

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

GCSE

A552/01/TS

**DESIGN AND TECHNOLOGY
PRODUCT DESIGN**

**Designing and Making
Innovation Challenge**

TASK SHEET

JUNE 2017

**To be opened on the day of the examination
between 3 April 2017 and 21 June 2017**

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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PRE-SCHOOL PLAYGROUP AND EARLY LEARNING

Situation

Cleverclogs pre-school playgroup provides care for children under five years old. The playgroup organises activities which are both educational and fun, where children learn through play.

The playgroup activities include drawing and painting, model making, food preparation and tasting, social play, physical games, singing and role play, story time and also quiet time.

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

Challenge 1 ‘Flat Pack Fun Activity’

Cleverclogs requires a three dimensional (3D) flat pack display that can be quickly assembled when required. Children will use the display, in a fun activity, to measure height, waist, arm length and shoe sizes.

Challenge 2 ‘Healthy Snack’

It is important for pre-school children to eat healthily. Cleverclogs wants to provide a mid-morning snack for the children. The snack must be healthy, easy to distribute to the children and not require any cutlery or plates.

Challenge 3 ‘Messy Play’

Protective clothing is required for the children involved in ‘messy play’ during painting and model making activities. The protective clothing must be capable of fitting playgroup children of different heights and protecting their own clothing from mess and damage.

Challenge 4 ‘Educational Toy’

A toy is needed to encourage pre-school children to learn the basic colours, shapes and numbers. The toy must be fun to play with and be suitable for use on a low table or on the floor.

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