

Title:	Environmental Awareness and Sustainability in Construction
Level:	1
Credit value:	1
GLH:	10
Unique Reference Number:	A/651/4796
Sector Subject Area:	5.2 Building and Construction
Aim:	The aim of this unit is to allow learners to develop an understanding of environmental awareness and sustainability in construction.
Assessment Type:	Project assignment.
Assessment Guidance:	This unit is internally assessed through the completion of the NOCN set project assignment and internally and externally quality assured. The NOCN assignment has been produced and should be used to evidence all learning outcomes.

Learning outcomes

The learner will:

1. Understand what is meant by environmental awareness and sustainability.

Delivery content:

The purpose of this learning outcome is to introduce learners to environmental awareness and sustainability.

The learner must:

- understand what is meant by **environmental awareness**.
- understand what is meant by **sustainability**.
- understand the three **Rs** in **sustainability**.
- know about the three strands of sustainable development:
 - environmental.
 - social.
 - economic.
- know what is meant by **natural resources**.
- understand the importance of **natural resources** and the **sustainability** issues related to them.

- know why it is important to adhere to both **environmental awareness** and **sustainability**, in terms of:
 - carbon footprint.
 - climate change.
 - organisational reputation.

2. Understand the impact the construction industry has on the environment.

Delivery content:

The purpose of this learning outcome is to ensure learners understand the impact the construction industry has on the environment.

The learner must know:

- how construction related actions have a **negative impact** on the environment.
- how construction **processes** could have a **negative impact** on **sustainability**.
- the impact of not adhering to **environmental awareness** and **sustainability** can have on:
 - an organisation.
 - plants.
 - animals and insects.
 - a local community.
 - the atmosphere.

3. Understand ways to reduce the impact the construction industry has on the environment.

Delivery content:

The purpose of this learning outcome is to ensure learners understand ways to reduce the impact the construction industry has on the environment.

The learner must identify:

- **actions** that can minimise the negative impacts on the environment.
- **actions** that can minimise the negative impacts on **sustainability**.
- why it is important for an organisation to have a waste management plan.
- the different **types of waste** that can be generated on a site.
- the methods for managing waste.
- the **hazards** associated with types of waste.
- the types of waste generated that can be:

- reused.
- recycled.
- what an environmental plan is, what it is used for and what it should include.

Scope of Training

The Scope of Training identifies areas that must be covered during the delivery of this unit. This is the minimum that is expected but tutors are expected to include other areas, knowledge of which will benefit their learners, based on location, types of work available and from the tutors own professional experience.

What would you expect the learner to be able to do or not to do?

The expectation is that the learner will be able to differentiate between environmental awareness and sustainability and be able to identify basic impacts as detailed below. It is not expected that they will be able to recall specific legislation or the major impacts this can have to carbon footprints and climate change.

It is expected that tutors expand on the areas to be covered to make relevant to the local area and employment opportunities and explain terms in using terms that will be understandable to their learners.

Environmental awareness	Plant life wildlife	Water courses pollution	Community impact
Sustainability	3 Rs Environmental Social Economic		Ethical Natural resources
The 3 Rs	Reduce	Reuse	Recycle
Construction processes	Use of hazardous materials Building on green land	Demolition	Transportation Mineral extraction
Environment	Plant life (flora) Wildlife (fauna)	Water courses Pollution	Community impact
Negative impact (environmental awareness)	Impact on biodiversity	Air quality Clean-up costs	Reduction of natural habitat
Actions (environmental awareness)	Wildlife friendly installations Dust control / suppression	Use of renewable resources Reuse of brownfield sites	Biodiversity surveys Wildlife relocation Use of pressure washers

	Use of high-volume low pressure spraying equipment (HVLV)		
Processes	Cement production	Mineral extraction	Poor recycling
Negative impact (sustainability)	Carbon footprint Climate change		Organisational reputation
actions (sustainability)	3Rs Community engagement Waste management		Local procurement Local employment
Types of waste	Concrete and aggregates Timber	Steel Plastics Hazardous	Paper/card Oil/fuel/solvents
Hazards	Fumes Spills going into land or water	Dust Noise Crush injuries	Exposure to substances
Reused	Timber Paint Bricks / blocks	Slates/tiles Aggregates Crushed concrete	Metals Components
Recycled	Timber Paints	Steel	Copper
Natural Resources	Construction materials	Fossil fuels (oil, gas, coal)	Water
Environmental plan (contents)	Identify roles and responsibilities. Set specific, measurable targets. Set standards that must be adhered to. Identify risks and establish mitigation measures. Establish procedures for communication and training. Establish procedures for monitoring and reporting.		