



## GENERAL CERTIFICATE OF SECONDARY EDUCATION

### DESIGN AND TECHNOLOGY

#### PRODUCT DESIGN

Designing and Making Innovation Challenge

**A552/TS**

#### TASK SHEET

**JUNE 2010**



**To be opened on the day of the examination  
between 1 May 2010 and 23 June 2010**

#### MODIFIED LANGUAGE

##### INSTRUCTIONS TO CANDIDATES

You will have a total of 6 hours to complete the examination in  $2 \times 3$  hour 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;
- at least **four** photographs fixed in your workbook showing your modelling, trialling and prototyping activities;
- completed the 'Time to Reflect' section of the workbook at some time between 24 and 72 hours after completion of the challenge.

##### INFORMATION FOR CANDIDATES

- This document consists of **2** pages. Any blank pages are indicated.

## SCHOOL SPORTS DAY

**Situation:**

Some students do not take part in the sporting events at a school sports day.

There are many ways to involve these students in the event.

Select one challenge from the list below for which you will design and manufacture a prototype solution.

**Challenge 1 ‘Temporary Signs’**

The sports day attracts many visitors to the school. Visitors often do not know their way round the school. The school will need temporary signs to direct visitors around the school. The signs must be easy to put up and easy to store.

**Challenge 2 ‘Snack Pack’**

Local primary school pupils have been invited to attend the sports day. These pupils will be given a nutritious drink and snack pack. The pack should have a sporting theme. It should encourage the pupils to watch each of the sports events.

**Challenge 3 ‘Temporary Shelter’**

The judges at the sports day event need to move to different parts of the sports field for different events. Sunshine and showers are expected. The school needs to provide portable, temporary shelter for the judges.

**Challenge 4 ‘Measurement and Display’**

In one of the races the competitors will carry liquid over a number of obstacles during a set time period. The school needs a way of measuring the quantity of liquid that competitors carry successfully, and also a way of displaying the result.



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