

---

**SCIENCE**

**1113/02**

Paper 2

**For Examination from 2012**

SPECIMEN MARK SCHEME

**45 minutes**

---

**MAXIMUM MARK: 50**

---

This document consists of **5** printed pages and **1** blank page.



| Question     | 1        |                          |                     |
|--------------|----------|--------------------------|---------------------|
| Part         | Mark     | Answer                   | Further Information |
| (a)          | 1        | indicators               |                     |
| (b)          | 1        | blue                     |                     |
| (c)          | 1        | purple                   |                     |
| (d)          | 1        | sodium hydrogencarbonate |                     |
| <b>Total</b> | <b>4</b> |                          |                     |

| Question     | 2        |  |  |
|--------------|----------|--|--|
| Part         | Mark     | Answer   | Further Information  |
| (a) (i)      | 3        | 6 correctly drawn bars   | 6 correct bars = 3 marks<br>4 or 5 correct bars = 2 marks<br>2 or 3 correct bars = 1 mark<br>0 / 1 correct bars = 0 mark |
| (ii)         | 1        | 20   |  |
| (b)          | 1        | second two boxes ticked  | if first box ticked = 0 mark<br>both correct = 1 mark  |
| (c)          | 2        | idea of colonising new areas<br><br>idea of reducing competition |  |
| <b>Total</b> | <b>7</b> |  |  |

| Question     | 3        |  |  |
|--------------|----------|--|--|
| Part         | Mark     | Answer   | Further Information                        |
| (a)          | 1        | The Earth spins on its axis once every 24 hours. |  |
| (b)          | 1        | both Luca and Anya                               |  |
| (c)          | 1        | Earth and Jupiter underlined                     | if three or more names underlined = 0 mark |
| <b>Total</b> | <b>3</b> |  |  |

| Question     | 4        |        |                     |
|--------------|----------|--------|---------------------|
| Part         | Mark     | Answer | Further Information |
| (a)          | 1        | D      |                     |
| (b)          | 1        | A      |                     |
| (c)          | 1        | B      |                     |
| <b>Total</b> | <b>3</b> |        |                     |

| Question     | 5        |   |  |
|--------------|----------|---|--|
| Part         | Mark     | Answer  | Further Information  |
| (a)          | 2        | has steel wire /<br>should have copper wire<br><br>introduces another<br>variable / changing too<br>many things                               |  |
| (b) (i)      | 2        | table has 2 ruled rows and<br>7 ruled columns (or vice<br>versa) + each column or<br>row headed with units<br>all values correctly<br>entered | all correct = 2 marks<br>2 errors = 1 mark<br>more than 2 errors = 0 mark<br>accept converse |
| (ii)         | 1        | the more coils, the greater<br>the mass of iron filings   |  |
| (iii)        | 1        | 15 coils/23 g   |  |
| (iv)         | 1        | repeat the experiment   |  |
| <b>Total</b> | <b>7</b> |   |  |

| Question     | 6        |  |  |
|--------------|----------|--|--|
| Part         | Mark     | Answer   | Further Information                        |
| (a) (i)      | 1        | the wolf is bigger / has a more powerfully built body / larger head / jaws or vice versa | Allow any feature visible on the diagrams. |
| (ii)         | 1        | They are distinct and cannot interbreed. / They do not produce fertile offspring.        |  |
| (b) (i)      | 1        | Variation / diversity  | Accept the converse.                       |
| (ii)         | 2        | Domestic dogs have been bred by people.<br><br>People have selected characteristics.     |  |
| <b>Total</b> | <b>5</b> |  |  |

| Question     | 7        |                  |                     |
|--------------|----------|------------------|---------------------|
| Part         | Mark     | Answer           | Further Information |
| (a)          | 1        | movement/kinetic |                     |
| (b)          | 1        | heat/thermal     |                     |
| (c)          | 1        | light            |                     |
| (d)          | 1        | light            |                     |
| (e)          | 1        | potential        |                     |
| <b>Total</b> | <b>5</b> |                  |                     |

| Question     | 8        |  |                                     |
|--------------|----------|--|-------------------------------------|
| Part         | Mark     | Answer   | Further Information                 |
| (a) (i)      | 2        | cabbage – caterpillar –<br>bird – snake                      | if order reversed = 1 mark          |
| (ii)         | 1        | bird / snake   |                                     |
| (iii)        | 1        | cabbage  |                                     |
| (b)          | 1        | go down (less food) / stay<br>the same (eat other<br>things) | Accept either or both alternatives. |
| <b>Total</b> | <b>5</b> |  |                                     |

| Question     | 9        |                              |                     |
|--------------|----------|------------------------------|---------------------|
| Part         | Mark     | Answer                       | Further Information |
| (a) (i)      | 1        | exothermic                   |                     |
| (ii)         | 2        | sodium hydroxide<br>hydrogen |                     |
| (b)          | 2        | burning<br>neutralisation    | if 3 ticks = 1 mark |
| <b>Total</b> | <b>5</b> |                              |                     |

| Question     | 10       |                                |                     |
|--------------|----------|--------------------------------|---------------------|
| Part         | Mark     | Answer                         | Further Information |
| (a) (i)      | 1        | <b>A</b>                       |                     |
| (ii)         | 1        | <b>B</b>                       |                     |
| (b)          | 1        | heat / warm                    |                     |
| (c) (i)      | 1        | <b>C</b>                       |                     |
| (ii)         | 1        | diffusion                      |                     |
| (iii)        | 1        | they are moving / in<br>motion |                     |
| <b>Total</b> | <b>6</b> |                                |                     |

