

<b>Title</b>	<b>Explain basic magnetism and electromagnetism as applied to the electrotechnology industry</b>		
<b>Level</b>	<b>1</b>	<b>Credits</b>	<b>1</b>

<b>Purpose</b>	People credited with this unit standard are able to: <ul style="list-style-type: none"> <li>– explain magnetic theory; and</li> <li>– describe electromagnetism.</li> </ul>
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<b>Classification</b>	Electrical Engineering > Core Electrical
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<b>Available grade</b>	Achieved
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**Explanatory notes**

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

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**Outcomes and evidence requirements**

**Outcome 1**

Explain magnetic theory.

**Evidence requirements**

- 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.

## Evidence requirements

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

<b>Planned review date</b>	31 December 2014
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### Status information and last date for assessment for superseded versions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	N/A
Rollover and Revision	4	15 March 2012	N/A
Revision	5	15 January 2014	N/A

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

### Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

### Comments on this unit standard

Please contact The Skills Organisation [reviewcomments@skills.org.nz](mailto:reviewcomments@skills.org.nz) if you wish to suggest changes to the content of this unit standard.