

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
DESIGN AND TECHNOLOGY (PRODUCT DESIGN)**

B802/IC

Unit 2: Designing and Making Innovation Challenge

PRE-RELEASE INFORMATION FOR EXAMINATIONS

To be opened on receipt

JANUARY and JUNE 2009



INSTRUCTIONS TO CENTRES

- The information contained within this pre-release material is designed to allow centres to carry out the following tasks:
 - Assemble a handling collection linked to the chosen situation. The 'handling collection' may consist of existing products or pictures, video etc relating to the situation.
 - Assemble an 'inspirational table' which shows examples of products with interesting features or capabilities. These may not necessarily be linked to the situation.
 - Develop a range of modelling/prototyping materials that will be suitable for the chosen situation/s. The structure of the examination allows staff/students to obtain additional materials/ingredients between session one and session two if required.
- OCR places no restrictions on the nature of the collection provided to candidates. It is essential, however, that the items, whilst being appropriate, are not, by their very nature, suitable for copying by the candidates in order to provide a workable solution to the challenge.
- On the day of the examination 'further supplementary information' will be given in italics. Students will need to respond to this information when undertaking the innovation challenge activity. Marks will be rewarded accordingly.
- This document consists of **4** pages. Any blank pages are indicated.

The situation:

A Day on the Beach

As part of their holiday many families enjoy spending time on the beach. Throughout a day, the family might want to:

- sunbathe
- swim
- sit in the shade
- keep out of the wind
- eat and drink
- play

A company called “**Beach Aid**” has decided to develop a new range of innovative products that could be used to transport one or some of the items needed for a day on the beach from the car/coach park, hotel, apartment, caravan or tent. The distances can be quite far and some of the items required are heavy and awkward to carry over grass and sand.

The items a family might carry to the beach include the following:

Beach bags, cool box / picnic basket, towels, swimming costumes, sun hats, sun shade, sun lotion, valuable personal items, wind break, lilo, beach chairs, picnic rug, bucket and spade, bats and balls, kite, surf board, books, etc.

You are to design and model a product that could transport one or some of these items easily to the beach.

Your design **should** include:

- the possibility of being multi-functional;
- the reduction of the number of individual items that have to be carried; or
- the redesign of an item to be more compact.

Further supplementary information will be given on the day of the examination

The situation:

Travel

Overseas travel has become more popular with families. However, entertaining children on long journeys can be difficult. The ability to take toys, books, electronic games etc. is often limited due to the problems of storage or restrictions imposed by the transport operator.

A company called “**Travel King**” has identified an opportunity to supply ‘entertaining food’ to the travel industry. They wish to develop a new range of creative food ideas that could provide both entertainment and nutritious meals or snacks for children when travelling.

The creative food ideas should consider:

- food and/or drink;
- the use of both fruit and vegetables as part of a healthy eating plan;
- avoiding the inclusion of large amounts of sugar, fat or salt;
- appropriate packaging.

In addition to providing a meal or snack for children the product should provide entertainment, such as:

- a game;
- a puzzle;
- a story; or
- an art activity.

Further supplementary information will be given on the day of the examination

The situation:

Outdoor Environment

Leisure time is important to all of us. Many people spend long periods of time relaxing in the outdoor environment. Gardening has always been a popular past time. Gardens are now often 'multi-functional' areas where people:

- grow fruit and vegetables
- grow flowers and other plants to enhance visual appearance
- have seating or eating areas
- have children's entertainment areas

A company called "**Leisure Star**" has decided to develop a new range of innovative garden products which are supplied ready to assemble.

You are to design and model a product for the company "Leisure Star".

Your product should:

- be easy to assemble and use;
- require no specialist tools or knowledge to assemble the product;
- be suitable for the environment in which it will be used.

Your product could be used by:

- children;
- teenagers; or
- adults.

Further supplementary information will be given on the day of the examination

The situation:

Entertainment

Things are not always what they seem!

Delight often comes from discovering an element of surprise, something unusual, clever, or unexpected about a product.

Something that is not always obvious at first glance, can really add additional interest and fun to the product.

A company called "**Take Another Look**" wishes to develop a new range of creative products to be sold in their high street shops.

The products could be used to entertain toddlers, children, teenagers or adults.

The purpose of these products could be any of the following:

- be challenging;
- be humorous;
- have a surprise element; or
- have a secretive element.

You are to design and model a product for the company "Take Another Look".

You should base your designs around:

- a theme e.g. a sport, hobby, other interest;
- an occasion e.g. a birthday, a wedding, a religious festival etc.; or
- an environment e.g. the seaside, the moon, the zoo etc.

Further supplementary information will be given on the day of the examination

Notes:



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