

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

**B802/TS**

Unit 2: Designing and Making Innovation Challenge

**TASK SHEET**

**JUNE 2008**

**To be opened on the day of the examination  
between 15th May 2008 and 23rd June 2008**



**INSTRUCTIONS TO CANDIDATES**

You will have a total of 6 hours to complete the examination. This is normally 2 x 3 hours sessions.

At the end of the examination you must have:

- ✓ selected one of the challenges detailed on this paper;
- ✓ completed an answer booklet showing your creative thinking and how your idea works;
- ✓ produced a model/prototype to show the important features of your design;
- ✓ have at least four photographs fixed in your workbook showing your modelling activities;
- ✓ produced a persuasive argument about why your product will attract the users you are aiming at;
- ✓ completed the "Reflection" section of the workbook at some time between 24 and 72 hours after completion of the challenge; and
- ✓ ***considered within your design the supplementary information, detailed in italics, for your selected challenge.***

This document consists of 4 printed pages.

## A Day on the Beach

The situation:

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, windbreak, lilo, beach chairs, picnic rug, bucket and spade, bats and balls, kite, surfboard, 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; or
- the reduction of the number of different things that have to be carried; or
- the redesign of an item to be more compact.

**YOU MUST ALSO CONSIDER THE FOLLOWING SUPPLEMENTARY INFORMATION. MARKS WILL BE AWARDED ACCORDINGLY.**

- ***Your design should allow a child to easily locate its family on a crowded beach.***

## Travel

The situation:

Overseas travel has become more popular with families. However, feeding and occupying children on long journeys can be difficult.

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

Travel King products:

- use fresh fruit and vegetables;
- avoid the inclusion of large amounts of sugar, fat and salt; and
- are conveniently packaged.

**You are to design and model a product for the company Travel King that could be eaten on the move. In addition to providing nutrition your product should provide interest in the form of a:**

- game; or
- puzzle; or
- story.

**YOU MUST ALSO CONSIDER THE FOLLOWING SUPPLEMENTARY INFORMATION. MARKS WILL BE AWARDED ACCORDINGLY.**

- ***Your design should be educational.***

## Rainwater

The situation:

Water is becoming more scarce.

A company called “**Rain Joy**” has decided to develop a new range of innovative products that utilises rainwater.

These products could have elements of surprise in them.

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

- watering plants;
- powering garden ornaments;
- providing energy; or
- entertainment and enjoyment.

**You are to design and model a product for the company “Rain Joy” that uses/re-uses rainwater.**

You should consider the whole system when you design the product, including how the water needs to be stored if appropriate.

You should choose **one** suitable context from:

- the home;
- the garden;
- a city park;
- a town centre;
- a sports ground; or
- any other outdoor activity or energy production.

**YOU MUST ALSO CONSIDER THE FOLLOWING SUPPLEMENTARY INFORMATION. MARKS WILL BE AWARDED ACCORDINGLY.**

- ***Your design should create noise.***

## Entertainment

The situation:

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**” wish to develop a new range of creative products to be sold in their high street shops.

The products could be 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 **one** of the following:

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

**YOU MUST ALSO CONSIDER THE FOLLOWING SUPPLEMENTARY INFORMATION. MARKS WILL BE AWARDED ACCORDINGLY.**

- ***Your design should use rotary motion.***

**Notes:**

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