

NAMIBIA SENIOR SECONDARY CERTIFICATE

DESIGN AND TECHNOLOGY ORDINARY LEVEL

4129/2

PAPER 2

1 hour 45 minutes

Marks 60

2017

Additional Materials: A3 drawing paper
Non-programmable calculator
Standard drawing equipment

INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Answer on the separate A3 drawing paper provided.
- Write your Centre Number, Candidate Number and Name on all the work you hand in.
- Do not use correction fluid.

- There are **three** questions in this Question Paper.
- Answer **one** question only.

- At the end of the examination, fasten all your work securely together.
- The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 4 printed pages.



Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

There are **three** questions in this paper.

Answer **one** question on the A3 drawing paper provided.

1 Design Communication

A competition for students to raise awareness of the need to save water is to be launched by your town council.



Design a poster to be put on the walls of the town hall and some shops that will focus on the need to save water.

- (a) List **four** points about the appearance of such a poster that are important. [4]
- (b) Use graphics to show **two** possible letter styles that could be used on the poster. [4]
- (c) Explore and sketch **three** ideas for the poster. [15]
- (d) Evaluate your ideas in (c) and justify the selection of the idea you have chosen to develop. [8]
- (e) Draw, using any suitable method, your final design solution. Include all major details and graphics. [18]
- (f) Describe how the use of computers could assist in the design of such a product. [4]
- (g) Use sketches and notes to describe how your solution could be made in a school workshop. [7]

[60]

2 Resistant Materials

Some people still water their garden with a garden hose which can often become tangled and untidy when not in use.



Design a storage device for a hose that can be moved about easily.

- (a) List **four** additional specification points for such a device that are important. [4]
- (b) Use sketches and notes to show **two** methods of connecting lengths of hose together. [4]
- (c) Explore and sketch **three** ideas for such a storage device in (a). [15]
- (d) Evaluate your ideas in (c) and justify the selection of the idea you have chosen to develop. [8]
- (e) Draw, using any suitable method, your final design solution. Include dimensions and construction details. [18]
- (f) Suggest suitable materials for your solution and give reasons for your choice. [4]
- (g) Use sketches and notes to describe how your solution could be made in a school workshop. [7]

[60]

3 Technology

Many plants only require watering at a certain time and for a set period. Continuous use of a hose can waste water.



Design a system that will supply water to plants for a controlled period at a particular time.

- (a) List **four** points about the function of the device that are important. [4]
- (b) Use sketches and notes to show two mechanical and/or electronic systems that could be used in the device. [4]
- (c) Explore and sketch **three** ideas for such a device. [15]
- (d) Evaluate your ideas in (c) and justify the selection of the idea you have chosen to develop. [8]
- (e) Draw, using any suitable method, your final design solution. Include dimensions and construction details of the device. [18]
- (f) Suggest suitable materials and other components for your solution and give reasons for your choice. [4]
- (g) Use sketches and notes to describe how your solution could be made in a school workshop. [7]

[60]