



Cambridge International Examinations
Cambridge Ordinary Level

CDT: DESIGN AND COMMUNICATION

7048/02

Paper 2 Design Project

October/November 2018

INFORMATION FOR THE EXAMINATION IN 2018

READ THESE INSTRUCTIONS FIRST

You are required to spend two terms designing and realising possible solutions to **one** of the following design situations. Wherever possible you should apply your chosen design situation to an actual location in your local area. **Remember that this is coursework and you may seek guidance from your teacher in developing your design work.**



This document consists of **11** printed pages and **1** blank page.

- 1** Consider the situation where a craftsperson requires a portable market stall from which they will sell the products that they make.

Research:

- (a) the design and construction of existing portable market stalls;
- (b) possible products that the craftsperson could make and sell.

Identify the products that the craftsperson will make and sell and collect some information about them.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of designs for a portable market stall.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a model of the portable market stall.

Produce a working drawing of the portable market stall.

Produce a comprehensive plan for making a model of the portable market stall.

Produce a model of the portable market stall. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the portable market stall. Suggest and justify any appropriate improvements.

- 2** Consider the situation where a wildlife park or zoo requires a box in which to sell children's lunches. The box will be made from card.

Research:

- (a)** the design and construction of existing children's lunch boxes made from card;
- (b)** possible items that the lunch box could contain.

Identify the items that the lunch box will contain and collect some information about them.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of designs for a child's lunch box.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a prototype of the child's lunch box.

Produce a working drawing of the child's lunch box.

Produce a comprehensive plan for making a prototype of the child's lunch box.

Produce a prototype of the child's lunch box. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the child's lunch box. Suggest and justify any appropriate improvements.

- 3** Consider the situation where a wind-powered sculpture is to be built in a public place.

Research:

- (a)** the design and construction of existing wind-powered sculptures;
- (b)** possible themes on which the sculpture could be based.

Identify a suitable theme on which you will base your work and collect some information about it.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of designs for a wind-powered sculpture.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a model of the wind-powered sculpture.

Produce a working drawing of the wind-powered sculpture.

Produce a comprehensive plan for making a model of the wind-powered sculpture.

Produce a model of the wind-powered sculpture. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the wind-powered sculpture. Suggest and justify any appropriate improvements.

- 4 Consider the situation where your school or college is to award a trophy and certificate to the best student in each subject.

Research:

- (a) the design and construction of existing school trophies and certificates;
- (b) possible school subjects on which you could base your work.

Identify a subject on which you will base your work and collect some information about it.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of designs for both a trophy and a certificate.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a model of the trophy and a prototype of the certificate.

Produce working drawings of both the trophy and the certificate.

Produce a comprehensive plan for making a model of the trophy and a prototype of the certificate.

Produce a model of the trophy and a prototype of the certificate. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully both the trophy and the certificate. Suggest and justify any appropriate improvements.

- 5 Consider the situation where a portable display board is required by a restaurant. The display board will stand outside the restaurant and show special offers that are available to its customers.

Research:

- (a) the design and construction of existing portable display boards used by restaurants;
- (b) possible restaurants on which you could base your work.

Identify a restaurant on which you will base your work and collect some information about it.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of ideas for a portable display board.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a model of the portable display board.

Produce a working drawing of the portable display board.

Produce a comprehensive plan for making a model of the display board.

Produce a model of the portable display board. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the portable display board. Suggest and justify any appropriate improvements.

- 6 Consider the situation where a company that manufactures novelty items is to produce a range of watches made from paper. Each watch will be packaged in a blister pack.

Research:

- (a) the design and construction of existing paper watches and blister packs;
- (b) possible digital displays that could be used in a paper watch.

Identify a digital display on which you will base your work and collect some information about it.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of ideas for a paper watch and a blister pack.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make prototypes of both the paper watch and the blister pack.

Produce working drawings of both the paper watch and the blister pack.

Produce a comprehensive plan for making prototypes of both the paper watch and the blister pack.

Produce prototypes of both the paper watch and the blister pack. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully both the paper watch and the blister pack. Suggest and justify any appropriate improvements.

- 7 Consider the situation where a hotel is to build a small splash park for children.

Research:

- (a) the design and construction of existing splash parks;
- (b) possible sites for the splash park.

Identify a site for the splash park and collect some information about it.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of ideas for a splash park.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a model of the splash park.

Produce a working drawing of the splash park.

Produce a comprehensive plan for making a model of the splash park.

Produce a model of the splash park. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the splash park. Suggest and justify any appropriate improvements.

- 8** Consider the situation where a company that manufactures toys is to produce a dolls house. The dolls house will be made in flat pack form from a thin sheet material.

Research:

- (a)** the design and construction of existing dolls houses;
- (b)** possible sheet materials from which the dolls house could be made.

Identify a sheet material and collect some information about how the parts of the dolls house could be joined together and easily taken apart.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of ideas for a dolls house.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a prototype of the dolls house.

Produce a working drawing of the dolls house.

Produce a comprehensive plan for making a prototype of the dolls house.

Produce a prototype of the dolls house. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the dolls house. Suggest and justify any appropriate improvements.

- 9** Consider the situation where your school or college is to encourage students to recycle batteries and ink cartridges by providing containers in which the used items can be placed. Each container will be made from corrugated cardboard and have two sections, one for batteries and one for ink cartridges.

Research:

- (a)** the design and construction of existing recycling containers;
- (b)** possible symbols, slogans and information that could be used on recycling containers.

Identify the symbols, slogans and information that you will use on the recycling container and collect some details about them.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of ideas for a recycling container to hold batteries and ink cartridges.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make a prototype of the recycling container.

Produce a working drawing of the recycling container.

Produce a comprehensive plan for making a prototype of the recycling container.

Produce a prototype of the recycling container. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully the recycling container. Suggest and justify any appropriate improvements.

- 10** Consider the situation where a publisher of children's story books is to include a kit for making finger puppets with each book it sells. Each kit will consist of an A3 sheet of card on which are printed the parts that will need to be cut out and glued together to make two finger puppets. The sheet will also include instructions on how to make the two finger puppets. The finger puppets will be based on two of the main characters featured in the book.

Research:

- (a)** the design and construction of existing finger puppets made from card;
- (b)** possible books that you could base your work on.

Identify a book and collect some information about two of the main characters featured in the book.

Use the results of your research to help you write a detailed specification.

Produce and evaluate a range of ideas for a kit to make two finger puppets.

Carry out tests and trials to establish the construction and joining methods, materials and dimensions that you will use to make prototypes of both the kit and the two assembled finger puppets.

Produce working drawings of both the kit and the two assembled finger puppets.

Produce a comprehensive plan for making prototypes of both the kit and the two assembled finger puppets.

Produce prototypes of both the kit and the two assembled finger puppets. Use photographs and notes to record the making process.

Use the specification points and appropriate user testing to evaluate fully both the kit and the two assembled finger puppets. Suggest and justify any appropriate improvements.

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