

## STEAM KS4 Engineering unit 2 Overview – Completion date:

You will:

- Learnt to use all the modelling functions of solidworks.
- To be able to model moderately complex parts.
- To be able to create assemblies which move with planned constraints
- To be able to create engineering drawings that are accurate and effective.

<b>Lesson Overview</b> <ol style="list-style-type: none"><li>1. Modelling parts in 3D using basic tools</li><li>2. Modelling parts using more complex tools and reference geometry. Loft, Sweep, Revolve.</li><li>3. Assemblies using simple mates and those which allow constrained movement.</li><li>4. Generate a mechanical assembly in CAD</li></ol>	<b>Key Words</b> <ul style="list-style-type: none"><li>• Part</li><li>• Parametric model</li><li>• Assembly</li><li>• Mate</li><li>• Extrude</li><li>• Revolve</li><li>• CAD</li><li>• CAM</li><li>•</li></ul>
<p>Youtube channel for Tootalltoby will give advice and some great challenges for this unit.</p>	<p><b>Cross curricular</b> Maths skills are key here, the conversions, angles, shapes and circles knowledge will be developed through CAD.</p> <p>Creativity is developed through the problem solving of how to build things in CAD, there are many ways but some are better than others.</p>