



ALMOND HILL JUNIOR SCHOOL MEDIUM TERM PLAN

TOPIC TITLE: Moving Mechanisms

YEAR GROUP: 5

TERM: Autumn 2

<p>Vocabulary</p> <p>Innovation Mechanism Strengthen Materials Prototype Surface area Circular Frame Accuracy Tension Functionality Reinforce Adapt / modify Rotary motion Oscillating motion Cam Follower – lever or slider Guide Spacer</p>	<p>Skills</p> <ul style="list-style-type: none"> • Use research and develop design criteria to inform design for products that are fit for purpose • Use results of investigations when developing designs • Use a range of drawing skills, discussion, prototypes to plan and communicate ideas. • Select suitable tools and materials and be able to explain these choices • Make labelled drawing showing specific features • Follow safety procedures and use tools accurately • Begin to measure and mark out more accurately • Cut and join to achieve a high-quality finish • Demonstrate motivation/perseverance to refine and improve products • Evaluate the product against design criteria and make suitable refinements • Begin to seek evaluation from others 	<p>What we already know</p> <ul style="list-style-type: none"> • Conduct research to inform design • How to draw a simple labelled diagram • To make and test a prototype • Chose material from a given choice • Safety rules in class • How to evaluate the success of a product • The design, making of and evaluation of a moving poster in Year 3, using levers and linkages
<p>Application/ Outcomes</p> <ul style="list-style-type: none"> • Research CAMs moving toys • Design toy based on success criteria • Explore Tinkercard • Make prototype (just mechanism) on Tinkercad • Evaluate and re-design • Make • Evaluate own and others work 	<p>Concepts</p> <ul style="list-style-type: none"> • Innovation of moving mechanisms • The forces which allow kites to stay in the air • Investigating and that different materials are used for different purposes • Designing a product for a specific purpose in mind • Testing a product against a set of criteria • Evaluating a product for functionality and making necessary adaptations / refinements to improve its function 	
<p>Other/Cross Curricular Links</p> <p>Maths – measurement/shape History – inventions (flight) SEND Adaptations – word-banks, image-mats, mixed ability pairings, varying outcomes, simplified resources for planning / evaluation</p>		