

<u>Year Group: 6</u>	<u>Topic: DT</u>	<u>Term: Spring 2</u>	<u>Main Focus: - Mechanical Systems - Pulleys</u>
<u>Rationale For Topic:</u> This topic leads on from mechanical systems such as levers and linkages. We will use pulleys to create a carousel or ferris wheel as a toy for a younger child. We will be making the toy out of card, straws and other supportive materials.			
<u>Lesson Number</u>	<u>Learning Objective (s):</u>	<u>Success Criteria:</u>	<u>Brief outline / reasoning for sequence</u>
1	Investigate and evaluate: To investigate how mechanical toys work.	To understand how mechanical systems work in a product.	To open up mechanical toys that use pulley systems and other mechanical systems. We will look at how different toys work. I will try and get different toys for the children to investigate.
2	Focussed task: To build a pulley system.	To use pulleys to move other parts of the system	Children will use pulleys to move these systems. We will assess what we could do with a pulley system and move this towards the subject of toys.
3	Focussed task: To investigate how the size of pulleys affects speed.	- To investigate changes in systems and how they react. - To investigate speeds and find appropriate speeds for a product.	Children will have pulley discs of different sizes and use them to create systems. We will assess how these different speeds can affect a toy and why you may need a pulley that is either faster or slower.
4	Design: To design a fair ride that uses a pulley system.	To design using appropriate materials.	To design a Ferris wheel or carousel using simple materials, but inserting a mechanical pulley system in order for it to be wound.

		• To find how to integrate mechanical systems into a product.	
5	Make: Make the carousel or Ferris wheel.	• To follow a design. • To cut, connect and integrate parts of a product.	Children will use their designs to make a product that integrates a mechanical pulley system.
6	Evaluate: To evaluate a product.	• To evaluate a product fairly • To find good and bad points about a product.	We will encourage children to evaluate fairly, as products go through evaluation all the time, whatever the product.