

Title	Explain basic magnetism and electromagnetism as applied to the electrotechnology industry		
Level	1	Credits	1

Purpose	People credited with this unit standard are able to: <ul style="list-style-type: none"> – explain magnetic theory – describe electromagnetism.
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Classification	Electrical Engineering > Core Electrical
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Available grade	Achieved
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Guidance information

This unit standard has been developed for learning and assessment off-job.

Outcomes and Performance criteria

Outcome 1

Explain magnetic theory.

Performance criteria

1.1 Magnetism is defined.

1.2 The domain theory of magnetism is explained.

1.3 Magnetic poles and flux are described.

1.4 Flux distribution around bar magnets is described.

Range single bar magnet, two bar magnets with similar poles adjacent, two bar magnets with opposite poles adjacent.

1.5 Laws of repulsion and attraction are stated, and explained.

Range like poles and unlike poles, calculations using the inverse square law.

Outcome 2

Describe electromagnetism.

Performance criteria

- 2.1 The basic principles of electromagnetism are explained.
- 2.2 A magnetic field is created in a bar using a wire coil.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 April 1996	31 December 2013
Revision	2	3 April 2001	31 December 2013
Review	3	26 May 2005	31 December 2025
Rollover and Revision	4	15 March 2012	31 December 2025
Revision	5	15 January 2014	31 December 2025
Review	6	28 March 2024	N/A

Consent and Moderation Requirements (CMR) reference	0003
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@WaihangaAraRau.nz if you wish to suggest changes to the content of this unit standard.