

Year 5 – Autumn Term Themes

Earth and Beyond – Space: The Final Frontier	Transformers – May the forces be with you!
<p>Science, Design & Technology: Construction</p>	<p>Science</p>
<p>Science: Earth and Space</p> <ul style="list-style-type: none"> Describe the movement of the Earth, and other planets, relative to the Sun in the Solar System. Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky 	<p>Science: Forces</p> <ul style="list-style-type: none"> Explain that unsupported objects fall towards Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect
<p>GD</p>	
<ul style="list-style-type: none"> Research and explain why daylight hours are longer in the summer than winter 	
<p>Design & Technology: Construction & sheet materials</p>	<p>Art & Design: Drawing</p>
<p><i>Children design and make their own moving model using a CAM pulley system.</i></p>	<p><i>Sketches of sports people which forces could impact e.g. sky-divers, skiers, parachutists, sprinters or images of transformers</i></p>
<ul style="list-style-type: none"> Use a cam pulley system to make an up and down mechanism. Use bradawl to mark hole positions. Join materials using appropriate methods. Build frameworks using a range of materials to support mechanisms. E.g. wood, corrugated card and plastic. Use a glue gun with close supervision <i>Cut slots.</i> <i>Cut accurately and safely to a marked line.</i> <i>Join and combine materials with temporary, fixed or moving joints.</i> <i>Use a craft knife, cutting mat and safety ruler with 1:1 supervision appropriate.</i> <i>Choose an appropriate sheet material for a purpose.</i> 	<ul style="list-style-type: none"> Explore ways of adapting line and tone through sketching (mark making) from observational drawing. Select and record shape, pattern, texture, form and make annotations about colour and tone for use in sketchbooks. Use drawing to develop alternative ideas for design. Explore movement of the figure. Focus on one element when working from a group of objects. Match media to the purpose of task and the elements of art, e.g. line – felt pen, pencil; tone – charcoal, pencil. Explore how artists use line and pattern to reflect mood.
	
<p>GD</p>	<p>Use ICT to create a montage (pic collage) using photographed images to inspire personal art outcomes</p>
<ul style="list-style-type: none"> Incorporate a motor and a switch into a model. 	<p>GD</p>
<p>DT - Developing, planning and communicating ideas</p>	<ul style="list-style-type: none"> Explain how the qualities of media can reflect mood and purpose. Explore how artists use tone to depict form. Be aware of how artists have used tone, and texture to reflect mood.
<ul style="list-style-type: none"> Investigate products/images to collect ideas. Sketch and model alternative ideas. Record ideas using annotated diagrams. Make prototypes. Use found information to inform decisions. 	
<p>GD</p>	
<ul style="list-style-type: none"> Combine modelling and drawing to refine ideas. 	
<p>DT – Evaluating</p>	
<ul style="list-style-type: none"> Use design criteria to inform decisions about ways to proceed. Justify decisions about materials and methods of construction. Reflect on their work using design criteria stating how well the design fits the needs of the user. Identify what does and does not work in a product. Make suggestions as to how their design could be improved. 	
<p>GD</p>	
<p>Reflect up on the work of others, giving constructive advice.</p>	