

YOU'RE NOT INVITED!

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Design and make a sleeping place suitable for a soldier

MISSION CONTROL

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
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- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
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- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Design and make a model of a time-keeping device suitable for a spaceman

A WORLD OF BRIGHT IDEAS

- understand how key events and individuals in design and technology have helped shape the world

MECHANISMS – STRUCTURES 1

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Create a frame structure

MECHANISMS – STRUCTURES 2

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Join up frames to create a bridge

MECHANISMS – STRUCTURES 3

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- Design, make and evaluate a three wheeled 'racer'

National Curriculum Objectives = 

ELECTRONICS 1

- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.
- Design, make and evaluate a device to send Morse code signals

ELECTRONICS 2

- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.
- Design, make and evaluate a traffic control system

TEXTILES

- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- Make a cushion following a pattern

National Curriculum Objectives = 