

KS3 Design and Technology:

Year Group:	Project 1:	Project 2:
7	Mechanical Toy: • Learning about different types of mechanisms and where they are used in the real world. • Learn about linkage mechanisms and use in the real world • How to design and draw. • How to create a working toy with a mechanism • Health and safety within the workshop • Basic Tools within the workshop • Decorating and finishing to make a high quality product. • Critically Evaluating yours and others work.	Mini Light Project: • Learn about basic components in a simple circuit. • Learn about soldering equipment. • Learn about H&S when using the soldering equipment. • Practice using the Soldering Equipment to make a simple circuit
8	Mission to Mars: • Learning what a system is and how systems are used in most man-made objects, including Rovers on Mars. • What motions are and how it relates to the Lego Robots. • What the several classes of Levers are and how to calculate Mechanical advantage. • How to use and programme the Lego Robots using the NXT Mindstorms program.	Sweet Dispenser: • Learn about orthographic drawings and what is included with them. • Learn about the different views that are included on an orthographic drawing; Plan, Front and Side. • Learn what is included in a parts table, this includes; Quantity, Material and Size. • How to use the provided Orthographic Drawings and Exploded Drawings of the Sweet Dispenser to work out how the parts are made and how they are assembled together. • Learn about health and safety when using the workshop. You will understand how to behave in a safe and mature way, ensuring not only your own, but others health, safety and wellbeing. • How to use basic workshop tools and equipment such coping saws, hand files, fret saws/hegna saws, vertical sander, pillar drill and power drill. • How to decorate and finish your Sweet Dispenser to a high standard.
9	Night Light Project: • Learning about how colour can change the perception of how a product feels. • What is primary research and how to measure components that will go into the night light. • How complete secondary research by using Access FM. • Creating a full size model of the night light to test if all components fit in. • How to create a working night light. • Health and safety within the workshop. • Specialist tools and equipment within the workshop needed to complete your night light (Soldering equipment) • Decorating and finishing to make a high quality product. Critically Evaluating yours and others work.	