



Progression in Design and Technology (DT) Skills

Design	Teddy	Panda	Koala
<p>EYFS - Expressive arts and design Exploring and using media and materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Being imaginative: children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.</p>	<ul style="list-style-type: none"> • work confidently within a range of contexts, such as imaginary, story based, home, school, gardens, playgrounds, local community, industry and the wider environment • state what products they are making • say whether their products are for themselves or other users • describe what their products are for • say how their products will work • say how they will make their products suitable for their intended users • use simple design criteria 	<ul style="list-style-type: none"> • work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work • gather information about needs and wants of particular individuals and groups • develop their own design criteria and use these to inform their ideas 	<ul style="list-style-type: none"> • work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment • describe the purpose of their products • indicate the design features of their products that will appeal to intended users • explain how particular parts of their products work • carry out research, using surveys, interviews, questionnaires and web-based resources • identify the needs, wants, preferences and values of particular

<p>KS1</p> <ul style="list-style-type: none"> design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	<p>to help develop their ideas Designing - Generating, developing, modelling and communicating ideas</p> <ul style="list-style-type: none"> generate ideas by drawing on their own experiences use knowledge of existing products to help come up with ideas develop and communicate ideas by talking and drawing model ideas by exploring materials, components and construction kits and by making templates and mockups use ICT, where appropriate, to develop and communicate their ideas 	<p>Designing - Generating, developing, modelling and communicating ideas</p> <ul style="list-style-type: none"> share and clarify ideas through discussion model their ideas using prototypes and pattern pieces use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas use computer-aided design to develop and communicate their ideas generate realistic ideas, focusing on the needs of the user make design decisions that take account of the availability of resources 	<p>individuals and groups</p> <ul style="list-style-type: none"> develop a simple design specification to guide their thinking Designing - Generating, developing, modelling and communicating ideas share and clarify ideas through discussion model their ideas using prototypes and pattern pieces use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas use computer-aided design to develop and communicate their ideas generate realistic ideas, focusing on the needs of the user make design decisions that take account of the availability of resources
<p>KS2</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 			

Make	Teddy	Panda	Koala
<p>EYFS - Expressive arts and design Exploring and using media and materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Being imaginative: children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.</p> <p>KS1</p> <ul style="list-style-type: none"> select from and use a range of tools and equipment to perform practical tasks [for example, cutting, 	<ul style="list-style-type: none"> plan by suggesting what to do next select from a range of tools and equipment, explaining their choices select from a range of materials and components according to their characteristics follow procedures for safety and hygiene use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components measure, mark out, cut and shape materials and components assemble, join and combine materials and components use finishing techniques, including those from art and design 	<ul style="list-style-type: none"> select tools and equipment suitable for the task explain their choice of tools and equipment in relation to the skills and techniques they will be using select materials and components suitable for the task explain their choice of materials and components according to functional properties and aesthetic qualities order the main stages of making follow procedures for safety and hygiene use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components 	<ul style="list-style-type: none"> select tools and equipment suitable for the task explain their choice of tools and equipment in relation to the skills and techniques they will be using select materials and components suitable for the task explain their choice of materials and components according to functional properties and aesthetic qualities produce appropriate lists of tools, equipment and materials that they need formulate step-by-step plans as a guide to making follow procedures for safety and hygiene use a wider range of materials and components than KS1, including construction

<p>shaping, joining and finishing]</p> <ul style="list-style-type: none"> select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics <p>KS2</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 		<ul style="list-style-type: none"> measure, mark out, cut and shape materials and components with some accuracy assemble, join and combine materials and components with some accuracy apply a range of finishing techniques, including those from art and design, with some accuracy 	<p>materials and kits, textiles, food ingredients, mechanical components and electrical components</p> <ul style="list-style-type: none"> accurately measure, mark out, cut and shape materials and components accurately assemble, join and combine materials and components accurately apply a range of finishing techniques, including those from art and design use techniques that involve a number of steps demonstrate resourcefulness when tackling practical problems
<p>Evaluate</p>	<p>Teddy</p>	<p>Panda</p>	<p>Koala</p>
<p>EYFS - Expressive arts and design Exploring and using media and</p>	<ul style="list-style-type: none"> talk about their design ideas and what they are 	<p>Evaluating – Own ideas and products</p>	<p>Evaluating – Own ideas and products</p>

<p>materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Being imaginative: children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.</p> <p>KS1</p> <ul style="list-style-type: none"> • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria <p>KS2</p> <p>investigate and analyse a range of existing products</p> <ul style="list-style-type: none"> • evaluate their ideas and 	<p>making</p> <ul style="list-style-type: none"> • make simple judgements about their products and ideas against design criteria • suggest how their products could be improved • explore what products are and who or what they are for. • explore how products work and how or where they might be used. • explore what materials products are made from <ul style="list-style-type: none"> • explore what they like and dislike about products 	<ul style="list-style-type: none"> • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work • refer to their design criteria as they design and make • use their design criteria to evaluate their completed products <p>Pupils will be taught to investigate and analyse:</p> <ul style="list-style-type: none"> • how well products have been designed and made • why materials have been chosen • what methods of construction have been used • developed ground-breaking products • how well products work to achieve their purposes • how well products meet user needs and wants • who designed and made 	<ul style="list-style-type: none"> • identify the strengths and areas for development in their ideas and products • consider the views of others, including intended users, to improve their work • critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make • evaluate their ideas and products against their original design specification <p>Pupils will be taught to investigate and analyse:</p> <ul style="list-style-type: none"> • how well products have been designed and made • why materials have been chosen • what methods of construction have been used • how well products work to achieve their purposes • how well products meet user needs and wants
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<p>products against their own design criteria and consider the views of others to improve their work</p> <ul style="list-style-type: none"> • understand how key events and individuals in design and technology have helped shape the world 		<p>the products</p> <ul style="list-style-type: none"> • where and when products were designed and made • whether products can be recycled or reused <p>Evaluating – Key events and individuals</p> <ul style="list-style-type: none"> • about inventors, designers, engineers, chefs and manufacturers who have developed ground breaking products 	<ul style="list-style-type: none"> • how much products cost to make • how innovative products are • how sustainable the materials in products are • what impact products have beyond their intended purpose <p>Evaluating – Key events and individuals about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products</p>
<p>Technical Knowledge</p>	<p>Teddy</p>	<p>Panda</p>	<p>Koala</p>
<p>EYFS - Expressive arts and design Exploring and using media and materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour,</p>	<ul style="list-style-type: none"> • about the simple working characteristics of materials and components • about the movement of simple mechanisms such as levers, sliders, wheels and axles • how freestanding structures can be made 	<ul style="list-style-type: none"> • how to use learning from science and maths to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful 	<ul style="list-style-type: none"> • how to use learning from science and maths to help design and make products that work • that materials have both functional properties and aesthetic qualities • that materials can be combined and mixed to create more useful

<p>design, texture, form and function. Being imaginative: children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.</p> <p>KS1</p> <ul style="list-style-type: none"> • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. <p>KS2</p> <ul style="list-style-type: none"> • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for 	<p>stronger, stiffer and more stable</p> <ul style="list-style-type: none"> • that a 3-D textiles product can be assembled from two identical fabric shape • that food ingredients should be combined according to their sensory characteristics • the correct technical vocabulary for the projects they are undertaking 	<p>characteristics</p> <ul style="list-style-type: none"> • that mechanical and electrical systems have an input, process and output • use the correct technical vocabulary for the projects they are undertaking • how mechanical systems such as levers and linkages or pneumatic systems create movement • how simple electrical circuits and components can be used to create functional products • how to program a computer to control their products • how to make strong, stiff shell structures • that a single fabric shape can be used to make a 3D textiles product • that food ingredients can be fresh, pre-cooked and processed 	<p>characteristics</p> <ul style="list-style-type: none"> • that mechanical and electrical systems have an input, process and output • the correct technical vocabulary for the projects they are undertaking • how mechanical systems such as cams or pulleys or gears create movement • how more complex electrical circuits and components can be used to create functional products • how to program a computer to monitor changes in the environment and control their products • how to reinforce and strengthen a 3D framework • that a 3D textiles product can be made from a combination of fabric shapes • that a recipe can be adapted by adding or substituting one or more
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<p>example, gears, pulleys, cams, levers and linkages]</p> <ul style="list-style-type: none"> • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products. 			<p>ingredients</p>
<p>Cooking and Nutrition</p>	<p>Teddy</p>	<p>Panda</p>	<p>Koala</p>
<p>EYFS - Expressive arts and design Exploring and using media and materials: children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Being imaginative: children use what they have learnt about media and materials</p>	<p>Where food comes from</p> <ul style="list-style-type: none"> • that all food comes from plants or animals • that food has to be farmed, grown elsewhere (e.g. home) or caught <p>Cooking and nutrition – Food preparation, cooking and nutrition</p> <ul style="list-style-type: none"> • how to name and sort foods into the five groups 	<p>Where food comes from</p> <ul style="list-style-type: none"> • that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world <p>Cooking and nutrition – Food preparation, cooking and nutrition</p>	<p>Where food comes from</p> <ul style="list-style-type: none"> • that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world • that seasons may affect the food available • how food is processed into ingredients that can

<p>in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories.</p> <p>KS1</p> <ul style="list-style-type: none"> • use the basic principles of a healthy and varied diet to prepare dishes • understand where food comes from. <p>KS2</p> <ul style="list-style-type: none"> • understand and apply the principles of a healthy and varied diet • prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	<p>in The Eatwell Plate</p> <ul style="list-style-type: none"> • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating 	<ul style="list-style-type: none"> • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • that a healthy diet is made up from a variety and balance of different food and drink, as depicted in The Eatwell Plate • that to be active and healthy, food and drink are needed to provide energy for the body 	<p>be eaten or used in cooking</p> <ul style="list-style-type: none"> • Cooking and nutrition – Food preparation, cooking and nutrition • how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source • how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • that recipes can be adapted to change the appearance, taste, texture and aroma • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health
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