

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL General Certificate of Education Ordinary Level

DESIGN AND TECHNOLOGY

4053/2

Paper 2 Design Practical

SPECIMEN PAPER

No additional materials are required.

INSTRUCTIONS TO CANDIDATES

Attempt one option only.

This question paper consists of 2 printed pages.

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General Notes

Teachers should refer to section **9.2** of the syllabus explaining the **Design Project** and to the notes for guidance.

Candidates should choose one project from the two options (1 or 2) given below and produce:

- (i) a detailed A3 Design Folio showing the development of the design process, from the situation through to the plans for the solution. Costing and the final evaluation of the project should appear in the folio,
- (ii) a well constructed mock-up/model of the chosen solution, in any suitable material, and
- (iii) a well constructed artefact of the chosen solution.

Option 1

Situation

Some people like to read whilst in bed but they experience some difficulties in getting comfort.

Brief

Design and make an adjustable artefact that will support the reading material while in bed.

Option 2

Situation

The agriculture department at your school runs a poultry project. A visit to the fowl run has indicated that chickens drink water from a bowl. The problem is that the water consistently gets soiled and wasted as chickens fly and jump into the bowl.

Brief

Design and make a scaled unit that can contain a minimum of **three** litres of water and has minimal space in order to prevent chickens jumping in. Furthermore, the unit should have technology that allows water to gradually flow in when the water level gets below **30 mm** in the drinking unit.

N.B. Candidates are also encouraged, where possible and relevant, to combine different materials e.g. wood and metal or plastic in realising their designs.

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