

# DT—Year 6—Fairgrounds

## Design Brief

To design a piece of equipment from a fairground that involves a moving mechanism that is controlled using ICT.



## Vocabulary

fairground	accurately
movement	precision
mechanism	materials
program	drill
monitor	framework
control	tools
ICT	glue
cut	



## Design Skills

- Undertake research to inform design process. This may include surveys and interviews.
- Use prototypes, cross sectional diagrams, exploded diagrams and CAD software to represent diagrams.
- Consider the views of others when evaluating their own work.
- Ensure products have a high quality finish, using art skills where appropriate.
- Justify their decisions about materials and methods of construction.
- Make suggestions on how their design/ products can be improved.
- Use knowledge of inventors, designers, engineers, chefs and manufactures who have developed ground breaking products to create their own innovative designs.

## Mechanical Systems Skills

### Year 5

- Build frameworks to support mechanisms.
- Stiffen and reinforce complex structures.
- Use a glue gun with supervision.
- Join materials using appropriate methods.
- Understand and use mechanical systems such as cams, pulleys and gears.

### Year 6

- Program, monitor and control using ICT.
- Cut wood accurately to 1mm.
- Use a hand drill to drill tight and loose fit holes.
- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood).
- Build frameworks using a range of materials e.g. wood and card.
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape.

## Design Process

### Research

Look at a product to see how it has been made.

### Skills

Practise and learn new skills to make the final product.

### Design

Design the product using knowledge from research and skills learned.

### Prototype

Make the prototype and identify any changes needed for the final design.

### Make

Make the final product using skills learned.

### Evaluate

Evaluate the final product.