

# Open Awards Qualification Unit



This unit forms part of a regulated qualification.

## 1 Unit Details

|                        |                          |
|------------------------|--------------------------|
| Unit Title:            | How the World is Powered |
| Unit Reference Number: | F/650/3627               |
| Level:                 | Entry Level Three        |
| Credit Value:          | 6                        |
| Minimum GLH:           | 50                       |

## 2 Learning Outcomes and Criteria

| Learning Outcome (The Learner will):  | Assessment Criterion (The Learner can):   |
|---|---|
| 1. Know how individuals and communities can harness and use energy from natural sources | 1.1 Identify the ways that energy from: <ul style="list-style-type: none"><li>• The Sun</li><li>• Wind</li><li>• Water</li></ul> may be harnessed for domestic use by individuals and communities |
|   | 1.2 Identify ways that energy from solar, wind and water power can be converted for use as power in homes and businesses  |
| 2. Know how energy producers harness energy and produce power                           | 2.1 State how energy can be harnessed from: <ul style="list-style-type: none"><li>• Renewable</li><li>• Non-renewable</li></ul> Natural sources for converting into power                         |
|   | 2.2 Identify how harnessed energy is converted into power   |
|   | 2.3 Identify ways that energy producers generate electricity from a range of natural renewable and non-renewable sources  |
| 3. Know about the role of energy producers and the National Grid                        | 3.1 Identify the role of energy producers in supplying energy to homes and businesses   |

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|---|-----|---|
|   | 3.2 | Identify the role of the National Grid in the supply of power to homes and businesses   |
|   | 3.3 | Identify ways that power from the National Grid is delivered to homes and businesses  |
| 4. Know how generated electricity can be stored   | 4.1 | Identify ways that energy and electricity are stored  |
|   | 4.2 | State how batteries store power   |
|   | 4.3 | Identify ways power is released from batteries  |
| 5. Know about the processes and materials involved in generating and distributing electricity | 5.1 | Identify processes required to convert harnessed energy into electricity  |
|   | 5.2 | Identify the materials and equipment required to convert harnessed energy into electricity  |
|   | 5.3 | Identify the risks and issues involved in generating and transmitting electricity   |
| 6. Know about household appliances that use electricity                                       | 6.1 | Identify a range of common appliances that run on mains electricity   |
|   | 6.2 | Identify a range of common appliances that can be powered by battery  |
|   | 6.3 | Identify alternative power sources for common appliances that require electricity   |
| 7. Know about the risks and benefits of generating and using electricity                      | 7.1 | Identify the health and safety risks from: <ul style="list-style-type: none"> <li>• Generating electricity</li> <li>• Using electricity</li> <li>• Overloading power sockets</li> </ul> |
|   | 7.2 | Identify the main benefits of using electricity to power homes and businesses   |
|   | 7.3 | Identify the main drawbacks of using electricity to power homes and businesses  |
|   | 7.4 | Identify the environmental impacts of using <ul style="list-style-type: none"> <li>• Renewable</li> <li>• Non-renewable</li> </ul> sources of energy production                         |