

Mark schemes

Q1.

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| (a) combustion | 1 |
| reversible | 1 |
| (b) water molecules break down
and reform at the same rate | 1 |
| (c) Level 3: Relevant points (reasons / causes) are identified, given in detail
and logically linked to form a clear account. | 5–6 |
| Level 2: Relevant points (reasons / causes) are identified, and there are
attempts at logical linking. The resulting account is not fully clear. | 3–4 |
| Level 1: Points are identified and stated simply, but their relevance is
not clear and there is no attempt at logical linking. | 1–2 |
| No relevant content | 0 |

Indicative content**Potable water production**

- pass water through filter beds
- to remove solids

- use chlorine / ozone / UV light
- to sterilise water
- to destroy microbes

Waste water treatment

- screening
- using a metal grid
- to remove solids
- to remove grit

- sedimentation
- to produce sewage sludge and effluent
- anaerobic digestion of sewage sludge
- aerobic biological treatment of effluent

access to **Level 3** requires reference to **both** potable water production
and waste water treatment.