Great Meols Primary School - Design and Technology		
Pulleys and Gears	**Year Six**	**Fairgrounds**

Real life examples

- Mechanisms are parts that make something work. They are all around us and there are a set of related mechanisms used to create movement, this is called a mechanical system. One example of a mechanical system is using gears and pulleys.
- Gears are toothed wheels that lock together and turn one another. When one gear is turned the others turn as well
- Pulleys ae like gears but the wheels do not lock together. The wheels are instead joined together by a drive belt. Pulleys can be used to affect the speed, direction or force of a movement.
- A real life example of a mechanical system that uses gears and pulleys is fairground rides:

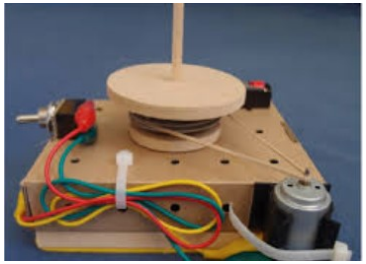
Steps to Success

Designing:

Who is going to use your product? What is the purpose?
What equipment will you need?
What electrical and mechanical components will you use?
What constraints are you working to?
How will you make the shell structure?
How will you make it look attractive and fun? What colours will you use?
What order will you work in?

Making:

How will you make it move?
How are you going to power your ride?
How will attach your components together?
How will you turn your ride on or of?
Do I need to change anything?



Evaluating:

How well does your mechanical system work? Does it move smoothly?
Does everything stay together? Does your design meet the design brief?

Vocabulary:

Belt system	A loop of flexible material used to link two or more rotating shafts mechanically.
Circuit Diagram	A scientific drawing using symbols to represent electrical components.
Driver	A part in a mechanism that receives power directly and transmits motion to the other parts.
Program	A series of coded instructions to control the operation of a computer or object.
Electrical Circuit	A roughly circular route that starts and finishes at the same place.
Framework	An essential supporting structure of a building, vehicle or object.
Motor	A machine that supplies motive power for a vehicle or other device.
Pulley system	A wheel on an axle or shaft that is designed to support movement and change of direction.
Rotation	The act of turning about a centre.
Transfer	To move from one place to another.

Golden Threads	
User	who the product is for
Purpose	the job your product is supposed to do
Functionality	to do the job (purpose) it is meant to do
Design Decisions	making choices about your design
Innovation	using your own ideas or methods
Authentic	making a real life product