

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**A552/TS**

**DESIGN AND TECHNOLOGY  
PRODUCT DESIGN**

**Designing and Making Innovation Challenge**

**TASK SHEET**

**JUNE 2010**

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

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

**You will have a total of 6 hours to complete the examination in 2 × 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.**

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## **SCHOOL SPORTS DAY**

### **SITUATION:**

**On a school sports day, not all students participate in the sporting events.**

**The opportunities for these students still to be involved and support the event and its arrangements are numerous.**

**From the lists of challenges below select ONE challenge for which you will design and manufacture a prototype solution.**

### **Challenge 1 'Temporary Signs'**

**The sports day attracts many visitors to the school. Visitors are often unfamiliar with the layout of the school. Temporary signs to direct visitors around the school site that are easy to erect and store are required.**

### **Challenge 2 'Snack Pack'**

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

### **Challenge 3 'Temporary Shelter'**

**The judges at the sports day event need to move around the sports field for different events. Weather conditions are going to be changeable. Sunshine and showers are expected. A method of providing portable, temporary shelter for the judges is required.**

### **Challenge 4 'Measurement and Display'**

**One of the races will involve carrying liquid over a number of obstacles during a set time period. A method of measuring the quantity of liquid that is successfully carried by competitors and displaying the result is required.**

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