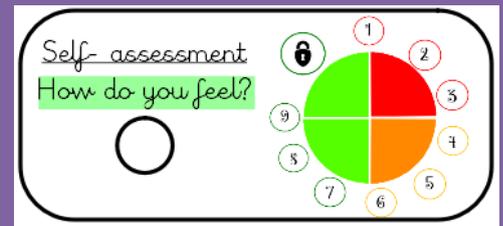


# Year 6

## Design Technology

### Unit One and Two

#### Pulleys or gears



<b>LO: Investigate different fairground rides such as Ferris wheel and carousel</b>		
<b>LO: Introduce materials and discuss what tools would be needed</b>		
<b>LO Investigate how pulleys and gear can change speed and direction of movement</b>		
<b>LO Plan fairground ride including pulleys and/or gears to alter movement</b>		
<b>LO Build and test fairground rides</b>		
<b>LO Evaluate fairground rides, do they meet the design specification?</b>		
<b>What suggestions and tips would you give next years class?</b>		

<b>Designing</b> Generate innovative ideas by carrying out research. • Develop a simple design specification to guide their thinking. • Develop and communicate ideas through discussion, annotated drawings and exploded drawings
<b>Making</b> Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished
<b>Evaluating</b> Compare the final product to the original design specification. • Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. • Investigate famous manufacturing and engineering companies relevant to the project.
<b>Technical Knowledge and Understanding</b> -Understand that mechanical and electrical systems have an input, process and an output. -Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. -Know and use technical vocabulary relevant to the project.

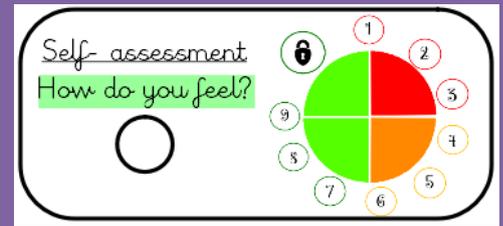
<b>Technical Vocabulary</b> Pulley, drive belt, gear, rotation, spindle, driver follower, axle, motor
<b>Prior Learning</b> • Experience of axles, axle holders and wheels that are fixed or free moving. • Basic understanding of electrical circuits, simple switches and components. • Experience of cutting and joining techniques with a range of materials including card, plastic and wood. • An understanding of how to strengthen and stiffen structures.

Year

Design Technology

Unit Three

Combining Different Fabric Shapes



LO: Research different types of slippers. Dismantle them so they can see the separate pieces flattened out

LO: Think about whom we are designing the slipper for, what would they want their slippers to look like. Carry our research, questionnaires etc. to come up with a popular design

LO: Using the flattened pieces of slipper create a paper template of the different pieces

LO Using the templates cut out the materials into the correct shape.

LO: test different stiches to join the material, is one better than others? Do we need different stiches for different parts of the slipper?

LO: Evaluate the final product, does it meet the design criteria and how could we make it better next time?

#### Technical Vocabulary

seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces  
name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper

#### Prior Learning

-Experience of basic stitching, joining textiles and finishing techniques.  
- Experience of making and using simple pattern pieces

**Designing**

- Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.
- Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes
- Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.

**Making**

- Produce detailed lists of equipment and fabrics relevant to their tasks.
- Formulate step-by-step plans and, if appropriate, allocate tasks within a team.
- Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost.

**Evaluating**

- Investigate and analyse textile products linked to their final product.
- Compare the final product to the original design specification.
  - Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
  - Consider the views of others to improve their work

**Technical Knowledge and Understanding**

- A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.
- Fabrics can be strengthened, stiffened and reinforced where appropriate.