

## Y8 Design & Technology Curriculum Summary

<b>Name of unit</b>	Automata
<b>Why do we study this unit?</b>	In the second year of their D&T experience, students hone their workshop skills on the automata project. This builds on the basic workshop knowledge developed in Y7 and introduces mechanisms. Students will learn about levers, cams and types of motion, before applying these to their designs. Workshop time is increasingly independent and students are encouraged to problem solve when faced with mechanical issues.
<b>By the end of the unit, students will be able to....</b>	<p>State how motion can be transferred from one type to another.</p> <p>Link the raw material used in production to common environmental issues.</p> <p>Explain how motion can be converted through mechanisms, specifically cams. Know the three classes of lever.</p> <p>Explain how the frame in the automata project retains its strength. Be able to demonstrate methods for improving the strength and rigidity of structures.</p>
<b>Links to previous units</b>	Y7 Articulated Toy. Y7 Structures.
<b>Key vocabulary</b>	Raw material, Rotary Motion, Linear Motion, Oscillating Motion, Reciprocating Motion, Friction, Automata, Follower, Standard Components, Cam, Push rod, Axle, Adhesive, Profile, Lever, Pivot, The 6R's, Load, Sustainable & Effort.