



Puttenham Infant School- Progression in Design and Technology (DT)

In Reception, DT is taught through a play-based approach where the children have access to different types of resources (materials, junk modelling, paints, construction, loose parts etc) at all times. Children are encouraged to design their ideas and talk through their ideas with questioning from the adult. They are encouraged to explore different types of materials, ways of attaching/joining parts and think about what resources would work best and why and also how they can make their creations even better with some support.

By the time children leave **Key Stage 1** at the end of Puttenham School they should, through a variety of creative and practical activities, be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment.

When designing and making children should be taught to:

Design	<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
Make	<ul style="list-style-type: none">✓ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]✓ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
Evaluate	<ul style="list-style-type: none">✓ explore and evaluate a range of existing products✓ evaluate their ideas and products against design criteria
Technical Knowledge	<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

Cooking and nutrition:

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

- ✓ understand and apply the principles of a healthy and varied diet.
- ✓ prepare and cook a variety of dishes using a range of cooking techniques.
- ✓ understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

	Reception	Year 1	Year 2
Design	<p>To say what they are going to make.</p> <p>To talk about what they are going to make and how.</p> <p>Begin to show accuracy and care when drawing.</p>	<p>Design purposeful, functional, appealing products for themselves based on simple plans.</p> <p>Generate, develop, model and communicate their ideas through talking and drawing and where appropriate information and communication.</p>	<p>Design purposeful, functional, appealing products for themselves and others based on more detailed plans.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate information and communication.</p>
Make	<p>ELG: Creating with materials</p> <p>To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> <p>To share their creations, explaining the process they have used</p> <p>Fine motor ELG - To use small tools, including scissors, paint brushes and cutlery.</p> <p>To use vocabulary related to design and making e.g. glue, join, change, build, longer/shorter, cut, just right etc).</p>	<p>Select from a range of tools and equipment, explaining their choices with some support.</p> <p>Select from a range of materials and components according to characteristics (Link to science materials)</p> <p>Follow safety and hygiene procedures.</p> <p>measure, mark out, cut and shape materials and components with some support.</p> <p>Experiment with different types of temporary joins (staples, glue, Sellotape, holepunch)</p> <p>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape</p> <p>Assembly, join and combine materials and components with some support.</p> <p>To understand how to weave materials together.</p> <p>Select materials and textiles according to their characteristics.</p>	<p>Plan by suggesting what to do next to improve their design if it has not worked.</p> <p>Select from a range of tools and equipment to perform practical tasks and explain their choices.</p> <p>Select from a wide range of materials and components according to characteristics (Link to science materials).</p> <p>Follow safety and hygiene procedures.</p> <p>Measure, mark out, cut and shape materials and components.</p> <p>Assemble, join and combine materials and components together using a variety of methods e.g. glues, masking tape, staples, sewing.</p> <p>Select from and use a wide range of textiles according to their characteristics and begin to explain their choices.</p> <p>Use sewing techniques more effectively.</p> <p>Assembly, join and combine materials and components.</p> <p>Use finishing techniques to improve the appearance of their product.</p>
Evaluate	<p>To talk about what they have made. To begin to change/adapt their work to improve it further.</p> <p>To talk about what they have made and whether they like it or not and why.</p>	<p>Explore and evaluate a range of existing products.</p> <p>Talk about their design ideas and what they are making.</p> <p>To express an opinion about their products and ideas against design criteria with some support.</p> <p>To suggest how their products could be improved with some support (use the learning line).</p>	<p>To talk about their design ideas and what they have made using appropriate DT vocabulary.</p> <p>To make simple judgements about their products and ideas against design criteria.</p> <p>To suggest how their product could be improved further (use of the learning line).</p>
Technical knowledge	<p>To build with a variety of construction materials supplied in their continuous provision.</p> <p>To begin to ask for materials to improve their design.</p>	<p>To talk about the simple working characteristics of materials and components.</p> <p>To investigate how freestanding structures can be made stronger, stiffer and more stable.</p> <p>To know that a 3-D textiles product can be assembled from two identical fabric shapes.</p> <p>To use the correct technical vocabulary for the projects they are undertaking with support.</p>	<p>talk about the simple working characteristics of materials and components</p> <p>investigate the movement of simple mechanisms such as levers, sliders, wheels and axles</p> <p>investigate how freestanding structures can be made stronger, stiffer and more stable</p> <p>to know that a 3-D textiles product can be assembled from two identical fabric shapes</p>

	To explore and talk about how different parts of objects work e.g. wheels, sliders etc.		to know that food ingredients should be combined according to their sensory characteristics to use the correct technical vocabulary for the projects they are undertaking
Cooking and Nutrition Link to RSHE and science	To begin to understand some food preparation tools, techniques and processes. Practise stirring, mixing, pouring, blending in their play. Discuss how to make an activity safe and hygienic. Discuss use of senses. Understand the need for variety in food. Begin to understand that eating well contributes to good health. Link understanding with growing food in the allotment. Making a dish from the food they have grown.	To understand which foods are healthy for you that everyone should eat at least five portions of fruit and vegetables every day. That all food comes from plants or animals (link to RSHE and science). To know how to prepare simple dishes safely and hygienically, without using a heat source. To know how to use techniques such as cutting, peeling, slicing, grating and spreading with guidance. Begin to make suggestions of a dish they could make using the food they have grown in the allotment (link with science and RSHE).	to understand the basic principles of a healthy and varied diet to prepare dishes that all food comes from plants or animals that food has to be farmed, grown elsewhere (e.g. home) or caught how to name and sort foods into the five groups in The eat well plate that everyone should eat at least five portions of fruit and vegetables every day To know how to prepare simple dishes safely and hygienically, with and without using a heat source. To know how to use techniques such as cutting, peeling, slicing, mixing, grating and spreading using a variety of tools. Begin to make suggestions and follow a recipe using the food have grown in the allotment (link with science and RSHE).

	Year 1		Year 2	
Topics	Rabbit- Y1 Design and make a house for a Pig from the Three Little Pigs Cooking – design and biscuit for an astronaut. Rockets. Design and make a Rocket. Experiment with different temporary joins including sticky tape, hole punch and treasury tags. Designing and making a Christmas card of a robin with a moveable beak.	Fox- Y1 Cooking: Design and make a fruit smoothie Forest School: Explore and use mechanisms to hoist objects using pulleys and baskets Superheroes - Joins – Make a concertina to use in Art project and Christmas Card. Experiment with other joins including sticky tape, staples, hole punch, sewing, treasury tags etc. Design, make and evaluate felt superhero masks. Levers Islands - Continuous Provision – Independently create ways of linking mainland to island using variety of materials. Mini-beasts- designing and making a minibeast	Fox- Y2 Cooking: Baking bread for Harvest Forest School: Explore and use mechanisms to hoist objects using pulleys and baskets Superheroes – Joins – Make a concertina to use in Art project and Christmas Card. Experiment with other joins including sticky tape, staples, hole punch, sewing, treasury tags etc. Design, make and evaluate felt superhero masks. Levers Islands - Continuous Provision - Independently create ways of linking mainland to island using variety of materials. Mini-beasts- designing and making a minibeast with wheels	Otter Superheroes- designing and making masks Baking bread for Harvest Islands- Designing and building lighthouses.