

Plastazote Workshop Years 3, 4, 5 and 6

Curriculum Links

Please note:	Our workshops may not cover all of the links below in great depth as we are restricted by time, however you have the opportunity to cover them in the follow up activities you will be receiving from us.	
Aims and Activities taken from the workshop booklet	<p>During this workshop each pupil designs and makes a Plastazote model/mask of their own to take home. The models made are usually pre-arranged to tie into your own teaching plans.</p> <p>Plastazote is a SMART material with properties that can be significantly changed in a controlled way by external stimuli, in this case, temperature. It is safe, non-toxic polyethylene foam. It can be cut with scissors, marked with pencil or biro, joined, embossed and painted. Its real impact is when it is MOULDED into fantastic shapes through the use of heat.</p>	
	National Curriculum	Non-Statutory Opportunities
Science	<p>Working Scientifically (LKS2/UKS2):</p> <ul style="list-style-type: none"> Asking relevant questions and using different types of scientific enquiries to answer them; planning different types of scientific enquiries to answer questions Setting up simple practical enquiries, comparative and fair tests; recognising and controlling variables where necessary Make systematic and careful observations take accurate measurements using standard units; using a range of scientific equipment with increasing accuracy and precision, taking repeat readings where appropriate Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions; Recording simple findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables; recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions; reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degrees of trust in results, in oral and written forms such as displays and other presentations Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions; using test results to set up further comparative and fair tests Identifying differences, similarities or changes related to simple scientific ideas and processes 	<p>Pupils will have the opportunity to:</p> <ul style="list-style-type: none"> - investigate and explore the properties of Plastazote, a SMART material that can be significantly changed in a controlled way by temperature - Ask relevant questions about Plastazote and its uses in the real world - make systematic and careful observations about Plastazote and how it can be cut, marked, joined, embossed, painted and moulded using heat - Report your findings using scientific vocabulary linked to changes of state and properties of materials.

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	<ul style="list-style-type: none"> Using straightforward scientific evidence to answer questions or to support their findings; identifying scientific evidence that has been used to support or refute ideas or arguments <p>Properties and Changes to Materials (Y5)</p> <ul style="list-style-type: none"> compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda 	
<p>DT</p>	<p>Design</p> <ul style="list-style-type: none"> use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <p>Evaluate</p> <ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world 	<p>Become design engineers using SMART material to make a quality product!</p> <ul style="list-style-type: none"> - design and construct a product that uses moulding heat technology - use tools to cut, shape and join accurately - Apply their knowledge of materials and changes of state to a real-world project - Evaluate their ideas and Plastazote product and consider ways to improve it

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Maths	Measurement: Measurement: measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) (Y3); estimate, compare and calculate different measures (Y4); convert between different units of metric measure (centimetre and millimetre (Y5); use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places (Y6)	Opportunity to develop measuring skills
English	<ul style="list-style-type: none"> • ask relevant questions to extend their understanding and knowledge • articulate and justify answers, arguments and opinions • developing a broader, deeper and richer vocabulary 	