



Design and Technology Overview







The intent of the design and technology curriculum is to ensure that children are able to access a broad and balanced curriculum with a range of skills from nursery to year 6, beginning in EYFS focusing on construction, building structures and exploring tools, and progressing to electronic systems in year 6. Throughout the school years, children have the opportunity to learn 6 main aspects of DT: food, structures, mechanisms, textiles, mechanical systems and electrical systems. Certain aspects of DT are repeated throughout the school years, where the textiles in year 2 focuses on simple templates and joining techniques, year 6 textiles use computer aided design. This ensures significant progression in skills and techniques which is evident through pupil voice and their work.

To ensure children are retaining information from year to year, every time an aspect of D&T is taught, teachers assess prior learning through discussion with the pupils and base the rest of their teaching around this. Design and Technology at Colindale Primary allows children to learn about and be inspired by engineers, designers, chefs and architects and apply their knowledge and skills to creating large school projects. Ensuring close network links with local schools, enables our children to have the opportunity to create large scale projects. Colindale prides itself in enabling children to think outside the box and focus on how to make Colindale an eco-friendly community.

After completing their projects, the assessment process in Design and Technology takes into consideration the overall potential of the project. We assess the project in accordance with it meeting 6 essential criteria: User friendly, Purpose, Innovation, Authenticity, Functionality and Design Decisions. At Colindale, Design and Technology is given a real context and purpose.

[The Unicef articles: 13,14,24,27](#)

[British values:](#) Individual Liberty, Mutual respect, Tolerance of different faiths and belief

	Autumn	Spring	Summer
Nursery	<p>Materials</p> <p><u>Key Learning:</u></p> <p>Using various construction materials.</p> 	<p>Construction</p> <p><u>Key Learning:</u></p> <p>Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.</p> 	<p>Structure and joins</p> <p><u>Key Learning</u></p> <p>Join construction pieces together to build and balance.</p> 
Reception	<p>Construction</p> <p><u>Key learning:</u></p> <p>Construct with a purpose in mind, using a variety of resources.</p> 	<p>Using a range of tools</p> <p><u>Key Learning:</u></p> <p>Select tools and techniques needed to shape, assemble and join materials they are using.</p> <p>Realises tools can be used for a purpose</p> 	<p>Exploration</p> <p><u>Key Learning:</u></p> <p>Explore woodwork tools and techniques.</p> <p>Select appropriate resources for model making and constructions and adapt work where necessary.</p> 

Year 1

Marvellous me & Traditional Tales

Food: Preparing fruit and vegetables

Key Learning:

Designing

- Design appealing products for a particular user based on simple design criteria.
- Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.
- Communicate these ideas through talk and drawings.

Making

- Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely.
- Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product.

Evaluating

- Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences.
- Evaluate ideas and finished products against design criteria, including intended user and purpose.

Research: Jamie Oliver

Task: fruit/vegetable salad for parents

Transport & Animals

Structures: Free standing structures

Key Learning:

Designing

- Generate ideas based on simple design criteria and their own experiences, explaining what they could make.
- Develop, model and communicate their ideas through talking, mock-ups and drawings.

Making

- Plan by suggesting what to do next.
- Select and use tools, skills and techniques suitable for the task, explaining their choices.
- Select new and reclaimed materials and construction kits to build their structures.
- Use simple finishing techniques suitable for the structure they are creating.

Evaluating

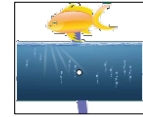
- Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.
- Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.

Task Example: Enclosures for farm or zoo animals

Under the sea and Heroes/Heroines

Mechanisms: Sliders and Levers

Key Learning:



Designing

- Generate ideas based on simple design criteria and their own experiences, explaining what they could make.
- Develop, model and communicate their ideas through drawings and mock-ups with card and paper.

Making

- Plan by suggesting what to do next.
- Select and use tools suitable for the task, explaining their choices, to cut, shape and join paper and card.
- Use simple finishing techniques suitable for the product they are creating.

Evaluating

- Explore a range of existing books and everyday products that use simple sliders and levers.
- Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.

Task Examples: Super Heroes slider pictures

Year 2	London	Tales from around the world	Natural World and Seaside
	<p>Mechanisms: <i>Wheels and axles</i></p> <p><u>Key Learning:</u></p> <p>Designing</p> <ul style="list-style-type: none"> • Generate initial ideas and simple design criteria through talking and using own experiences. • Develop and communicate ideas through drawings and mock-ups. <p>Making</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. • Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore and evaluate a range of products with wheels and axles. • Evaluate their ideas throughout and their products against original criteria. <p>Task Examples: <i>push/pull toys e.g. emergency service vehicles</i></p>	<p>Textiles: <i>Templates and joining techniques</i></p> <p><u>Key Learning:</u></p> <p>Designing</p> <ul style="list-style-type: none"> • Design a functional and appealing product for a chosen user and purpose based on simple design criteria. • Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology. <p>Making</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing. • Select from and use textiles according to their characteristics. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore and evaluate a range of existing textile products relevant to the project being undertaken. • Evaluate their ideas throughout and their final products against original design criteria. <p>Task Examples: <i>glove and finger puppets</i></p>	<p>Structures: <i>Free standing structures</i></p> <p><u>Key Learning:</u></p> <p>Designing</p> <ul style="list-style-type: none"> • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Develop, model and communicate their ideas through talking, mock-ups and drawings. <p>Making</p> <ul style="list-style-type: none"> • Plan by suggesting what to do next. • Select and use tools, skills and techniques suitable for the task, explaining their choices. • Select new and reclaimed materials and construction kits to build their structures. • Use simple finishing techniques suitable for the structure they are creating. <p>Evaluating</p> <ul style="list-style-type: none"> • Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. • Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. <p>Task: <i>bridge for food to be delivered (based on Lighthouse Keeper's</i></p>

Stone Age/Bronze Age/Iron Age

Mechanical Systems: Levers and Linkages

Key Learning:

Designing

- Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user.
- Use annotated sketches and prototypes to develop, model and communicate ideas.

Making

- Order the main stages of making.
- Select from and use appropriate tools with some accuracy to cut, shape and join paper and card.
- Select from and use finishing techniques suitable for the product they are creating.

Evaluating

- Investigate and analyse books and, where available, other products with lever and linkage mechanisms.
- Evaluate their own products and ideas against criteria and user needs, as they design and make.

Task: Iron Man models



Around the world

Food: Healthy and varied diet

Key Learning:

Designing

- Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose.
- Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.

Making

- Plan the main stages of a recipe, listing ingredients, utensils and equipment.
- Select and use appropriate utensils and equipment to prepare and combine ingredients.
- Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.

Evaluating

- Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs.
- Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.

Research: Joel Robuchon

Task: prepare paella for themselves

The Ancient Egyptians

Structures: Shell structures using computer-aided design (CAD)

Key Learning:

Designing

- Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and the functional and aesthetic purposes of the product.
- Develop ideas through the analysis of existing shell structures and use computer-aided design to model and communicate ideas.

Making

- Plan the order of the main stages of making.
- Select and use appropriate tools and software to measure, mark out, cut, score, shape and assemble with some accuracy.
- Explain their choice of materials according to functional properties and aesthetic qualities.
- Use computer-generated finishing techniques suitable for the product they are creating.

Evaluating

- Investigate and evaluate a range of shell structures including the materials, components and techniques that have been used.
- Test and evaluate their own products against design criteria and the intended user and purpose

Task Examples: gift boxes, desk tidy, lunchboxes
packaging cool boxes, party boxes, mystery boxes, toy car body shell, moneyboxes

Lights, camera action

Electrical Systems: Simple circuits and switches

Key Learning:

Designing

- Gather information about needs and wants, and develop design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups.
- Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams.

Making

- Order the main stages of making.
- Select from and use tools and equipment to cut, shape, join and finish with some accuracy.
- Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities.

Evaluating

- Investigate and analyse a range of existing battery-powered products.
- Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.

Task Examples: siren for a toy vehicle, reading light, noise-making toy, nightlight illuminated sign, table lamp, lighting for display, hands-free, head lamp, buzzer for school office

Raiders/Vikings/Saxons

Textiles: 2D shapes to 3D products

Key Learning:

Designing

- Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s.
- Produce annotated sketches, prototypes, final product sketches and pattern pieces.

Making

- Plan the main stages of making.
- Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing.
- Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern.

Evaluating

- Investigate a range of 3-D textile products relevant to the project.
- Test their product against the original design criteria and with the intended user.
- Take into account others' views.
- Understand how a key event/individual has influenced the.

Task Examples: purse/wallet, soft toy/mascot, apron, fashion accessory, beach bag, shoe bag, pencil case, story sack

Food Glorious food

Food: Healthy and varied diet

Key Learning:

Designing

- Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose.
- Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.

Making

- Plan the main stages of a recipe, listing ingredients, utensils and equipment.
- Select and use appropriate utensils and equipment to prepare and combine ingredients.
- Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.

Evaluating

- Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs.
- Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.

Research: History behind Warburton

Task: Bread Making

Travel through Space and Time

Mechanical systems: Cams

Key Learning:

Designing

- Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.
- Develop a simple design specification to guide their thinking.
- Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views.

Making

- Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team.
- Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost.

Evaluating

- Compare the final product to the original design specification.
- Test products with the intended user, where safe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
- Consider the views of others to improve their work.
- Investigate famous manufacturing and engineering companies relevant to the project.

Task Examples: : projects incorporating cam-driven components

Islamic Civilization

Food: Celebrating culture and seasonality

Key Learning:

Designing

- Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose.
- Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas.

Making

- Plan the main stages of a recipe, listing ingredients, utensils and equipment.
- Select and use appropriate utensils and equipment to prepare and combine ingredients.
- Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.

Evaluating

- Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs.
- Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.

Research: Saliha Mahmood Ahmed

Task: prepare food celebrating cultural diversity.

Ancient Greeks

Textiles: Combing different fabric shapes

Key Learning:

Designing

- Generate innovative ideas by carrying out research including surveys, interviews and questionnaires.
- Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer aided design.
- Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.

Making

- Produce detailed lists of equipment and fabrics relevant to their tasks.
- Formulate step-by-step plans and, if appropriate, allocate tasks within a team.
- Select from and use a range of tools and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost.

Evaluating

- Investigate and analyse textile products linked to their final product.
- Compare the final product to the original design specification.
- Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.
- Consider the views of others to improve their work.

Task Examples: tablet case mobile phone carrier shopping bag insulating bag hat/cap garden tool belt slippers sandals fabric advent calendar

<p style="text-align: center; font-weight: bold;">Year 6</p>	<p style="text-align: center; font-weight: bold;">Britain's Journey</p> <p>Electrical Systems: Monitoring and control</p> <p><u>Key Learning:</u></p> <p>Designing</p> <ul style="list-style-type: none"> • Develop a design specification for a functional product that responds automatically to changes in the environment. • Generate, develop and communicate ideas through discussion, annotated sketches and pictorial representations of electrical circuits or circuit diagrams. <p>Making</p> <ul style="list-style-type: none"> • Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. • Create and modify a computer control program to enable their electrical product to respond to changes in the environment. <p>Evaluating</p> <ul style="list-style-type: none"> • Continually evaluate and modify the working features of the product to match the initial design specification. • Test the system to demonstrate its effectiveness for the intended user and purpose. <p>Task: Make a torch as a warning during the air raids *using crumble boards https://redfernelectronics.co.uk/crumble/</p>		<p style="text-align: center; font-weight: bold;">Journey of life</p> <p>Textiles: Using computer-aided design (CAD) in textiles</p> <p><u>Key Learning:</u></p> <p>.Designing</p> <ul style="list-style-type: none"> • Generate innovative ideas through research including surveys, interviews and questionnaires. • Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes including using computer-aided design. • Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. <p>Making</p> <ul style="list-style-type: none"> • Produce detailed lists of equipment and fabrics relevant to their tasks. • Formulate step-by-step plans and, if appropriate, allocate tasks within a team. • Select from and use a range of tools and equipment, including CAD, to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. <p>Evaluating</p> <ul style="list-style-type: none"> • Investigate and analyse textile products linked to their final product. • Compare the final product to the original design specification. • Test products with intended user, where safe and practical, and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. • Consider the views of others to improve their work. <p>Task: tablet case, mobile phone carrier, shopping bag, insulating bag, garden tool belt</p>

Guidance in Design and Technology EYFS

<p>Developing, planning and communicating ideas</p>	<ul style="list-style-type: none"> • Explain what they are making and which materials they are using. • Select materials from a limited range that will meet a simple design criteria e.g. shiny. • Select and name the tools needed to work the materials e.g. scissors for paper. • Explore ideas by rearranging materials. • Describe simple models or drawings of ideas and intentions. • Discuss their work as it progresses
<p>Working with tools, equipment, materials and components to make quality products</p>	<ul style="list-style-type: none"> • Begin to create their design using basic techniques. • Start to build structures, joining components together. • Look at simple hinges, wheels and axles. • Use technical vocabulary when appropriate. • Begin to use scissors to cut straight and curved edges and hole punches to punch holes. • Explore using/ holding basic tools such as a saw or hammer. • Use adhesives to join material.
<p>Evaluating processes and products</p>	<ul style="list-style-type: none"> • Say what they like and do not like about items they have made and attempt to say why. • Begin to talk about their designs as they develop and identify good and bad points. • Start to talk about changes made during the making process. • Discuss how closely their finished products meet their design criteria.
<p>Food and Nutrition</p>	<ul style="list-style-type: none"> • Begin to develop a food vocabulary using taste, smell, texture and feel. • Explore familiar food products e.g. fruit and vegetables. • Stir, spread, knead and shape a range of food and ingredients. • Begin to work safely and hygienically. • Start to think about the need for a variety of foods in a diet. • Measure and weigh food items, non-statutory measures e.g. spoons, cups

Guidance in Design and Technology Year 1

Prior learning and Key learning of technical knowledge and understanding will be assessed at the beginning and end of every project: please see the 'projects on a page' planning sheets

Background Research- L1 (Exploring context and existing products)	<ul style="list-style-type: none">• Understand what a product is and who it is for• Understand how a product works and how it is used• Identify where you might find this product
Design Criteria - L2 (Understanding their intended users and their own product)	<ul style="list-style-type: none">• Explain what product they will be designing and making• Explain who their product will be used by• Describe what their product will be used for
Planning - L3 Communicating ideas and creating prototypes for product	<ul style="list-style-type: none">• Discuss what their steps for making could be• Represent ideas through talking and drawing
Making - L4-5 (Selecting the tools and applying the practical skills and techniques)	<p>Across KS1: Use materials - construction materials and kits, textiles, food and mechanical components</p> <ul style="list-style-type: none">• Choose suitable tools for making• Follow safety and food hygiene procedures• Measure, mark, cut and shape materials and components• Join, assemble and combine materials and components
Evaluation -L6 (Referring to planning and initial ideas in evaluating their product)	<ul style="list-style-type: none">• Talk about their design ideas and what they have made• Make simple judgements of how the product met their design ideas• Suggest how their products can be improved

Guidance in Design and Technology Year 2

Prior learning and Key learning of technical knowledge and understanding will be assessed at the beginning and end of every project: please see the 'projects on a page' planning sheets

<p>Background Research- L1 (Exploring context and existing products)</p>	<ul style="list-style-type: none"> • Understand what a product is and who it is for • Understand how a product works and how it is used • Identify where you might find this product • Identify the materials used to make the product • Express an opinion about the product
<p>Design Criteria - L2 (Understanding their intended users and their own product)</p>	<ul style="list-style-type: none"> • Use own experiences and existing products to develop ideas • Explain what product they will be designing and making • Explain who their product will be used by • Describe what their product will be used for and how it will work • Explain why their product is suitable for the intended user
<p>Planning - L3 Communicating ideas and creating prototypes for product</p>	<ul style="list-style-type: none"> • Discuss what their steps for making could be • Represent ideas through talking, drawing and computing - (where appropriate) • Choose materials to use based on suitability of their properties • Create templates/pattern pieces and explore materials whilst developing ideas
<p>Making - L4-5 (Selecting the tools and applying the practical skills and techniques)</p>	<p>Across KS1: Use materials - construction materials and kits, textiles, food and mechanical components</p> <ul style="list-style-type: none"> • Choose suitable tools for making whilst explaining why they should be used • Follow safety and food hygiene procedures • Measure, mark, cut and shape materials and components • Join, assemble and combine materials and components • Use finishing techniques, including skills learnt in Art
<p>Evaluation -L6 (Referring to planning and initial ideas in evaluating their product)</p>	<ul style="list-style-type: none"> • Talk about their design ideas and what they have made • Make simple judgements of how the product met their design ideas • Suggest how their product could be improved

Guidance in Design and Technology Year 3

Prior learning and Key learning of technical knowledge and understanding will be assessed at the beginning and end of every project: please see the 'projects on a page' planning sheets

<p>Background Research- L1 (Exploring context and existing products)</p>	<ul style="list-style-type: none"> • Identify who made the product, when it was made and what its purpose is • Identify what the product has been made from • Evaluate the product on design and use <p>Brain Builders:</p> <ul style="list-style-type: none"> • Research facts about famous inventors/ chefs /designers etc... linked to product
<p>Design Criteria - L2 (Understanding their intended users and their own product)</p>	<p>Brain Builders:</p> <ul style="list-style-type: none"> • Understand and gather information about what a particular group or people want from a product • Describe the purpose of their product and how it will work • Identify design features that will appeal to intended users • Explain how parts of their product works • Generate realistic ideas that meet needs of user
<p>Planning - L3 Communicating ideas and creating prototypes for product</p>	<ul style="list-style-type: none"> • Share and discuss ideas with others • Order the main stages of making • Choose materials to use based on suitability of their properties • Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) • Create pattern pieces and prototypes
<p>Making - L4-5 (Selecting the tools and applying the practical skills and techniques)</p>	<p>Across KS2: Use materials - construction materials and kits, textiles, food, mechanical and electrical components</p> <ul style="list-style-type: none"> • Choose suitable tools for making whilst explaining why they should be used • Use design criteria whilst making • Follow safety and food hygiene procedures • Measure, mark, cut and shape materials and components with some accuracy • Join, assemble and combine materials and components with some accuracy • Use finishing techniques, including skills learnt in Art with some with some accuracy
<p>Evaluation -L6 (Referring to planning and initial ideas in evaluating their product)</p>	<ul style="list-style-type: none"> • Use design criteria to evaluate product - identifying both strength and areas for development • Consider the views of others, including intended user, whilst evaluating product

Guidance in Design and Technology Year 4

Prior learning and Key learning of technical knowledge and understanding will be assessed at the beginning and end of every project: please see the 'projects on a page' planning sheets

Background Research- L1 (Exploring context and existing products)	<ul style="list-style-type: none"> • Identify who made the product, when it was made and what its purpose is • Identify what the product has been made from • Evaluate the product on design and use <p>Brain Builders:</p> <ul style="list-style-type: none"> • Research facts about famous inventors/ chefs /designers etc... linked to product
Design Criteria - L2 (Understanding their intended users and their own product)	<p>Brain Builders:</p> <ul style="list-style-type: none"> • Understand and gather information about what a particular group or people want from a product • Describe the purpose of their product • Identify design features that will appeal to intended users • Explain how parts of their product works • Develop their own design criteria and use for planning ideas • Generate realistic ideas that meet needs of user and take into account availability of resources
Planning - L3 Communicating ideas and creating prototypes for product	<ul style="list-style-type: none"> • Share and discuss ideas with others • Order the main stages of making • Choose materials to use based on suitability of their properties • Represent ideas in diagrams, annotated sketches and computer based programmes (where possible) • Create pattern pieces and prototypes
Making - L4-5 (Selecting the tools and applying the practical skills and techniques)	<p>Across KS2: Use materials - construction materials and kits, textiles, food, mechanical and electrical components</p> <ul style="list-style-type: none"> • Choose suitable tools for making whilst explaining why they should be used • Use design criteria whilst making • Follow safety and food hygiene procedures • Measure, mark, cut and shape materials and components with some accuracy • Join, assemble and combine materials and components with some accuracy • Use finishing techniques, including skills learnt in Art with some with some accuracy
Evaluation -L6 (Referring to planning and initial ideas in evaluating their product)	<ul style="list-style-type: none"> • Use design criteria to evaluate product - identifying both strengths and areas for development • Consider the views of others, including intended user, whilst evaluating product

Guidance in Design and Technology Year 5

Prior learning and Key learning of technical knowledge and understanding will be assessed at the beginning and end of every project: please see the 'projects on a page' planning sheets

<p>Background Research- L1 (Exploring context and existing products)</p>	<ul style="list-style-type: none"> • Identify who made the product, when it was made and what its purpose is • Identify what the product has been made from and how environmentally friendly the materials are • Evaluate the product on design, appearance and use • Identify the cost to make the product <p>Brain Builders:</p> <ul style="list-style-type: none"> • Research facts about famous inventors/ chefs /designers etc... linked to product
<p>Design Criteria - L2 (Understanding their intended users and their own product)</p>	<p>Brain Builders:</p> <ul style="list-style-type: none"> • Understand and gather information about what a particular group or people want from a product, using questionnaires, surveys etc... • Describe the purpose of their product • Identify design features that will appeal to intended users • Explain how parts of their product will work • Develop their own design criteria and use for planning ideas • Generate innovative ideas that meet needs of user and take into account availability of resources
<p>Planning - L3 Communicating ideas and creating prototypes for product</p>	<ul style="list-style-type: none"> • Share and discuss idea with others • Record a step by step plan for making • Produce lists for the tools, equipment and materials they will be using • Choose materials to use based on suitability of their properties and aesthetic qualities • Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) • Create pattern pieces and prototypes
<p>Making - L4-5 (Selecting the tools and applying the practical skills and techniques)</p>	<p>Across KS2: Use materials - construction materials and kits, textiles, food, mechanical and electrical components</p> <ul style="list-style-type: none"> • Choose suitable tools for making whilst explaining why they should be used • Use design criteria whilst making • Follow safety and food hygiene procedures • Measure, mark, cut and shape materials and components accurately • Join, assemble and combine materials and components accurately • Demonstrate problem solving skills when encountering a mistake or practical problem • Use finishing techniques, including skills learnt in Art accurately
<p>Evaluation -L6 (Referring to planning and initial ideas in evaluating their product)</p>	<ul style="list-style-type: none"> • Use design criteria to evaluate product - identifying both strengths and areas for development • Consider the views of others, including intended user, whilst evaluating product

Guidance in Design and Technology Year 6

Prior learning and Key learning of technical knowledge and understanding will be assessed at the beginning and end of every project: please see the 'projects on a page' planning sheets

<p>Background Research- L1 (Exploring context and existing products)</p>	<ul style="list-style-type: none"> • Identify who made the product, when it was made and what its purpose is • Identify what the product has been made from and how environmentally friendly the materials are • Evaluate the product on design, appearance and use • Identify the cost to make the product and whether it has any other purposes e.g. Leading innovation of the time, trend setting <p>Brain Builders:</p> <ul style="list-style-type: none"> • Research facts about famous inventors/ chefs / designers etc. linked to product
<p>Design Criteria - L2 (Understanding their intended users and their own product)</p>	<p>Brain Builders:</p> <ul style="list-style-type: none"> • Understand and gather information about what a particular group or people want from a product, using questionnaires, surveys etc. • Describe the purpose of their product • Identify design features that will appeal to intended users • Explain how parts of their product will work • Create a design description for their product • Highlight the impact of time, resources and cost within their design ideas • Generate innovative ideas that meet needs of user
<p>Planning - L3 Communicating ideas and creating prototypes for product</p>	<ul style="list-style-type: none"> • Share and discuss idea with others • Record a step by step plan for making • Produce lists for the tools, equipment and materials they will be using • Choose materials to use based on suitability of their properties and aesthetic qualities • Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate) • Create pattern pieces and prototypes
<p>Making - L4-5 (Selecting the tools and applying the practical skills and techniques)</p>	<p>Across KS2: Use materials - construction materials and kits, textiles, food, mechanical and electrical components</p> <ul style="list-style-type: none"> • Choose suitable tools for making whilst explaining why they should be used • Use design criteria whilst making • Follow safety and food hygiene procedures • Measure, mark, cut and shape materials and components accurately • Join, assemble and combine materials and components accurately • Demonstrate problem solving skills when encountering a mistake or practical problem • Use finishing techniques that involve a number of steps, including skills learnt in Art accurately
<p>Evaluation -L6 (Referring to planning and initial ideas in evaluating their product)</p>	<ul style="list-style-type: none"> • Use design criteria to evaluate product - looking at quality of end product and design and whether it is fit for its intended purpose • Consider the views of others, including intended user, whilst evaluating product

	Across KS1	Lower KS2	Upper KS2
<p>Teaching cooking and nutrition</p> <p>(Understanding food and food preparation)</p>	<ul style="list-style-type: none"> • Understand that food comes from plants or animals • Understand that food has to be farmed, caught, or grown 	<ul style="list-style-type: none"> • Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe • Understand that recipe can be changed by adding or taking away ingredients • Understand that the seasons can affect food produce 	<ul style="list-style-type: none"> • Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe • Understand that the seasons can affect food produce • Understand that sometimes raw ingredients need to be processed before they can be used in cooking (eg. De-feathering a chicken) • Understand that recipes can be adapted to change the appearance, taste and aroma of a dish
<p>Teaching cooking and nutrition</p> <p>(Food preparation, cooking and nutrition)</p>	<ul style="list-style-type: none"> • Sort foods into the 5 groups using The Eat-well Plate • Identify that people should eat at least 5 portions of fruit and vegetables a day • Prepare simple dishes hygienically and safely without a heat source • Use cooking techniques such as: cutting, peeling and grating 	<ul style="list-style-type: none"> • Sort foods into the 5 groups using 'The Eatwell Plate' and identify that this makes up a healthy diet • Identify that food and drink are needed to provide energy for a healthy and active lifestyle • Identify that people should eat at least 5 portions of fruit and vegetables a day • Prepare simple dishes hygienically and safely, where needed with a heat source • Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking 	<ul style="list-style-type: none"> • Sort foods into the 5 groups using 'The Eatwell Plate' and identify that this makes up a healthy diet • Identify that food and drink provide certain nutritional and health benefits which support a healthy lifestyle • Identify that people should eat at least 5 portions of fruit and vegetables a day • Prepare simple dishes hygienically and safely, where needed with a heat source • Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking