

Hoyland Common Primary School
Design and Technology Skills





Transition

Incerts assessment criteria	Skills			
	Food	Textiles	Mechanisms	Structures
A - Children can generate ideas and recognise characteristics of familiar products	I know the features of familiar products I think of ideas and with help, can put them into practice			
		I know how textiles can be used to make products	I describe the properties of the materials I have used. I have explored how moving objects work	
B - Children's plans show that, with help, they can put their ideas into practice.	I have made food product	I have made a product from textiles I make sure my work is neat and tidy	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)	I have made a structure
C - Children use pictures and words to describe what they want to do	I use pictures and words to describe what I want to do			
D - Children can explain what they are making and what tools they are using F - Children use tools and materials with help, where needed	I use knives safely to cut food (with help) I use a mixing bowl to prepare a mixture I know that I have to wash my hands and keep work surfaces clean when preparing food	I can measure, mark out and cut fabric I can join fabric using glue I can describe textiles by the way they feel I have altered a textile to make it stronger	I cut materials using scissors	I have found out how to make materials for my structure by folding, joinin or rolling I measure and mark out th materials I need for my structure I finish off my work so it looks neat and tidy
E - Children talk about their own and others' work in simple terms and describe how a product works	I can talk about my and other's work I can describe how a product works			
			I have looked at wheels, axels, turning mechanisms, hinges and simple levers.	I describe the materials I have used to make my structure



Lower KS1

<u>Incerts assessment criteria</u>	<u>Skills</u>			
	Food	Textiles	Mechanisms	Structures
A – Children generate ideas and plan what to do next, based in their experience of working with materials and components	I think of ideas and plan what to do next, based on what I know about materials and components			
	I learn how to best store my product for long-life and hygiene	I know that textiles have different properties; touch, insulation, texture and waterproof. I select the appropriate textile so that it does the job I want it to	I know that my product needs to be made from materials that are suitable for the job	I know how to make structures stronger by folding, joining or by shape (columns, triangles)
B – Children use models, pictures and words to describe their designs	I use models, pictures and words to describe my design			
C – Children select appropriate tools, techniques and materials, explaining their choices	I select the appropriate tools, techniques and materials, explaining my choice			
D – Children use tools and assemble, join and combine materials and components in a variety of ways	<p>I prepare food safely and hygienically and can describe what this means</p> <p>I describe the properties of food ingredients; taste, smell, texture and consistency</p> <p>I weigh or measure my ingredients accurately</p> <p>I describe my food product using its properties</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 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 detail to my product</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>
H – Children recognise what they have do well as their work progresses and suggest things they could do better in the future	I recognise what I have done well in my work. I suggest things I could do in the future.			



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Upper KS1

<u>Incerts assessment criteria</u>	<u>Skills</u>				
	Electrical & mechanical components	Food	Mouldable Materials	Stiff and flexible sheet materials	Textiles
A - Children generate ideas and recognise that their designs have to meet a range of differing needs	I generate ideas and recognise that my designs have to meet a range of differing needs I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques				
B – Children make realistic plans for achieving their aims	I make realistic plans to achieve my aims				
C – Children clarify ideas when asked and use words, labelled sketches and models to communicate the details of his deigns	I clarify my ideas using labelled sketches and models to communicate the details of my designs				
F – Children use tools and equipment with some accuracy to cut and shape materials and to put together components	<p>I select the most appropriate techniques and tools to make my product</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 know the application of mechanisms to create movement</p> <p>I combine a number of</p>	<p>I select ingredients for my food product</p> <p>I work in a safe and hygienic way</p> <p>I ensure out my ingredients by weight or quantity, using scales where appropriate</p> <p>My food product is presented to impress the intended user</p> <p>I describe my food product in</p>	<p>I use the most appropriate mouldable materials 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 describe the qualities of my</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 join materials to make products using both permanent and temporary fastenings</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>I combine materials to add strength or visual appeal</p>



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	<p>components well in my product</p> <p>I use simple circuits to either illuminate or create motion</p>	<p>terms of taste, flavour, texture and relate this to the intended purpose of the food</p> <p>My product has been cooked or chilled to change the nature of the raw ingredients</p>	<p>material and say how it will be the most suitable choice</p>		
<p>G – Children identify where evaluation of the design and make process and their product has led to improvements.</p>	<p>I identify where my evaluations have led to improvements in my products</p> <p>I come up with solutions to problems as they happen</p> <p>My designs improve as I go along</p>				



Lower KS2

<u>Incerts assessment criteria</u>	<u>Skills</u>				
	Electrical & mechanical components	Food	Mouldable Materials	Stiff and flexible sheet materials	Textiles
A – Children generate ideas by collecting and using information	I can generate ideas by collecting and using information				
B – Children take users’ views into account and produce step-by-step plans	I take the views of users’ into account when designing my product I produce step-by-step plans				
C – Children communicate alternative ideas using words, labelled sketches and models, showing that they are aware of constraints	I communicate alternative ideas using words, labelled sketches and models showing that I am aware of the constraints of my design				
D – Children work with a variety of materials and components with some accuracy, paying attention to quality of finish and to function.	I have explored mechanical movement using hydraulics and pneumatics	My food product uses a selection of ingredients to meet an identified need (e.g. lunchtime healthy snack healthy sandwich, low gluten) My product is well presented and packaged using other DT skills I persuade others to take an interest in my product by	I use suitable mouldable materials selected for the purpose of my product I apply a high quality finish (e.g. using carving, paint, glaze, varnish or other finishes) I know that my product may need further improvement as	I measure using mm and then scoring, and folding to shape materials accurately with a focus on precision My methods of working are precise so that products have a high quality finish My joins are strong and stable, giving extra strength to my products	I use my art textiles skills such as stitching to help create a product that is sturdy and fit for purpose My textile products include structural changes such as plaiting or weaving to create new products such as rope, belts, bracelets etc.



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		<p>using my persuasive writing skills that describe the qualities of my product</p> <p>I understand that some foods may not be eaten raw, as it is unsafe</p> <p>I understand that cooking alters the flavour and the texture of foods and use this knowledge in my designs</p>	<p>the materials changes as it dries or when it is heated (e.g. kiln or oven)</p>		
<p>F – Children select and work with a range of tools and equipment</p>	<p>I have chosen components that can be controlled by switches or by ICT equipment</p>	<p>I work in a safe and hygienic way</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 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>	



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<p>G – Children reflect on their designs as they develop, bearing in mind the way the product will be used.</p>	<p>I reflect on my designs and develop them bearing in mind the way that they will be used My product is well finished in a way that would appeal to users My product is fit for purpose and I improve it in response to a users' point of view My work incorporates the views of intended users and for the purpose</p>
<p>H – Children identify what is working well and what could be improved</p>	<p>I identify what is working well and what can be improved My product is well finished in a way that would appeal to users</p>



Upper KS2

<u>Incerts assessment criteria</u>	<u>Skills</u>				
	Electrical & mechanical components	Food	Mouldable Materials	Stiff and flexible sheet materials	Textiles
A – Children draw on and uses various sources of information	I draw on and use various sources of information				
B – Children clarify his ideas through discussion, drawing and modelling	I clarify my ideas through discussion, drawing and modelling I communicate my ideas				
C – Children use their understanding of the characteristics of familiar products when developing and communicating their own ideas	I use my understanding of familiar products to help develop my own ideas				
	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	I use my science knowledge of microorganisms to store and prepare food properly	I ensure and select materials with cost and workability in mind		
D – Children work from their own detailed plans, modifying them where appropriate	I work from my own detailed plans, modifying them where appropriate				
F – Children work with a range of tools, materials and equipment, components and processes with some precision	My products are well finished using a range of art and other finishing techniques I use precise electrical	I use my science knowledge of irreversible changes to create food products that combine to make a new material, that I	I select materials based on the final finished product's use My products have a high degree of precision and do	I make very careful and precise measurements so that it joins, holes and openings are in exactly the right place	My products have an awareness of commercial appeal I experiment with a range of materials until I find the right mix of affordability,



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	connections I use other DT skills to create housing for my mechanical components	can then describe using its sensory qualities I use proportions and ratio to produce recipes of my food product, scaling up and down for different quantities	the intended job well (e.g. a handle on a cup is designed to be an insulator) My products are carefully finished to add extra appeal. This sometimes includes the addition of other materials (e.g. container for a wax candle)	I ensure that edges are finished by sometimes adding other materials (e.g. edging strips) My product is well received by intended users I hide some joins for aesthetic effect	appeal and appropriateness for the job I combine art skills to add colour and texture to my work I mark out using my own patterns and templates I join textiles using art skills of stitching, embroidering and plaiting to make a durable and desirable product.
G – Children check their work as it develops and modify their approach in light of progress	I check my work as it develops and modify it as I need to				
H – Children test and evaluate their products, showing that they understand the situations in which their designs will have to function and are aware of resources as a constraint	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 product will have to work I am aware that resources may be limited (budget, time, availability)				
I – Children evaluate products and use of information sources	I evaluate my products and how I used information sources to inform my design				