

# Design and Technology

## Year 1 Key Concepts

<u>Design</u>	<u>Design and Technology Key Concepts</u>	<u>Forest School Link</u>
<u>Make</u>	<p>I can play by suggesting what to do next.</p> <p>I can select from a range of tools and equipment.</p> <p>I can select from and use a range of materials and components (including construction materials and kits, textiles, food ingredients and mechanical components).</p>	<p><u>Forest School Link</u></p> <p>When building with sticks, stones, or mud, children will propose next steps like tying sticks together with string, weaving leaves in, or balancing stones differently etc. During role-play children suggest how to extend the activity: “we could make seats around the fire” or “let’s build a table and chairs.” Etc.</p> <p>In Forest School children make practical choice-making — selecting safe, suitable, and effective tools or resources for a given outdoor challenge.</p>
	<p>I generate ideas by drawing on my own experience and using knowledge of existing products.</p> <p>I can state what my product is and who it is for (myself or others),</p> <p>I am beginning to generate and communicate my ideas through talking, drawing and the use of templates and mock ups.</p> <p>I design purposeful, functional and appealing products that are based on a given design criteria.</p> <p>I explore a variety of materials, components and construction kits.</p>	<p><u>Forest School Link</u></p> <p>In Forest School, children think about dens, shelters, or tools they have seen before and use that experience to inspire their own designs with sticks, tarps, or leaves.</p> <p>When creating something in Forest School children can explain whether it is for wildlife, a friend, or themselves.</p> <p>Children might talk through the process of how to build a den using sticks, how to build a bug hotel etc.</p> <p>Children are set a challenge for example build a waterproof shelter or a safe bridge for animals, children ensure it works properly, is strong enough, and looks inviting or well made.</p> <p>Forest School offers natural and man-made resources to experiment with: sticks, leaves, bark, stones, mud, string, ropes, and tarpaulins. Children try different methods of joining these using balancing, wedging, basic knots etc. to see what works best.</p>

	<p>I follow procedures for safety and hygiene.</p> <p>I can cut and shape materials and components.</p> <p>I am beginning to measure and mark out materials and components.</p> <p>I can assemble, join and combine materials and components.</p>	<p>In Forest School, following safety and hygiene procedures is part of every activity — whether using tools, cooking, or caring for the environment.</p> <p>In Forest School, cutting and shaping takes place through practical, hands-on problem solving — making shelters, tools, crafts, or mud kitchen food by adapting natural and man-made materials.</p> <p>In Forest School, measuring and marking out becomes practical and purposeful — ensuring structures are stable, crafts are neat, and recipes work.</p> <p>In Forest School, assembling, joining and combining happens through hands-on, problem-solving tasks — children test how different materials fit together, they learn new joining techniques, and adapt their ideas to make strong, useful, and creative products.</p>
<p><b><u>Evaluate</u></b></p>	<p>I can talk about my design ideas and what I am making.</p> <p>I can suggest how their products could be improved.</p> <p>I am able to explore;          What products are for          Who products are for          What products are for          How products work          What materials products are made from.</p>	<p>Children explaining their den building design – “I used long sticks for the frame and a tarpaulin to keep the rain out’          Their bug hotel design - “I used bark and straw because insects like to hide in small spaces.” Etc.</p> <p>Children explaining:          “Next time I will use thicker branches for the frame so it is stronger.”          “Next time I will make it bigger/smaller and use more materials to fill it” etc.</p> <p>Children examine different shelters or dens etc in the forest area, (natural nests, previous dens). They will consider whether the den is for themselves or a group etc.          Children observe the stability of the structures.          Children will identify the materials used.</p>
<p><b><u>Technical Knowledge</u></b></p>	<p>I know about the simple working characteristics of materials and components.</p> <p>I know about the movement of simple mechanisms such as wheels and axles.</p>	<p>Children learn hands-on how materials behave, they discover strength, flexibility, durability, and suitability of materials in real-world contexts.</p> <p>Children roll logs to move them when they are heavy, noticing how rotation makes moving materials easier.          Pupils build simple mechanisms using sticks as levers etc.</p>

	<p>I know the correct technical vocabulary for the projects I am undertaking.</p>	<p>Names of tools, names of materials, methods of joining materials, ways to reinforce a structure to make it stronger, safer, stable etc.  Examples of some terms that may be used:  Construction, Planning, Resource, Design, feature, Research, Pattern, Shape, Function, Idea, Purpose, Reuse, Modify, Investigate etc.  Ingredient, Healthy diet,  Hygienic, Taste, Smell, Cook, Bake, Soft/hard, Sticky, smooth, cutting, peeling, fruit, vegetable, texture, preference, chopping, slicing, spreading, simmer, boil, mixing, combine etc.</p>
<p><b><u>Cooking and Nutrition</u></b></p>	<p>I know that all food comes from plants or animals.</p> <p>I know that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>I know that everyone should eat at least five portions of fruit and vegetables every day.</p> <p>I can demonstrate how to prepare simple dishes safely and hygienically, without using a heat source.</p>	<p>Children learn which trees produce nuts or fruit. We talk about animals that provide food—like chickens for eggs or bees for honey. Cooking simple foods outdoors (like bread on a stick), and linking the ingredients back to their plant or animal source.</p> <p>Children talk about where food comes from through their imaginative play and re-enacting history – they hunt for animals (meat), they grown their own fruit and vegetables, trade between tribes etc.</p> <p>Children talk about healthy eating when cooking and eating in Forest Schools.</p> <p>Children learn that it is hygienic to wash hands before handling any food during preparation as well as eating during Forest School. They learn that food storage and preparation is very important and needs to be done safely and hygienically.</p>