health and safety officer, plumber, project manager, site foreman, site manager, stonemason surveyor and tiler.
- Sub-industries play a specific role in the construction industry and require specific training.
- Once you have a good understanding of the industry you can choose to specialise in a particular area or gain skills in combination of the roles.

- Some of the sub-industries are shown in the following diagram:



What a carpenter can do:

Construct and erect timber and steel wall framing and roof structures.

Construct timber stairs.

Construct and erect non-load bearing internal partition walls.

Fix internal linings, panelling and mouldings.

Install windows and doors including framing.

Install door and window locks and furniture.

Erect ceiling and subfloor framing.

Restore and renovate doors, windows and frames.

Install timber and sheet flooring.

Install fitments.

Install exterior cladding, fascia's and soffits.

Concreting to simple forms, including install formwork, reinforcement and concrete.

Install metal roofing.

Erect and strip formwork, including slip form and jump form formwork.



What a plasterer (drywall) can do:

Construct and install non-loadbearing partition wall frames and ceiling frames including fix plasterboard, plaster glass and fibre cement sheets and cornices and finishing joints.

Install suspended ceiling systems and install cast plaster blockwork.

Construct and install non-loadbearing fire-rated walls and ceilings, autoclaved aerated masonry wall and ceiling systems.

Apply or install waterproofing and damp-proofing for plastering drywall.

What a plasterer (solid) can do:

Concrete work for solid plastering, including install formwork, reinforcement and concrete.

Fix steel for solid plastering.

Cut with oxy acetylene for solid plastering.

Apply float and set coats for hard plaster-flat surfaces.

Apply solid render.

Apply trowelled texture-coat finishes.

Install pre-cast decorative mouldings.

Install cast plaster blockwork.

Construct plaster mouldings.

Conite construction.



What a painter / decorator can do:

Erect scaffolding, cradles and ladders, and place drop-sheets to protect areas from paint splattering.

Remove old paint or paper by sanding, scraping etc and using steam strippers to remove wall paper.

Prepare surfaces by fixing woodwork, filling and sealing holes, cracks and joins.

Select or prepare paints to match colours by the addition of tinters and brush, roll or spray the paints, stains, varnishes and other finishes.

Spray paint surfaces using a spray gun or a range of specialised equipment.

Apply decorative paint finishes such as stencils, colour glaze, graining, marbling and lettering.



What a roof filer can do:

Cut and fix roof tiles (including tiles of concrete, clay, metal or similar material, shingles and shakes) to roof and fascia structures.

Set out and fix battens. Bedding, pointing and installing of associated flashing.

Install safety mesh, sarking and antiponding boards.

Install firewall insulation and metal straps to battens.

Install skylights.

Refurbish and maintain roofs, excluding painting roofs.



What a steel-fixer can do:

Place reinforcement steel in footing trenches, for on-ground slabs, and on formwork in preparation for the placement of concrete.

May include pre or post-tensioning.



What a concreter does:

Concrete workers place, spread, compact, finish and cure concrete for building, roads, tunnels, bridges and marine structures.

Houses, commercial structures, using hand tools, pumps, trowelling machinery and other power tools.

Concreters work on all kinds of construction sites like domestic housing, commercial buildings and even on huge structures like dams and bridges.



What a waterproofer does:

Apply waterproofing to foundations.

Frame and fit wet area fixtures.

Seal tanks and ponds.

Prepare surfaces for waterproofing applications.

Seal wet areas.

Apply and install sealant and sealant devices.



What a bricklayer / blocklayer can do:

Brick or block construction,
including surface preparation.

Construct battered masonry
surfaces.

Build straight masonry steps
and stairs with or without
landings.

Install prefabricated window or
door frames.

Lay segmental or unit paving
and lay glass blocks.

Concreting to simple forms,
including installation of
formwork, reinforcement and
concrete.



What a dogger does:

Check loads to be moved, estimating size, shape, weight and centre of gravity, and make sure that loads do not exceed lifting capacities of cranes.

Use hand signals, whistles, or two-way radios when the load is not visible to crane or winch operators.

Attach lifting devices to hoisting equipment and items to be moved, using clamps, hooks, bolts and knots.

Guide loads into position as they are lowered.

Choose and use slings and other grappling devices, covering sharp corners with padding to prevent damage to slings.

Inspect chains, slings, ropes, cables, hooks and lifting gear for flaws and damage such as cracks, wear, mildew and corrosion and report defects,

Doggers work both in and out of view of crane drivers. They have to be continually alert for people, or objects, which may come in the path of the load.



What a rigger does:

Examine objects to be moved, estimate their size, shape and weight and decide on the type of equipment necessary to move them.

Erect cranes and mobile crane booms, and increase the height of tower cranes by bolting component parts in place and rigging cables.

Erect a temporary job or derrick (lifting devices) if required, and install cables, pulleys and other tackle.

Splice ropes and cables to make slings and tackle.

Choose or make slinging equipment and attach it to the load.

Erect structural steel for buildings or plants under construction.

Make sure that safety requirements are met at all times.

Erect precast-concrete panels used on facades of buildings; inspect, maintain and repair equipment.



What a scaffolder does:

Checks requirements from drawings and written instructions, selects materials and set ground levels.

Lift and position sections of scaffolding and bolt pipes together to build up scaffolding.

Check levels in scaffolding structures.

Fit together steel pipes, support braces and clamps to form bases for scaffolds.

Place planks over horizontal bars to create platforms.

Use prefabricated scaffolding when available and dismantle scaffolding at the completion of a job.



Leverlock Mobile Scaffold - "C" Tower Two Level

- Technology, work process improvements and environmental issues all have an impact on the construction industry.
- They can have different effects on different parts of the industry at different times.
 - For example, technological progress opens employment opportunities in new areas but may decrease opportunities in other areas.
 - Cranes now lift building frames into position and allow for a new skill development but this technology has replaced the many manual – labour positions that used to do this job.



- Work process improvements tend to increase the safety of work processes and increase work and learning opportunities.
- Other examples of technology improving the safety of work processes include:
 - Nail guns replacing hammers and so reducing risk of injuries and increasing the speed of the process; and
 - Hearing protection improvements reducing the risk of hearing damage and hearing loss.



- Environmental protection and the technology used to improve environmental outcomes is a common area for technological advances.



- These advances lead to employment opportunities because of the continuing demand for the skills these technologies bring.
- Examples include asbestos removal and wastewater and storm water management.



- Understanding the trends in your organisation and industry allows you to develop skills that will be in demand in the future, therefore increasing your value as a skilled employee.
- You can research industry trends in specific bulletins, industry newsletters, and websites and by talking with others at your worksite.
- You can also be proactive about the development of new technologies and processes for your industry by looking at the processes you are currently undertaking and thinking about how they might be improved.

- List three (3) pieces of technology you use daily at your worksite or a construction site that you are familiar with.
 - Write one (1) sentence to explain what each piece of technology is used for.

Technology:	What it is used for:
1.	
2.	
3.	

- Workplaces employ people using staff contracts.
 - These employment contracts outline the responsibilities and duties of employees, the responsibilities and duties of the organisation including policies and procedures and legislated conditions such as pay rates.
 - Every organisation must account for employment conditions and organisational requirements when employing staff.
 - How you can find information about specific construction employment conditions?
 - You can speak with your supervisor/trainer or you could look in:
 - Bulletins and newsletters; Enterprise agreements;
 - Workplace agreements, which might include Australian Workplace Agreements;
 - Industrial awards; and Industry and workplace codes of practice.



- At the most basic level, industrial relations is about the relationship between the employers and employees.
 - Both employers and employees use organisations to represent them in negotiations – unions for the employees and employer organisations for employers.
 - The government (both State and Federal) also plays a role in industrial relations by deciding what the rules are, making sure the rules are followed and providing an independent tribunal to check and approve agreements that are reached between the parties and to deal with disputes that may arise.
 - Queensland Industrial Relations Commission deals with legality of agreement and hears disagreements in Queensland.
 - Federal tribunals deal with agreements that cut across state boundaries.
 - Where there is an inconsistency between Federal & State, Federal Law applies.



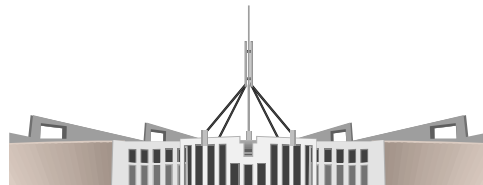
- An award is a legally binding contract approved by either the State Commission or the Office of Employment Advocate (OEA) prescribing minimum terms and conditions of employment.
- State System
 - In Queensland, the Industrial Relations Act 1999, provides for a choice of industrial instruments to provide the rules about employment, wages and conditions. (Not Industrial Disputes).



- These include:
 - Awards – covering all employees and employers engaged in a particular type of work.
 - Certified agreements – covering a specified employer or employers and all or a group of their employees.
 - Queensland Workplace Agreements – covering one employer and one employee.

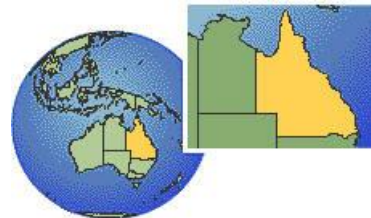


- Australian Workplace Agreements:
 - Between an employer and employee, and may last up to five years.
- Union Collective Agreement (pre WorkChoices - called "Certified Agreements"):
 - Between an employer and a Union to cover all the employer's workers.
- Employee Collective Agreement:
 - Between the employer and all of their workers and does not involve a Union.
- Union Greenfield Agreement:
 - Between a Union and made before a new undertaking commences.



- Agreements MUST include:
 - Four weeks annual leave (two of which may be cashed out);
 - Ten days paid and two unpaid days of personal leave (includes carers and sick leave);
 - Thirty-eight hours (plus reasonable overtime) ordinary hours (this may be averaged out over the year); and
 - Fifty-two weeks unpaid paternal leave/year.

- In Queensland the State Award applies to:
 - Specific classes of workers (e.g. clerical workers);
 - An industry (e.g. engineering);
 - A single employer (e.g. Mt Isa Mines);
 - Either to the whole state or to a specified area only (e.g. hospitality); and
 - A project or proposed project (e.g. new construction work).
- All Awards contain an 'application clause' that sets out what type of work, industries, employers and areas to where the award applies.
 - Queensland employees and employers may also be covered by a Federal Award or Agreement.
 - Federal awards apply only to specific employers within a particular industry.



- Minimum wages for juniors, trainees, adults and the disabled.
- Other key changes are the removal of unfair dismissal laws for employers with less than 100 employees.

Protection for unfair dismissal still exists for ALL employees
– no matter how large or small the company may be.

- Queensland Department of Employment and Training (DET) have offices throughout Queensland to provide assistance and information on all aspects of apprenticeships and traineeships including:
 - Government-funded training;
 - Details of RTO's (Registered Training Organisations) funded by Queensland Government;
 - Rights and obligations of the employer and the apprentice or trainee;
 - Any administrative matter related to an apprenticeship or traineeship;
 - Accessing travel and accommodation subsidies; and
 - Maths, reading and writing training.



- Providing advice on problems between employers and employees, issues including communication problems;
- Absenteeism and behavioural issues;
- Incentives and allowances;
- Support for apprentices and trainees with a disability;
- The role of your supervising RTO and your new apprenticeship centre; and
- Officers of DET may also visit your workplace to check on the progress of training and assist you with any issues you may have.

- Observe conditions of the relevant employment agreement or award;
 - Attend and perform work as directed by your employer;
 - Behave in a courteous and professional manner;
 - Obey lawful instructions;
 - Work toward achieving the competencies of your training plan;
 - Undertake training and assessment as required under your training plan;
 - Keep your training record and produce record when required;
 - Acknowledge that all workplace instructions and any other work-related materials that come into your possession remain the property of your employer (except for tools if you are an apprentice, safety equipment, your training record, completion and qualification certificates); and
 - Acknowledge that all information obtained from your employer and given in circumstances of confidence must be kept confidential and not used or disclosed to any person without the express approval of your employer.



If you are under 18, the parent or guardian who signed your training contract must ensure that these responsibilities are met.

- The training contract legally binds you and your employer.
 - It is signed by you, your employer and your parent/guardian if you are under 18.
- Your contract also records your details, employers' details, name of your traineeship/apprenticeship, commencement and completion dates and your training provider.
- Your contract is a legal document and must be completed during the probationary period and given to your new apprenticeship centre within 2 month of your probationary period or your traineeship / apprenticeship may not be registered.

• WHAT IS EEO?

- Ensures the absence of discrimination, harassment and bullying in the workplace; and
- Provides an environment where merit is recognised and applied fairly and equitably.

• Discrimination

- Direct discrimination occurs when a person is denied the benefit or an opportunity on:
 - The grounds of personal characteristic, such as sex, age or race.
 - Indirect discrimination occurs when a seemingly harmless policy, rule or practice has a discriminatory effect against a group of people (e.g. height or age).



The Anti-Discrimination Act 1991 (Qld) prohibits discrimination on the basis of:

Sex	Impairment / disability	Marital status	Religion
Parental status	Political belief or activity	Pregnancy or breastfeeding	Trade Union activity
Race	Lawful sexual activity	Age	



- Any form of unwanted, unwelcome or uninvited sexual behaviour or language which is or might be offensive, humiliating, intimidating or embarrassing.
 - Sexual harassment can be obvious, indirect, physical or verbal:
 - Unwelcome physical touching;
 - Sexual or suggestive comments, jokes or innuendo;
 - Unwelcome requests for sex;
 - Intrusive questions about a person's private life;
 - Unwanted invitations;
 - Staring or leering (7 seconds max);
 - Sex based insults or taunts; and
 - Offensive communications, by phone, letters, email, fax, SMS.



- The repeated, less favourable treatment of a person by another or others in the workplace, which may be considered inappropriate workplace practice.
- It includes behaviour that intimidates, offends, degrades or humiliates a worker, possibly in front of co-workers, clients or customers.

Overt Bullying		Covert Bullying	
Physical violence or threats	Shouting, swearing repeatedly at others	Practical jokes	Taking credit for someone else's work
Rages, particularly over trivial matters	Humiliating others in public	Deliberately sabotaging or impeding work performance	
Insults and name calling	Persistent criticism	Using authority to block opportunities for others	
Teasing		Constantly changing targets or work guidelines	

- Treat everyone with respect.
- Be supportive of others.
- Be assertive (not aggressive).
- Build trust and confidence.
- Give recognition where it is due.



- Everyone has the right to a workplace free from harassment and bullying.
- If you are being harassed or bullied:
 - Tell the offending person to stop – that their behaviour is unacceptable and not to do it again.
 - Report the behaviour.
 - Be frank and open with the person investigating the claim.

- All employees in Australia are protected from 'unlawful termination'.
 - It is important to look at the difference between 'unlawful' & 'unfair' because most workers covered by WorkChoices are no longer protected from unfair termination.

- Unlawful:

- A sacking is unlawful when it is based on certain grounds, including discrimination on the basis of a workers' race, colour, sex, age, pregnancy, religion or membership of a union.
- Also a sacking is unlawful if based on temporary absence from work because of an injury or illness, maternity or paternal leave, or the carrying out of voluntary emergency activities.

- Unfair:

- Employers with less than 100 workers are exempt from unfair dismissal laws.
- Even those workers covered may be fired for general operational reasons, including economic, technological, structural or similar matters relating to the employers' business.
- If a worker is covered by a State Agreement, they are still protected from unfair dismissal.

**A dismissal is unfair or unlawful if it is found to be
HARSH, UNJUST OR UNREASONABLE**

- All employers must have a valid reason if they are terminating the employment of a worker and it is up to the employer to prove the reason for the dismissal is fair.
 - The dismissal of a worker is unfair and therefore against the law if it is found to be "harsh, unjust or unreasonable."
 - To prove that a sacking was not unfair, it must be shown that the sacking was based on a workers' conduct, capacity (performance of their work) or the operational requirements of the employer.
 - Workers must be given the opportunity to respond to allegations about their conduct or performance.



- **EXCLUSIONS** – other workers are not able to argue their sacking is unfair:
 - Seasonal workers (Federal);
 - Employees engaged under a contract for a specified time or task;
 - Employees on probation;
 - Apprentice or trainee; and
 - Employees not covered by an award & earning \$90,200 or above (Federal) or \$68,000 (State).

- **Procedural Fairness:**

- A worker must be given three warnings in regard to their conduct or performance prior to dismissal, so that they have the opportunity to improve.
- If a worker believes that their dismissal was unfair or unlawful, they can apply for their case to be heard in the Australian Industrial Relations court or Industrial Relations Commission.
- Most claims are resolved through conciliation between the worker, union and employers in the Commission.
- If the claim is not resolved through conciliation, but is found to be unfair, the Commission may arbitrate for reinstatement or Compensation paid to the worker.

• Remedies

- When a worker believes their dismissal was unfair or unlawful they can apply for their case to be heard in the Australian Industrial Relations Court or Industrial Relations Commission.
- The majority of unfair dismissal matters are resolved through conciliation between workers, unions and employers in the Commission.
- If a claim for unfair dismissal is not resolved through conciliation, but is found to be unfair, the Industrial Relations Commission may arbitrate for reinstatement.
- In other words, the judge will tell the boss that they must give the worker their job back.
 - If reinstatement is not practicable, the Industrial Relations Court may order compensation to be paid to the worker.



- Identifying safe work methods and practices to meet legislative requirements.
 - All organisations in the construction industry must meet requirements for safe work.
 - These requirements are outlined in a variety of federal, state and territory government legislation and regulations.
 - Some requirements could include:
 - Australian standards, national safety standards and codes of practice;
 - Industry specific occupational health and safety standards and guidelines;
 - Duty of care;
 - Health and safety representatives, committees and supervisors;
 - Licences, tickets or certificates of competency;
 - National Code of Practice for Induction Training for Construction Work;
 - WHS and welfare Acts and Regulations; and
 - Job Safety Analysis (JSA) and Safe Work Method Statements (SWMS).



- Workplace/Occupational Health and Safety is a general term which relates to the health and safety of persons performing work.
- Protection of members of the public from danger from such work and the protection of workers and the public from risks to health and safety from plant, equipment, materials and other related sources.
 - This unit applies to both construction sites and workplaces producing products for the building and construction industry.
 - The industrial workplace in Australia is controlled by either Federal / Commonwealth or State legislation.
 - The legislation varies from state to state, but each is based on National Standards developed by the National Occupational Health and Safety Commission, known as Safe Work Australia.



Can I get a **White Card**
in my State?

- The Commonwealth has a National Occupational Health and Safety Commission (Worksafe Australia), which has a 'watch dog' role in seeing that all States and Territories administer high quality Occupational Health and Safety.
 - Worksafe uses research, National standards, Codes of Practice, Statistical Information, and Education to encourage high quality Workplace Health and Safety Legislation within all States and Territories.
 - The Commission comprises, Employer Associations, Union Representatives, and State Government Representatives.
 - This group makes recommendations to the State Workplace Health and Safety Council, who in turn assist the Minister of the appropriate State or Territory in the legislation of the Act.



- As a worker you must take all reasonable care for the health and safety of yourself and others on site and in the workplace.
- You must:
 - Be careful and look after your own health and safety in everything you do, and must do it properly for your own health and safety;
 - Look after the safety of other workers;
 - You must not do any thing that may cause an accident or injury to others.
 - (Horseplay can have dangerous consequences. You could seriously injure yourself or someone else)
 - Wear proper PPE if the job you are doing requires it to be worn; and
 - Follow the health and safety rules of your workplace.

- Provide a safe and healthy workplace;
- Provide a safe system of work;
- Provide safe plant and equipment;
- Provide information (in appropriate language);
- Provide training and instruction;
- Provide supervision;
- Monitor health and work environment;
- Keep records;
- Provide Facilities (including First Aid);
- Provide safe access to work;
- Develop a Health and Safety Policy; and
- Your employer must also provide Personal Protective Equipment if required for job task.

- Accepting responsibility for you own workload is an essential part of employment in any industry.
 - Accepting responsibility includes planning and establishing priorities, completing activities on time and reporting problems in accordance with workplace policies and procedures.
 - Accepting responsibility also includes identifying problems when they occur and making contingency plans.



- By planning your activities or creating a schedule, you can contribute to team priorities and deadlines.
 - For example, imagine the plumbing at a house needs to be finished.
 - You are asked to complete the trenching.
 - By planning your activities with others, everyone knows it will take you one hour to trench the ditch.
 - Your team members know they gave one hour to complete any pre-pipe laying activities.
 - Once you have finished trenching you can assist with pipe laying activities.

- The skills needed to plan and prioritise your workloads and set reasonable deadlines include:
 - Literacy skills such as reading and writing (the plan of task);
 - Numeracy skills such as measuring and calculating;
 - Communication skills including active listening and speaking; and
 - Organisational skills such as planning and prioritising.

- Work plans are essential to ensure the activities are completed:
 - To the required standard;
 - To the required timeframe; and
 - Using the organisations guidelines, policies or procedures.
- Your supervisor/trainer or site manager will be able to tell you the required standard for your workplace.

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
EXCAVATION												
Utility Clearance	■											
Surface Scraping	■											
Major Excavation	■	■	■	■	■	■						
Periodic Surveying	■	■	■	■	■	■						
Shoring (none expected)												
FOUNDATION												
Place Forms			■	■	■	■						
Tie Rebar			■	■	■	■						
Inspection			■	■	■	■						
Pour Concrete				■	■	■	■					
Test Concrete						■	■	■	■			
STEEL WORK												
Check Anchor Locations			■	■	■	■						
Complete First Level									■			
Complete Second Level										■		
Complete Roof Trusses											■	
Inspection									■	■	■	

- You can also check in your organisational policies and procedures manuals.
- Workplaces have guidelines, directions and specifications for activities which are used to make sure the activity is completed to the most appropriate standards for the task.
- All tasks will have different specifications or standards depending on the individual component tasks and activities that are undertaken.
- These may take the form of a published document from a government agency, documentation internal to your organisation or simply a set of plans.

- A major expectation of all workplaces is the use of personal protective equipment. PPE is designed and used to protect workers against injury.
 - Some forms of PPE can be:
 - Hard hats, caps;
 - Ear muffs, ear plugs;
 - Dust masks, respirator;
 - Safety goggles, glasses;
 - Overalls, jackets, high-vis shirts;
 - Gloves; and
 - Steel capped boots (leather or rubber).
 - PPE must be worn if an employer has provided it for use when undertaking work and has provided training and maintenance.



- Identifying and reporting variations and difficulties affecting performance or quality requirements.
 - Occasionally variations and difficulties occur in the workplace.
 - These can be variations to specifications, standards, work requirements or quality requirements.
 - Variations can also occur because of amendments to:
 - Australian standards;
 - Company quality policy and standards;
 - Manufacturer specifications; and
 - Workplace operations and procedures.



- Usually, variations occur with quality procedures and plans.
 - These quality procedures and plans vary depending upon the workplace, the tasks or activities or other workplace specific factors.
 - Example:
 - You are working on a building site.
 - The manufacturer's specifications require roofing insulation batts with a rating of R5, but they are unavailable.
 - Therefore, batts with a rating of R4 with added foil insulation are used instead.
 - A variation report would need to be created for this.
- To identify if a variation has occurred, you need to access the information that details the required standards that need to be met.

- Some of this information includes:
 - Sketches, diagrams, signs, memos material safety data sheets, safe work procedures;
 - Instructions issued by authorised organisational or external personnel;
 - Manufacturer specifications and instructions;
 - Work specifications, requirements and plans;
 - Regulatory and legislative requirements, Australian standards and building codes;
 - Work bulletins (union) and schedules; and
 - Written, verbal or graphical instructions.
- Variations should always be communicated and agreed upon by the affected parties especially the clients.
- Unsupported variations can result in customers not paying or more seriously, contracts being lost.

- Occasionally you need to ask for help or support to complete a work task.
 - You need to be honest with yourself to recognise if you need assistance and be specific about the type of help you need.
 - By knowing your abilities and the task expectations you can judge if assistance is required.



- Some tasks you could need assistance with include:
 - Manual-handling tasks;
 - New tasks;
 - Unusual tasks;
 - Tasks requiring skills you don't have yet;
 - Tasks that require equipment you don't have; and
 - Any tasks where training is required.

When you need assistance speak with your team members, supervisor, training coordinator, quality assurance officer, safety officer, site manager or other designated person.

- The majority of work done in the construction industry is completed in teams.
 - When working in teams, it is important to understand team dynamics, goals and the benefits gained through team work.
 - Within the construction industry, team work is essential due to the various sub-industry groups such as electricians, plumbers and tilers who need to work together.
 - Each team member has their own role, but is also there to share information, encouragement and advice with others.
 - Teams are any group of people working to common time frame with common goals. Teams can also be known as a gang, shift or by other terms acceptable on the worksite.



- Site goals are the tasks that need to be completed onsite for the activity or project to be considered successful.
 - These goals may be as simple as completing the unloading of a truck, to finishing the building on time and on budget.
 - Knowing and understanding your site goals is an important first step in achieving them.
 - You can identify these goals through:
 - Talking to your supervisor;
 - Reading plan sheets; and
 - Referring to organisation policies and procedures.

- Teams contribute to site goals by achieving the tasks and activities assigned to the team.
- To achieve these tasks and activities, it is important that teams work well together and have a good understanding of the tasks assigned to them, as a whole and as each person as well.
- Of any member of the team is unsure of the goals and tasks of the team, the team leader must explain how the task or activity meets the goal of the team.

- Teams are an essential component of work on a construction site.
 - Working within team groups allows for greater safety during work tasks, quicker activities and good outcomes for the site and organisation.
 - Teams work well when the individuals in the team know the part they play and are ready and willing to contribute towards the success of the team.
 - To ensure this success each individual needed to identify how their actions contribute to team activities.



- For example:
 - Imagine the team goal is to complete the foundations of the building before Friday.
 - Your tasks are to order the concrete, hire the mini-digger and use the mini-digger to prepare the foundation area.
 - Confirming how your activities contribute to the team goals can help to keep you focused on the work you need to complete.
 - To ensure your actions contribute to the team activities you need to coordinate with you're:
 - Team members;
 - Supervisor/trainer or manager; and
 - Other designated personnel.



- Giving encouragement and assistance is an essential part of the team experience.
- Assistance can be giving help and advice when it is needed. Some forms of advice include:
 - Verbal advice such as telling the person how to do something; and
 - Demonstration such as showing another person how to do something.



- Sometimes a team member may want to talk through options or issues without wanting you to give them any advice.
- Listen to them and offer advice if it is requested or required.
 - Encouragement should be given at all opportunities, where appropriate.
- Encourage co workers to ask questions, provide feedback or voice their opinions over issues.
- Workers should also be encouraged to actively join in team activities, suggest improvements to work activities and be involved in work processes. And just as you encourage other team members, they should also encourage and assist you.

- Building effective teams requires team members and management to encourage improvements within the team.

- Improvements could be:

- Task or activity developments such as increases in effectiveness, efficiency or work satisfaction;
 - Technological developments such as new products or systems;
 - Communication improvements, team competitions;
 - Communication training, sporting games; and
 - Off-site training or team building activities such as relevant, compelling experience that could move them and motivated them toward seeing how it can be done.
- These activities should be use carefully, since some people don't respond to that.



- Disharmony or friction between people can occur in all teams but it is how this friction is resolved that is crucial to the success of the team. Common sources of friction and disharmony include:
 - New team members changing the dynamics of the team;
 - One team member having a personal problem with other team members;
 - Sections within the group working against the team as a whole;
 - New tasks or activities causing uncertainty within the team;
 - Communication problems within the team; and
 - Unclear direction or goals of the team.



- Resolving the problem and sorting out the disharmony and friction usually involves a discussion about the cause of the problem, or action plan.
 - An action plan then needs to be developed to resolve the cause.
 - Someone from outside the team, possibly in management, should lead this discussion and create an action plan with the team.
 - For example:
 - A leading hand of another team or supervisor/trainer who can listen without judgment and offer suggestions to solve the problem, or other impartial person.

- The construction industry is a large, diverse industry that requires many specific skills.
 - Each individual worker needs to identify the generic skills they need to work effectively in the construction industry as well as the specific skills needed in each specialist area that they work in.

Generic Skill	Example
Communication skills	Verbal communication, reading, writing, numeracy.
Interpretation skills	Understanding plans, specifications, maps, diagrams.
Technological skills	Using mobile phones, two-way radios, fax machines, the internet.
Interpersonal skills	The ability to work in a team.
Organisational skills	Planning work, coordination of team members.
Task specific skills	Building, concreting, tiling, plastering, painting, plumbing.

- Some ways of accessing the required information could include:
 - Speaking with your supervisor/trainer about the skills needed on the site;
 - Reading building industry newsletters and bulletins (union journal);
 - Attending a local educational institute (RTO) to be trained;
 - Interviewing a mentor or adviser; and
 - Specialist skills depend on your job role or occupation.
- There are many different jobs in the construction industry which require different skills, different qualifications and different amounts of work experience.



- Learning needs can vary from site to site due to the nature of the work. Identifying your own learning needs means:
 - Identifying your current knowledge and skills;
 - Identifying future requirements such as what you might be doing in five years;
 - Determining what you need to learn to achieve the required goals; and
 - Establishing how to get the skills you need.



- To help you identify your skills and learning needs, you may need to consult with appropriate personnel from your workplace such as a supervisor/trainer, site manager, safety officer.
 - These people can also help you determine the most appropriate way to develop your skills and knowledge.

They may suggest the following actions:

Complete an assessment of current skills.	Enrol in formal vocational education and training.
Undergo recognition of prior learning.	Enrol in non-accredited training and short courses.
Undertake on-the-job training or mentoring.	Sign up for a traineeship or apprenticeship.
Organise for job rotation, task sharing or refresher training.	Undertake individual guided study.

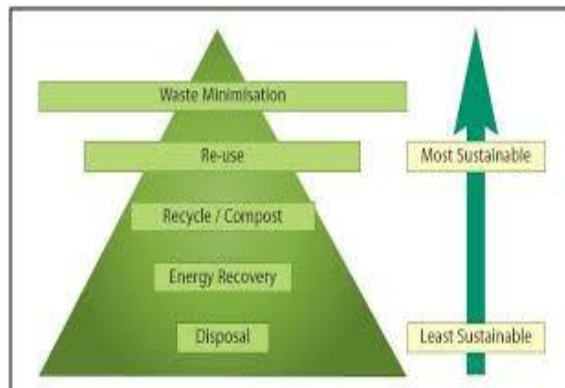
- Initiative is another important skill. What does that mean?
- By thinking of new ways to do something or considering options of doing a particular task – you can make improvements to the job at hand.
 - Resources at worksites are the materials and products that are used in the construction industry.
 - Resource use and efficiency can have an impact on the profitability and safety of worksites.
 - Environmental hazards related to resources must be monitored and documented correctly.



- Improvements in resource efficiency can be made due to advances in technology, systems or procedures.
- Environmental legislation and regulations are applicable to some resources used regularly on construction worksites, and work plans and resource management plans will include these requirements.



- Every construction worksite is different and uses different resources depending upon the nature of the work being undertaken.
- Common resources used on most worksites could include:
 - Materials such as timber, steel, plaster;
 - Natural resources such as water and soil; and
 - Products such as tools, equipment, vehicles and chemicals.

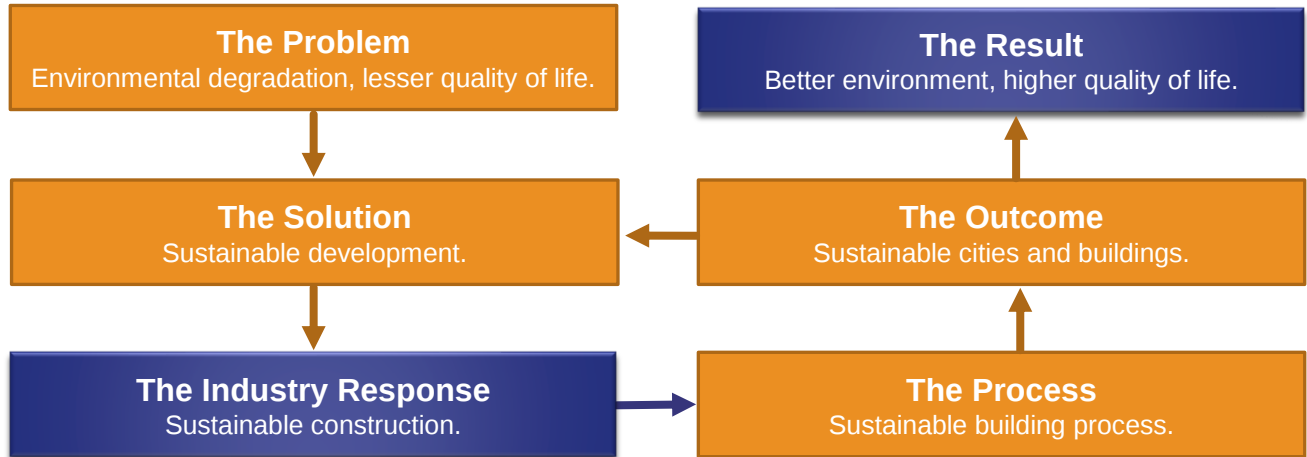


- Knowing which resources are used on your worksite is essential for safety and effective resource management systems and should be covered in your site induction.
- You should also be instructed in the resource management systems and procedures used on the site during the site induction.
- If you have yet to have site specific induction covering resources and resource management systems, speak with your supervisor/trainer.
- Resources that are used on worksites need to be monitored for safety and efficiency.



- The quest towards sustainable development in our societies puts the spotlight on the built environment and the construction industry.
 - Construction, buildings and infrastructure are the main consumers of resources: materials and energy.
 - In the European Union, buildings require more than 40% of the total energy consumption and the construction sector is estimated to generate approximately 40% of the man-made waste (Sjöström, 1998).
 - Environmental burdens caused by construction can be minimised and construction technology can be used to remedy the environment.
 - Sustainable construction is the response of the building sector to the challenge of sustainable development. (See diagram on next slide.)

- Diagram: A simplified road map for sustainable construction. (Bourdeau et al. 1998).



- Environmental hazards relating to resources used on the worksite must be controlled by workplace compliance measures.
 - These measures may include workplace policies, procedures, specifications, and plans, codes of practice and governmental legislation and regulations.
 - The exact information you need to comply with will be outlined in your worksite policies.
 - Environmental hazards include any substance, material, product or resource that may be dangerous to any aspect of the environment such as people, animals, water or plants.



- The following table provides some examples of environmentally hazardous materials.

Type of environmentally hazardous substance	Examples
Toxic	Poisons
Corrosive	Acids and Alkaline
Flammable	Liquid, Gas or Fuels and Timbers
Explosive	Chemicals (some)
Infectious	Diseases (Anthrax)

- Your workplace procedures, job safety analysis (JSA) sheets and material safety data sheets (MSDS) will outline the exact dangers and the required control measures that must be taken.
 - Identifying new hazards not covered by the procedures, JSAs and MSDSs is responsibility of all people on the worksite.
 - Once you have identified a hazard you need to report the hazard to the correct people.

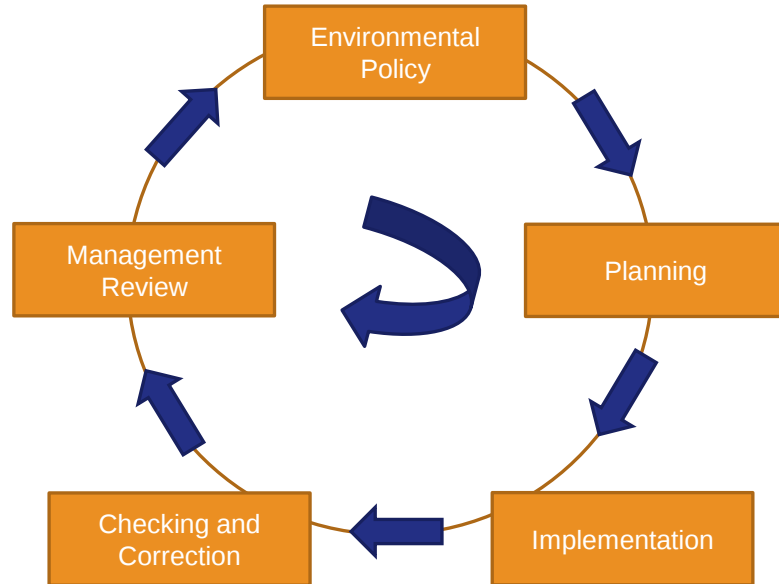
These people may include the:

Supervisor / Trainer	Site Manager	Fire Brigade	Work Cover, Work Safe or similar agency
Safety Officer	Administrative Officer	Police Ambulance	Environmental Protection Authority or other government agency

- Reporting the hazard allows for the creation of new procedures or JSAs.
- These allow others on your worksite to be safe from the new hazard and help to prevent the hazard recurring if a similar incident happens in the future.



- The majority of medium to large worksites have formally documented plans to ensure the continuous improvement of environmental practices.
- These plans outline the environmental requirements that must be met and how the worksite resources should be managed efficiently.



- Some of these plans should include:
 - Stormwater protection plans such as run-off management or water collection on some sites;
 - Regeneration policies including site clean-up procedures to ensure the required level of regeneration or reparation is done to the site;
 - Waste management such as recycling or reusing materials and using landfill as a last resort;
 - Dangerous goods management such as the correct storage, transport and disposal of toxic, chemical, dangerous and hazardous goods; and
 - Amenities management including correct procedures for grey water management and sewerage management.
- Following these plans is vital to ensure you protect the environment and comply with the resource management standards of your organisation.

- Workplace improvements are generally made by the people doing the tasks or activities.
 - This is because the workers are more likely to recognise where an improvement can be made and the best method for improving task or activity.
 - For example, some possible improvements you might discover include:
 - New materials, products and work practices that could be used at the worksite; new safety devices or personal protective equipment that could increase workplace safety;
 - Energy conservation techniques or alternates to the current energy source that are more efficient such as solar energy, water efficiencies including using grey water where appropriate; and greenhouse gas emission controls such as turning off equipment when not in use or keeping equipment well maintained so that it is more efficient and less polluting;
 - Transport advances such as car pooling, scheduling deliveries to minimise fuel use, maintaining the vehicles; and
 - Reducing or recycling waste materials.

- When you encounter a situation, process or work practice that you believe could be improved on, you need to discuss the possible improvement with others in your workplace.
 - The best place to have these discussions is in a team meeting.
 - You could also discuss the improvements with supervisors, site managers, team members and others.
 - Your worksite may require you to make a formal report, request for improvement report or other documented means for suggesting an improvement.



- Every worksite needs to comply with environmental regulations and legislation.
- These could include:
 - **Federal Legislation –**
 - Environmental Protection And Biodiversity Conservation Act 1999
 - **State Legislation –**
 - Queensland Environmental Protection Act 1994; Environmental Protection Regulation 2019
 - **Local Legislation –**
 - Logan Planning Scheme 2006, Flood Management Area Overlay

- These regulations and legislation are imposed through:
 - Federal government;
 - State government (territory); and
 - Local government.

- Other forms of legislation or best practice codes that may affect your work in the construction industry could include:
 - Your organisations environmental or recycling policies and procedures;
 - Industry codes such as the Building Code of Australia (BCA); and
 - International codes such as the environmental agreements outlined in the Kyoto Protocol.

- To identify which environmental legislation and regulations you need to comply with, check your organisational policies and procedures.
 - These policies and procedures outline the exact requirements you need to follow.
- If you breach environmental legislations, regulations or Acts, you could be fined or charged with an offence.
- Your organisation and supervisor can also be fined.
 - All workers need to be aware of the environmental legislation applicable for their worksite.



- You must report any breaches of the environmental requirements at your worksite.
- These breaches could relate to government or organisational legislation.
 - Near misses should also be reported so the cause of the near breach can be investigated and repaired, if necessary.
 - Identifying a breach or near breach of the regulations or legislation is essential to fix the problem.



- Breaches could include:
 - The wrong materials being used in construction or on a project;
 - Materials placed in the wrong area of the worksite and causing a safety risk; and
 - Rubbish being disposed of incorrectly and endangering the environment.
 - When you do identify a breach or near breach you must report into the correct person in the correct way.
- Some of the designated people include your supervisor/trainer, site manager, safety officer or designated officers from within the organisation or from external agencies.