Heinemann Explore Science Curriculum Matching Chart for Grade 2

This chart shows where all of the topics and Learning Outcomes specified in the Cambridge Primary Science Curriculum Framework are covered in the Heinemann Explore Science course.

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Student Book coverage</th>
<th>Supporting coverage in Teacher’s Book or Workbook</th>
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<tbody>
<tr>
<td><strong>Scientific enquiry</strong></td>
<td><strong>Scientific enquiry: Ideas and evidence</strong></td>
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</tbody>
</table>
| Collect evidence by making observations when trying to answer a science question. | Unit 1: Living things in the environment  
- Let’s explore! pp.2–3  
- Home sweet home pp.4–5  
- Grouping animals pp.6–7  
- Caring for our environment pp.8–9  
- The weather pp.10–11 | Teacher’s Book 2, pp.16–31 |
| | Unit 2: Materials  
- What are rocks? pp.14–15  
- Hard as nails? pp.16–17  
- Natural or not? pp.18–19  
- All change! pp.20–1  
- Heating up pp.22–3  
- Disappearing acts pp.24–5 | Teacher’s Book 2, pp.32–49 |
| | Unit 3: Light and dark  
- Source of light pp.28–9  
- Our Sun pp.30–1  
- Using light pp.32–3  
- Shady shadows pp.34–5  
- Exploring shadows pp.36–7  
- Changing shadows pp.38–9 | Teacher’s Book 2, pp.50–67 |
| | Unit 4: Electricity  
- Bright sparks pp.42–3  
- What is a circuit? pp.44–5  
- Making models pp.48–9  
- Circuit pictures pp.50–1  
- Attention seekers pp.52–3 | Teacher’s Book 2, pp.68–85 |
| | Unit 5: Earth and beyond  
- Spinning around pp.58–9  
- Moving shadows pp.60–1  
- Happy Birthday Earth pp.62–3  
- Night and day pp.64–5 | Teacher’s Book 2, pp.86–101 |
| Use first-hand experience, e.g. observe melting ice. | Unit 1: Living things in the environment  
- Grouping animals pp.6–7  
- The weather pp.10–11 | Teacher’s Book 2, pp.16–31 |
| | Unit 2: Materials  
- Hard as nails? pp.16–17  
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| | Unit 5: Earth and beyond  
- A galaxy far away pp.56–7  
- Spinning around pp.58–9  
- Night and day pp.64–5 | Teacher’s Book 2, pp.86–101 |
Use simple information sources.

Unit 1: Living things in the environment
- Let's explore! pp.2–3
- Home sweet home pp.4–5
- Grouping animals pp.6–7
- Caring for our environment pp.8–9
- The weather pp.10–11

Unit 2: Materials
- What are rocks? pp.14–15
- Natural or not? pp.18–19
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Unit 3: Light and dark
- Source of light pp.28–9
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Unit 4: Electricity
- Bright sparks pp.42–3
- Circuit pictures pp.50–1
- Attention seekers pp.52–3

Unit 5: Earth and beyond
- A galaxy far away pp.56–7
- Spinning around pp.58–9
- Moving shadows pp.60–1
- Night and day pp.64–5

Teacher's Book 2, pp.16–31

Ask questions and suggest ways to answer them.

Unit 1: Living things in the environment
- Let's explore! pp.2–3
- Home sweet home pp.4–5
- Grouping animals pp.6–7
- Caring for our environment pp.8–9
- The weather pp.10–11

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- What are rocks? pp.14–15
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- All change! pp.20–1
- Heating up pp.22–3
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Unit 3: Light and dark
- Source of light pp.28–9
- Our Sun pp.30–1
- Using light pp.32–3
- Shady shadows pp.34–5
- Exploring shadows pp.36–7
- Changing shadows pp.38–9

Unit 4: Electricity
- Bright sparks pp.42–3
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- Circuit pictures pp.50–1
- Attention seekers pp.52–3

Unit 5: Earth and beyond
- A galaxy far away pp.56–7
- Spinning around pp.58–9
- Moving shadows pp.60–1
- Happy Birthday Earth pp.62–3
- Night and day pp.64–5

Teacher's Book 2, pp.16–31

Teacher's Book 2, pp.32–49

Teacher's Book 2, pp.50–67

Teacher's Book 2, pp.68–85

Teacher's Book 2, pp.86–101

Predict what will happen before deciding what to do.

Unit 2: Materials
- Hard as nails? pp.16–17
- Disappearing acts pp.24–5

Unit 3: Light and dark
- Exploring shadows pp.36–7

Teacher's Book 2, pp.32–49

Teacher's Book 2, pp.50–67
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<th>Task</th>
<th>Unit 1: Living things in the environment</th>
<th>Unit 2: Materials</th>
<th>Unit 3: Light and dark</th>
<th>Unit 4: Electricity</th>
<th>Unit 5: Earth and beyond</th>
<th>Teacher's Book 2, pp.16–31</th>
<th>Teacher's Book 2, pp.32–49</th>
<th>Teacher's Book 2, pp.50–67</th>
<th>Teacher's Book 2, pp.86–101</th>
<th>Workbook 2, pp.12–30</th>
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<tr>
<td>Recognize that a test or comparison may be unfair.</td>
<td>Unit 2: Materials</td>
<td>• Disappearing acts pp.24–5</td>
<td>• Exploring shadows pp.36–7</td>
<td>Unit 3: Light and dark</td>
<td>• Exploring shadows pp.36–7</td>
<td>Teacher's Book 2, pp.32–49</td>
<td>Teacher's Book 2, pp.50–67</td>
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<td>Make suggestions for collecting evidence.</td>
<td>Unit 1: Living things in the environment</td>
<td>• The weather pp.10–11</td>
<td>• Light and dark p.27</td>
<td>Unit 5: Earth and beyond</td>
<td>• Earth and beyond p.55</td>
<td>Teacher's Book 2, pp.16–31</td>
<td>Teacher's Book 2, pp.50–67</td>
<td>Teacher's Book 2, pp.86–101</td>
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<td>Talk about risks and how to avoid danger.</td>
<td>Unit 4: Electricity</td>
<td>• Bright sparks pp.42–3</td>
<td>• Exploring shadows pp.60–1</td>
<td>Unit 5: Earth and beyond</td>
<td>• Exploring shadows pp.60–1</td>
<td>Teacher's Book 2, pp.68–85</td>
<td>Teacher's Book 2, pp.86–101</td>
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<td>Make and record observations.</td>
<td>Unit 1: Living things in the environment</td>
<td>• Let's explore! pp.2–3</td>
<td>• The weather pp.10–11</td>
<td>Unit 2: Materials</td>
<td>• Disappearing acts pp.24–5</td>
<td>Teacher's Book 2, pp.16–31</td>
<td>Teacher's Book 2, pp.32–49</td>
<td>Teacher's Book 2, pp.50–67</td>
<td>Teacher's Book 2, pp.68–85</td>
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<tr>
<td>Use a variety of ways to tell others what happened.</td>
<td>Unit 1: Living things in the environment</td>
<td>• Let's explore! p.3</td>
<td>• Grouping animals p.7</td>
<td>Unit 2: Materials</td>
<td>• Natural or not? p.19</td>
<td>Teacher's Book 2, pp.16–31</td>
<td>Teacher's Book 2, pp.32–49</td>
<td>Teacher's Book 2, pp.50–67</td>
<td>Teacher's Book 2, pp.68–85</td>
<td>Workbook 2, pp.12–30</td>
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<td>Make comparisons.</td>
<td>Unit 4: Electricity</td>
<td>• What is a circuit? pp.44–5</td>
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<td>Teacher's Book 2, pp.68–85</td>
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<td>Identify simple patterns and associations.</td>
<td>Unit 1: Living things in the environment</td>
<td>• The weather pp.10–11</td>
<td>• Electricity p.45</td>
<td>Unit 4: Electricity</td>
<td>• What is a circuit? pp.44–5</td>
<td>Teacher's Book 2, pp.16–31</td>
<td>Teacher's Book 2, pp.68–85</td>
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<td>Workbook 2, pp.26–30</td>
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<td>Talk about predictions (orally and in text), the outcome and why this happened.</td>
<td>Unit 2: Materials</td>
<td>• Hard as nails? p.17</td>
<td>• Disappearing acts p.25</td>
<td>Unit 3: Light and dark</td>
<td>• Exploring shadows p.37</td>
<td>Teacher's Book 2, pp.32–49</td>
<td>Teacher's Book 2, pp.50–67</td>
<td>Teacher's Book 2, pp.68–85</td>
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<td>Workbook 2, pp.26–30</td>
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<td>Review and explain what happened.</td>
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<td>• Unit 1: Review p.12</td>
<td>• Unit 2: Review p.26</td>
<td>Unit 3: Light and dark</td>
<td>• Unit 3: Review p.40</td>
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<td>Workbook 2, pp.26–30</td>
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<td><strong>Science Area</strong></td>
<td><strong>Unit</strong></td>
<td><strong>Teacher’s Book</strong></td>
<td><strong>Workbook</strong></td>
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<td><strong>Unit 4: Electricity</strong></td>
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<td>Unit 4: Electricity</td>
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<td><strong>Teacher’s Book 2, pp.68–85</strong></td>
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<td>Unit 4: Review p.54</td>
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<td><strong>Teacher’s Book 2, pp.86–101</strong></td>
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<td><strong>Teacher’s Book 2, pp.16–31</strong></td>
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<td>Unit 5: Review p.66</td>
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<td><strong>Teacher’s Book 2, pp.16–31</strong></td>
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### Biology

**Biology: Living things in their environment**

- Identify similarities and differences between local environments and know about some of the ways in which these affect the animals and plants that are found there.
- Understand ways to care for the environment. Secondary sources can be used.
- Observe and talk about their observation of the weather, recording reports of weather data.

**Unit 1: Living things in the environment**

- **Unit 1: Living things in the environment**
  - Let's explore! pp.2–3
  - Grouping animals pp.6–7
- **Unit 1: Living things in the environment**
  - Caring for our environment pp.8–9
- **Unit 1: Living things in the environment**
  - The weather pp.10–11

**Unit 2: Materials**

- **Unit 2: Materials**
  - What are rocks? pp.14–15
  - Natural or not? pp.18–19
- **Unit 2: Materials**
  - All change! pp.20–1
  - Heating up pp.22–3
- **Unit 2: Materials**
  - Disappearing acts pp.24–5

**Unit 3: Light and dark**

- **Unit 3: Light and dark**
  - Source of light pp.28–9
  - Our Sun pp.30–1
- **Unit 3: Light and dark**
  - Using light pp.32–3
- **Unit 3: Light and dark**
  - Shady shadows pp34–5
  - Exploring shadows pp36–7
  - Changing shadows pp38–9

**Unit 4: Electricity**

- **Unit 4: Electricity**
  - What is a circuit? pp44–5
  - Making models pp48–9
  - Circuit pictures pp50–1
- **Unit 4: Electricity**
  - Spinning around pp58–9
  - Moving shadows pp60–1

**Unit 5: Earth and beyond**

- **Unit 5: Earth and beyond**
  - Night and day pp64–5
- **Unit 5: Earth and beyond**
  - Spinning around pp58–9
  - Moving shadows pp60–1

**Unit 5: Earth and beyond**

- **Unit 5: Earth and beyond**
  - Night and day pp64–5
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- **Unit 3: Light and dark**
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  - Moving shadows pp60–1
- **Unit 5: Earth and beyond**
  - Spinning around pp58–9
  - Moving shadows pp60–1