Open Awards Qualification Unit

This unit forms part of a regulated qualification.

1 Unit Details

Unit Title:	Metals and Alloys
Unit Reference Number:	M/650/3414
Level:	Entry Level Three
Credit Value:	3
Minimum GLH:	30

2 Learning Outcomes and Criteria

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Know how unreactive metals are formed	1.1 Identify unreactive metals
	1.2 Explain how unreactive metals are formed
	1.3 Give examples of chemical reactions used in metal extraction
	1.4 Describe how less reactive metals can be produced
2. Know how metals and alloys are mined, extracted and processed	2.1 State how metals are alloys are: • Mined • Extracted
	2.2 State how metals and alloys are processed for use following mining and extraction
3. Know the impacts and benefits of mining metals and ores	3.1 State separately one • Social • Environmental • Economic impact of mining metal ores

		3.2	Identify the: • Social • Environmental • Economic benefits of mining and extracting metals and ores
		3.3	State the environmental impacts and benefits of recycling metals and metal ores
4.	Know how the properties of metals affects their use	4.1	Outline how the structure of metals dictate their melting points
		4.2	State how the properties of metals affects their usefulness
5.	Know the properties of alloys	5.1	State the properties of alloys in metals used to make objects for everyday use
		5.2	Outline the process by which iron is converted into steel
6.	Be able to carry out hardness tests on metals and alloys	6.1	Investigate the hardness of different alloys and metals, including steel
		6.2	Carry out appropriate hardness tests on a range of metals and alloys