Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

linear: materials flow one way: take, make, use, throw away; circular: products and materials are kept in use as long as possible and waste is designed out

2.2

(a) reuse

(b) refuse

2.3

repair keeps the product and all its embodied energy in use; recycling saves only the material, and needs energy to collect and reprocess it

3.1

(a) any two, outlined: standard screws instead of glue, so parts come apart with a common screwdriver; separate modules (battery, screen, camera), so one part can be replaced without the others; parts marked with their material, so they can be sorted for recycling

(b) user: a worn battery can be replaced cheaply instead of buying a new phone; environment: the phone stays in use for longer, so its embodied energy and materials are not wasted / less e-waste

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