

Bournville Primary School Learning Progression in Design and Technology **FOOD**

K, S & U	KS1a	KS1b	KS2a	KS2b	KS2c
<p><b>1. Design</b></p>	<p><i>I think of ideas and with help, can put them into practice. I know the features of familiar products. I use pictures and words to describe what I want to do.</i></p>	<p><i>I think of ideas and plan what to do next, based on what I know about materials and components. I select the appropriate tools, techniques and materials, explaining my choices. I use models, pictures and words to describe my designs.</i></p>	<p><i>I generate ideas and recognise that my designs have to meet a range of different needs. I make realistic plans to achieve my aims. I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques. I clarify my ideas using labelled sketches and models to communicate the details of my designs.</i></p>	<p><i>I generate ideas by collecting and using information. I take the views of users' into account when designing my products. I produce step-by-step plans. I communicate alternative ideas using words, labelled sketches and models showing that I am aware of the constraints of my design.</i></p>	<p><i>I draw on and use various sources of information. I use my understanding of familiar products to help develop my own ideas. I work from my own detailed plans, modifying them where appropriate. I clarify my ideas through discussion, drawing and modelling. I communicate my ideas.</i></p>
<p><b>2. Make</b></p>	<p>I use knives safely to cut food (with help) I use a mixing bowl to prepare a mixture. I have made a food product. I know that I have to wash my hands and keep work surfaces clean when preparing food.</p>	<p>I prepare food safely and hygienically and can describe what this means. I describe the properties of the food ingredients: taste, smell, texture, and consistency. I weigh or measure my ingredients accurately. I describe my food product using its properties.</p>	<p>I select ingredients for my food product. I work in a safe and hygienic way. I measure out my ingredients by weight or quantity, using scales where appropriate. My food product is presented to impress the intended user.</p>	<p>My food product uses a selection of ingredients to meet an identified need. (e.g. lunchtime snack, healthy sandwich, low gluten). I work in a safe and hygienic way. My food is well presented and packaged using other DT skills. I persuade others to take an interest in my product by using my persuasive writing skills that describe the qualities of my product.</p>	<p>I use my science knowledge of micro-organisms to store and prepare food properly. I use my science knowledge of irreversible changes to create food products that combine to make a new material, that I can then describe using its sensory qualities.</p>
<p><b>3. Evaluate</b></p>	<p>I talk about my own and others' work. I describe how a product works</p>	<p>I recognise what I have done well in my work. I suggest things I could do in the future.</p>	<p>I identify where my evaluations have led to improvements in my products.</p>	<p>I reflect on my designs and develop them bearing in mind the way they will be used. I identify what is working well and what can be improved.</p>	<p>I reflect on my designs and develop them bearing in mind the way they will be used. I test and evaluate my products, showing that I understand the situations my products will have to work. I am aware that resources may be limited (budget, time, availability) I evaluate my products and how I used information sources to inform my design.</p>
<p><b>4. Technical Knowledge</b></p>		<p>I learn how to best store my product for long-life and hygiene.</p>	<p>I describe my food product in terms of taste, texture, flavour and relate this to the intended purpose of the food.  My product has been cooked or chilled to change the nature of the raw ingredients.</p>	<p>I understand that some foods may not be eaten raw, as it is unsafe.  I understand that cooking alters the flavour and texture of foods and use this knowledge in my designs.</p>	<p>I use proportions and ratio to produce recipes of my food product, scaling up and down for different quantities.</p>

Bournville Primary School Learning Progression in Design and Technology **TEXTILES**

K, S & U	KS1a	KS1b	KS2a	KS2b	KS2c
<p><b>1. Design</b></p>	<p><i>I think of ideas and with help, can put them into practice.</i> <i>I know the features of familiar products.</i> <i>I use pictures and words to describe what I want to do.</i></p>	<p><i>I think of ideas and plan what to do next, based on what I know about materials and components.</i> <i>I select the appropriate tools, techniques and materials, explaining my choices.</i> <i>I use models, pictures and words to describe my designs.</i></p>	<p><i>I generate ideas and recognise that my designs have to meet a range of different needs.</i> <i>I make realistic plans to achieve my aims.</i> <i>I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques.</i> <i>I clarify my ideas using labelled sketches and models to communicate the details of my designs.</i></p>	<p><i>I generate ideas by collecting and using information.</i> <i>I take the views of users' into account when designing my products.</i> <i>I produce step-by-step plans.</i> <i>I communicate alternative ideas using words, labelled sketches and models showing that I am aware of the constraints of my design.</i></p>	<p><i>I draw on and use various sources of information.</i> <i>I use my understanding of familiar products to help develop my own ideas.</i> <i>I work from my own detailed plans, modifying them where appropriate.</i> <i>I clarify my ideas through discussion, drawing and modelling.</i> <i>I communicate my ideas.</i></p>
<p><b>2. Make</b></p>	<p>I can describe textiles by the way they feel.</p> <p>I have made a product from textiles.</p> <p>I can measure, mark out and cut fabric.</p> <p>I can join fabrics using glue.</p> <p>I make sure my work is neat and tidy.</p>	<p>I use accurate measurements in cm.</p> <p>I use scissors precisely when cutting out.</p> <p>I join textiles using glue, staples, tying or a simple stitch.</p> <p>I have made a textile product that has a good finish and can do the job it was made for.</p>	<p>I select the appropriate textile(s) for my product.</p> <p>I use sharp scissors accurately to cut textiles.</p> <p>I know that the texture and other properties of materials affect my choice.</p> <p>My designs improve as I go along.</p>	<p>My textile work incorporates the views of intended users' and for the purpose.</p> <p>I use my art textiles skills such as stitching to help create a product that is sturdy and fit for purpose.</p>	<p>My products have an awareness of commercial appeal.</p> <p>I experiment with a range of materials until I find the right mix of affordability, appeal and appropriateness for the job.</p> <p>I combine art skills to add colour and texture to my work.</p> <p>I mark out using my own patterns and templates</p>
<p><b>3. Evaluate</b></p>	<p><i>I talk about my own and others' work.</i> <i>I describe how a product works</i></p>	<p><i>I recognise what I have done well in my work. I suggest things I could do in the future.</i></p>	<p><i>I identify where my evaluations have led to improvements in my products.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used.</i> <i>I identify what is working well and what can be improved.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used.</i> <i>I test and evaluate my products, showing that I understand the situations my products will have to work.</i> <i>I am aware that resources may be limited (budget, time, availability)</i> <i>I evaluate my products and how I used information sources to inform my design.</i></p>
<p><b>4. Technical Knowledge</b></p>	<p>I know how textiles can be used to make products.</p> <p>I have altered a textile to make it stronger.</p>	<p>I know that textiles have different properties: feel, insulation, texture and waterproof. I select the appropriate textile so that it does the job I want it to.</p>	<p>I combine materials to add strength or visual appeal.</p>	<p>My textile products include structural changes, such as plaiting or weaving to create new products such as rope, belts, bracelets etc.</p>	<p>I join textiles using art skills of stitching, embroidering and plaiting to make a durable and desirable product.</p>

K, S & U	KS1a	KS1b	KS2a	KS2b	KS2c
<p><b>1. Design</b></p>	<p><i>I think of ideas and with help, can put them into practice.</i>  <i>I know the features of familiar products.</i>  <i>I use pictures and words to describe what I want to do.</i></p>	<p><i>I think of ideas and plan what to do next, based on what I know about materials and components.</i>  <i>I select the appropriate tools, techniques and materials, explaining my choices.</i>  <i>I use models, pictures and words to describe my designs.</i></p>	<p><i>I generate ideas and recognise that my designs have to meet a range of different needs.</i>  <i>I make realistic plans to achieve my aims.</i>  <i>I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques.</i>  <i>I clarify my ideas using labelled sketches and models to communicate the details of my designs.</i></p>	<p><i>I generate ideas by collecting and using information.</i>  <i>I take the views of users' into account when designing my products.</i>  <i>I produce step-by-step plans.</i>  <i>I communicate alternative ideas using words, labelled sketches and models showing that I am aware of the constraints of my design.</i></p>	<p><i>I draw on and use various sources of information.</i>  <i>I use my understanding of familiar products to help develop my own ideas.</i>  <i>I work from my own detailed plans, modifying them where appropriate.</i>  <i>I clarify my ideas through discussion, drawing and modelling.</i>  <i>I communicate my ideas.</i></p>
<p><b>2. Make</b></p>	<p>I have made a product that moves using a turning mechanism (e.g. wheels, winding) or a lever or a hinge (to make a movement)</p> <p>I cut materials using scissors.</p> <p>I describe the properties of the materials I have used.</p>	<p>I have made a product that uses movement.</p> <p>The materials I use are just right for the job and this helps my product to work well.</p> <p>I have used a number of materials and joined them so they are strong.</p> <p>I use my art skills to add design or detail to my product.</p>	<p>I select the most appropriate techniques and tools to make my product.</p> <p>I come up with solutions to problems as they happen.</p> <p>I have made a product that uses both electrical and mechanical components.</p> <p>My product has a good finish so that a user will find it both useful and attractive.</p>	<p>I have chosen components that can be controlled by switches or by ICT equipment.</p> <p>My product is improved after testing.</p> <p>My product is well finished in a way that would appeal to users.</p>	<p>I use my science skills (resistance, batteries in series or parallel, variable resistance to dim lights or control speed) to alter the way my electrical products behave.</p> <p>My products are well finished using a range of art and other finishing techniques.</p> <p>I use precise electrical connections.</p>
<p><b>3. Evaluate</b></p>	<p><i>I talk about my own and others' work.</i>  <i>I describe how a product works</i></p>	<p><i>I recognise what I have done well in my work. I suggest things I could do in the future.</i></p>	<p><i>I identify where my evaluations have led to improvements in my products.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used.</i>  <i>I identify what is working well and what can be improved.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used.</i>  <i>I test and evaluate my products, showing that I understand the situations my products will have to work.</i>  <i>I am aware that resources may be limited (budget, time, availability)</i>  <i>I evaluate my products and how I used information sources to inform my design.</i></p>
<p><b>4. Technical Knowledge</b></p>	<p>I have explored how moving objects work.</p> <p>I have looked at wheels, axels, turning mechanisms, hinges and simple levers.</p>	<p>I know that my product needs to be made from materials that are suitable for the job.</p>	<p>I know the application of mechanisms to create movement.</p> <p>I combine a number of components well in my product.</p> <p>I use simple circuits to either illuminate or create motion.</p>	<p>I have explored mechanical movement using hydraulics and pneumatics.</p>	<p>I use other DT skills to create housings for my mechanical components.</p>

K, S & U	KS1a	KS1b	KS2a	KS2b	KS2c
<p><b>1. Design</b></p>	<p><i>I think of ideas and with help, can put them into practice.</i>  <i>I know the features of familiar products.</i>  <i>I use pictures and words to describe what I want to do.</i></p>	<p><i>I think of ideas and plan what to do next, based on what I know about materials and components.</i>  <i>I select the appropriate tools, techniques and materials, explaining my choices.</i>  <i>I use models, pictures and words to describe my designs.</i></p>	<p><i>I generate ideas and recognise that my designs have to meet a range of different needs.</i>  <i>I make realistic plans to achieve my aims.</i>  <i>I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques.</i>  <i>I clarify my ideas using labelled sketches and models to communicate the details of my designs.</i></p>	<p><i>I generate ideas by collecting and using information.</i>  <i>I take the views of users' into account when designing my products.</i>  <i>I produce step-by-step plans.</i>  <i>I communicate alternative ideas using words, labelled sketches and models showing that I am aware of the constraints of my design.</i></p>	<p><i>I draw on and use various sources of information.</i>  <i>I use my understanding of familiar products to help develop my own ideas.</i>  <i>I work from my own detailed plans, modifying them where appropriate.</i>  <i>I clarify my ideas through discussion, drawing and modelling.</i>  <i>I communicate my ideas.</i></p>
<p><b>2. Make</b></p>	<p>I have made a structure.</p> <p>I describe the materials I have used to make my structure.</p> <p>I measure and mark out the materials I need for my structure.</p> <p>I finish off my work so it looks neat and tidy.</p>	<p>My structures use materials that are strong.</p> <p>I measure and mark out materials with care and use safe ways of cutting it, including using a junior hacksaw.</p> <p>I use a range of joins.</p>	<p>I use scoring, and folding to shape materials accurately.</p> <p>I make cuts (scissors, snips, saw) accurately</p> <p>I make holes (punch, drill) accurately</p> <p>My methods of working are precise so that products have a high quality finish.</p>	<p>I measure using mm and then use scoring, and folding to shape materials accurately with a focus on precision.</p> <p>I make cuts (scissors, snips, saw) accurately and reject pieces that are not accurate and improve my technique.</p> <p>I make holes (punch, drill) accurately</p> <p>My methods of working are precise so that products have a high quality finish.</p>	<p>I measure and select materials with cost and workability in mind.</p> <p>I make very careful and precise measurements so that joins, holes and openings are in exactly the right place.</p> <p>I ensure that edges are finished by sometimes adding other materials. (e.g. edging strips)</p> <p>My product is well received by intended users.</p>
<p><b>3. Evaluate</b></p>	<p><i>I talk about my own and others' work.</i>  <i>I describe how a product works</i></p>	<p><i>I recognise what I have done well in my work. I suggest things I could do in the future.</i></p>	<p><i>I identify where my evaluations have led to improvements in my products.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used.</i>  <i>I identify what is working well and what can be improved.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used.</i>  <i>I test and evaluate my products, showing that I understand the situations my products will have to work.</i>  <i>I am aware that resources may be limited (budget, time, availability)</i>  <i>I evaluate my products and how I used information sources to inform my design.</i></p>
<p><b>4. Technical Knowledge</b></p>	<p>I have found out how to make materials for my structure stronger by folding, joining or rolling.</p>	<p>I know how to make structures stronger by folding joining or by shape (columns, triangles).</p>	<p>I join materials to make products using both permanent and temporary fastenings.</p>	<p>My joins are strong and stable, giving extra strength to my products.</p> <p>Some joins are flexible to allow for dismantling or folding.</p>	<p>I hide some joints for aesthetic effect.</p>

Bournville Primary School Learning Progression in Design and Technology **MOULDABLE MATERIALS**

K, S & U	KS1a	KS1b	KS2a	KS2b	KS2c
<p><b>1. Design</b></p>	<p><i>I think of ideas and with help, can put them into practice. I know the features of familiar products. I use pictures and words to describe what I want to do.</i></p>	<p><i>I think of ideas and plan what to do next, based on what I know about materials and components. I select the appropriate tools, techniques and materials, explaining my choices. I use models, pictures and words to describe my designs.</i></p>	<p><i>I generate ideas and recognise that my designs have to meet a range of different needs. I make realistic plans to achieve my aims. I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques. I clarify my ideas using labelled sketches and models to communicate the details of my designs.</i></p>	<p><i>I generate ideas by collecting and using information. I take the views of users' into account when designing my products. I produce step-by-step plans. I communicate alternative ideas using words, labelled sketches and models showing that I am aware of the constraints of my design.</i></p>	<p><i>I draw on and use various sources of information. I use my understanding of familiar products to help develop my own ideas. I work from my own detailed plans, modifying them where appropriate. I clarify my ideas through discussion, drawing and modelling. I communicate my ideas.</i></p>
<p><b>2. Make</b></p>			<p>I use the most appropriate mouldable material suitable for the purpose of my product.</p> <p>I shape my product carefully, using techniques and tools that lead to a high quality finish.</p> <p>I use my art skills to apply texture or design to my product.</p>	<p>I use suitable mouldable materials selected for the purpose of my product.</p> <p>My product is fit for purpose and I improve it in response to a user's point of view.</p> <p>I apply a high quality finish (e.g. using carving, paint, glaze, varnish or other finishes).</p> <p>I use both my hands and other tools to mould materials into very accurate shapes that will do the intended job well.</p>	<p>I select materials based on the final finished product's use.</p> <p>My products have a high degree of precision and do the intended job well (e.g. a handle on a cup is designed to be an insulator)</p> <p>My products are carefully finished to add extra appeal. This sometimes includes the addition of other materials (e.g. container for a wax candle)</p>
<p><b>3. Evaluate</b></p>	<p><i>I talk about my own and others' work. I describe how a product works</i></p>	<p><i>I recognise what I have done well in my work. I suggest things I could do in the future.</i></p>	<p><i>I identify where my evaluations have led to improvements in my products.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used. I identify what is working well and what can be improved.</i></p>	<p><i>I reflect on my designs and develop them bearing in mind the way they will be used. I test and evaluate my products, showing that I understand the situations my products will have to work. I am aware that resources may be limited (budget, time, availability) I evaluate my products and how I used information sources to inform my design.</i></p>
<p><b>4. Technical Knowledge</b></p>			<p>I describe the qualities of my material and say why it will be the most suitable choice.</p>	<p>I know that my product may need further improvement as the material changes as it dries or when it is heated (e.g. kiln or oven)</p>	