

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE**

A552/01/TS

DESIGN AND TECHNOLOGY

PRODUCT DESIGN

**Designing and Making
Innovation Challenge**

TASK SHEET

JUNE 2016

**To be opened on the day of the examination
between 1 April 2016 and 21 June 2016**

MODIFIED ENLARGED

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

You will have 6 hours in two 3 hour sessions (plus your additional time allowance), plus 30 minutes (plus your additional time allowance) to reflect on design ideas, to complete the examination.

At the end of the examination you must have:

selected ONE of the challenges detailed on this task sheet;

completed a workbook 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 'Reflection' section of the workbook between 24 and 72 hours after the completion of the challenge.

INFORMATION FOR CANDIDATES

Any blank pages are indicated.

INSTRUCTION TO EXAMS OFFICER/INVIGILATOR

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SPORT AND FITNESS

SITUATION:

Participating in sports and fitness activities has been seen to have significant health benefits to adults and children. People are encouraged to lead healthy lifestyles and often join gyms, exercise classes and undertake sporting activities.

From the list of challenges below select ONE challenge for which you will design and make a model/prototype solution.

CHALLENGE 1 ‘Outdoor Fitness Equipment for Children’

Children are often not allowed to join gyms. A local council wishes to install some fitness equipment suitable for use by children in its parks. A design for a piece of children’s outdoor fitness equipment is required.

CHALLENGE 2 ‘Gym Clothing’

Looking good as well as feeling good is important to many people when undertaking exercise. A design for functional and fashionable gym clothing is required.

CHALLENGE 3 ‘Activity Timer’

People participating in a high intensity gym session require a visible and audible timing device. The device should allow times to be set for interval training and have count up and down functions.

CHALLENGE 4 'Vending Machine Snack'

To encourage healthy eating a sports centre wishes to stop selling chocolate bars and confectionery in its vending machines. A design for a healthy snack bar suitable for sale from a vending machine is required.

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