

Skill	By the end of Hachana (Reception [links to ELG])
<ul style="list-style-type: none"> <li>- To use a range of tools with care and consideration to achieve a certain outcome e.g. scissors, knives.</li> <li>- To explore a range of materials and make choices to represent and express their ideas.</li> <li>- To know and talk about healthy eating.</li> </ul>	<ul style="list-style-type: none"> <li>- Physical development - develop small motor skills so that they can use a range of tools competently, safely and confidently</li> <li>- Expressive Art and Design - Explore, use and refine a variety of artistic effects to express their ideas and feelings.</li> <li>- Personal, Social, Emotional Development –</li> <li>- Know and talk about the different factors that support their overall health and wellbeing: • regular physical activity • healthy eating.</li> </ul>

Skill	By the end of Year 1	By the end of Year 2
<b>Design</b> To understand contexts and users to create purposeful products	<ul style="list-style-type: none"> <li>- To state who their product is for.</li> <li>- To state the product that they are designing.</li> </ul>	<ul style="list-style-type: none"> <li>- To state how their product is suitable and appealing for their target audience.</li> <li>- To feel confident discussing products found in a range of contexts and audiences such as home, school, playgrounds, gardens etc.</li> </ul>
To generate, develop, model and communicate ideas	<ul style="list-style-type: none"> <li>- To look at existing products and discuss own experiences to help come up with ideas.</li> <li>- To develop and communicate ideas through discussion and drawing.</li> </ul>	<ul style="list-style-type: none"> <li>- To develop ideas through exploring materials, construction kits and making templates.</li> <li>- To record ideas in a meaningful way e.g. lists, plans etc.</li> <li>- To use ICT where appropriate to develop and communicate ideas.</li> </ul>
<b>Make</b> To develop practical skills and techniques	<ul style="list-style-type: none"> <li>- To select appropriate tools and equipment for cutting and shaping.</li> </ul>	<ul style="list-style-type: none"> <li>- To select appropriate tools and equipment for joining and finishing.</li> </ul>
To select from a range of materials and components according to their characteristics	<ul style="list-style-type: none"> <li>- To select appropriate materials/components from a given range.</li> </ul>	<ul style="list-style-type: none"> <li>- To select appropriate materials/components from a given range, reasoning their choice in correspondence to the product.</li> </ul>
<b>Evaluate</b> To explore and evaluate existing products	<ul style="list-style-type: none"> <li>- To explore a range of existing products and discuss who they are for, how they are used and what they like and about it.</li> </ul>	<ul style="list-style-type: none"> <li>- To explore a range of existing products and discuss the materials used, how they work and what they like and may change about it.</li> </ul>
To evaluate own ideas and products	<ul style="list-style-type: none"> <li>- To talk about their design ideas and what they are making.</li> </ul>	<ul style="list-style-type: none"> <li>- To make simple judgements about their product and ideas against design criteria.</li> </ul>
<b>Technical Knowledge</b> To build structures	<ul style="list-style-type: none"> <li>- To build a free-standing structure using a range of given materials.</li> </ul>	<ul style="list-style-type: none"> <li>- To build a free-standing structure, making material and design choices that allow for greater strength and stability.</li> </ul>
To explore and use mechanisms	<ul style="list-style-type: none"> <li>- To use simple mechanisms such as levers and sliders.</li> </ul>	<ul style="list-style-type: none"> <li>- To use simple mechanisms such as wheels and axles.</li> </ul>
<b>Cooking and Nutrition</b> To understand where food comes from	<ul style="list-style-type: none"> <li>- To understand that food comes from plants or animals.</li> </ul>	<ul style="list-style-type: none"> <li>- To discuss whether food comes from plant or animal.</li> </ul>
To prepare, cook and understand nutrition	<ul style="list-style-type: none"> <li>- To know that everyone should eat 5 portions of fruit/veg every day.</li> <li>- To prepare a dish without using a heat source.</li> </ul>	<ul style="list-style-type: none"> <li>- To name and sort foods into the 5 food groups.</li> <li>- To know how to use techniques such as cutting, peeling and grating.</li> </ul>

kill	By the end of Year 3	By the end of Year 4
<b>Design</b> To use research to understand contexts and users to create purposeful products	<ul style="list-style-type: none"> <li>- Gather information about the needs and wants of particular groups.</li> <li>- Discuss how their product will meet these needs.</li> </ul>	<ul style="list-style-type: none"> <li>- Gather information about the needs and wants of particular groups. Use focus groups if helpful or internet research.</li> <li>- Discuss how their product will meet these needs.</li> <li>- Indicate the specific design features of their products that will appeal to intended users.</li> </ul>
To generate, develop, model and communicate ideas	<ul style="list-style-type: none"> <li>- To generate ideas based on the needs of the user.</li> <li>- To model their discussed ideas on paper in a structured means such as an annotated drawing.</li> </ul>	<ul style="list-style-type: none"> <li>- To confidently discuss design ideas and how they meet contextual purpose.</li> <li>- To create cross-sectional and exploded diagrams of their product.</li> </ul>
<b>Make</b> To develop practical skills and techniques	<ul style="list-style-type: none"> <li>- Select appropriate tools for cutting and shaping from a given range.</li> </ul>	<ul style="list-style-type: none"> <li>- Discuss the most appropriate tools for the joining and finishing from a given range and choose accordingly, giving reason for their choice.</li> </ul>
To select from a range of materials and components according to their characteristics	<ul style="list-style-type: none"> <li>- To discuss and decide on appropriate materials and components based on what needs task to be done E.g what to use to safely cut/shape our model.</li> </ul>	<ul style="list-style-type: none"> <li>- To discuss and decide on appropriate materials and components (not from given range), explaining why they have made this choice.</li> </ul>
<b>Evaluate</b> To evaluate and analyse existing products	<ul style="list-style-type: none"> <li>- To explore a range of existing products and investigate: Who designed the product and where How well they have been made What materials were chosen How well their fit the intended purpose?</li> </ul>	<ul style="list-style-type: none"> <li>- To explore a range of existing products and investigate: How well products achieve their purpose How well products meet the needs of the user Whether products can be recycled or reused and how they know? Consider packaging and link to the materials that can and can't be recycled and use this to inform their materials choice.</li> </ul>
To evaluate own ideas and products	<ul style="list-style-type: none"> <li>- To refer to their design criteria and evaluate against this.</li> </ul>	<ul style="list-style-type: none"> <li>- To identify strengths and weaknesses of their product and ideas.</li> </ul>
To understand how key events/individuals have shaped the world	<ul style="list-style-type: none"> <li>- To name an inventor/designer/engineer and what they created.</li> </ul>	<ul style="list-style-type: none"> <li>- To name an inventor/designer/engineer and comment on how they use this product in their own life.</li> </ul>
<b>Technical Knowledge</b> To build structures		<ul style="list-style-type: none"> <li>- To make material and design choices that allow for strong, stiff structure that can stand alone.</li> </ul>
To use mechanical systems	<ul style="list-style-type: none"> <li>- To understand and explain how mechanical systems such as levers create movement.</li> </ul>	
To use electrical systems	<ul style="list-style-type: none"> <li>- To know how simple electrical circuits and components can be used to create functional products.</li> </ul>	-
To apply understanding of computing		<ul style="list-style-type: none"> <li>- To know how to create a simple program on a computer.</li> </ul>
<b>Cooking and Nutrition</b> To understand where food comes from	<ul style="list-style-type: none"> <li>- To understand that food has to be farmed, caught or grown.</li> </ul>	<ul style="list-style-type: none"> <li>- To discuss where specific food is produced e.g. potato is grown, fish is caught, chicken is reared.</li> </ul>
To apply the principles of a healthy diet	<ul style="list-style-type: none"> <li>- To know that a healthy diet is made up of a variety and balance of different food and drink.</li> </ul>	<ul style="list-style-type: none"> <li>- To know that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>
To prepare, cook and understand nutrition	<ul style="list-style-type: none"> <li>- To know how to prepare and cook a variety of predominantly savoury dishes safely.</li> </ul>	<ul style="list-style-type: none"> <li>- To know how to prepare and cook a variety of dishes, using a heat source and a range of techniques such as peeling, chopping, kneading, mixing.</li> </ul>

Skill	By the end of Year 5	By the end of Year 6
<b>Design</b> To understand contexts, users and purposes	<ul style="list-style-type: none"> <li>- Carry out guided research (using web-based resources, questionnaires etc) about their intended audience.</li> <li>- Identify the needs, wants and preferences of their intended audience.</li> </ul>	<ul style="list-style-type: none"> <li>- Carry out independent research (using web-based resources, questionnaires etc) about their intended audience.</li> <li>- Develop a design criterion to ensure the product is fit for audience, purpose and context.</li> </ul>
To generate, develop, model and communicate ideas	<ul style="list-style-type: none"> <li>- To create a detailed design criterion, using knowledge gathered through research.</li> <li>- To create templates/pattern pieces of their product.</li> </ul>	<ul style="list-style-type: none"> <li>- To create and design a product that is fit for purpose, audience and context, using prototypes to aide efficiency.</li> </ul>
<b>Make</b> To develop practical skills and techniques	<ul style="list-style-type: none"> <li>- To independently select the appropriate tools for a design task.</li> </ul>	<ul style="list-style-type: none"> <li>- To independently select the appropriate tools for a design task and give reason for their choice.</li> </ul>
To select from a range of materials and components according to their characteristics	<ul style="list-style-type: none"> <li>- To independently select the appropriate materials/components for a design task.</li> </ul>	<ul style="list-style-type: none"> <li>- To independently select the appropriate materials/components for a design task and give reason for their choice.</li> </ul>
<b>Evaluate</b> To evaluate existing products	<ul style="list-style-type: none"> <li>- To explore a range of existing products and investigate: How well products meet user's needs and wants How innovative products are</li> </ul>	<ul style="list-style-type: none"> <li>- To explore a range of existing products and investigate: How well products meet user's needs and wants How sustainable products are</li> </ul>
To evaluate own ideas and products	<ul style="list-style-type: none"> <li>- To critically evaluate the quality of their product, considering whether it is fit for purpose and for the intended user.</li> </ul>	<ul style="list-style-type: none"> <li>- To critically evaluate the product against their design criteria, considering the quality of the design, the manufacturing and the opinion of potential user.</li> </ul>
To understand how key events/individuals have shaped the world	<ul style="list-style-type: none"> <li>- To discuss how an inventor/designer/engineer's product has made an impact on society.</li> </ul>	<ul style="list-style-type: none"> <li>- To discuss how an inventor/designer/engineer's product has made an impact on society, commenting and analysing on the positive and negative aspects.</li> </ul>
<b>Technical Knowledge</b> To build structures	<ul style="list-style-type: none"> <li>- To discuss what materials they could use for a product and how this may affect the outcome.</li> <li>- To begin to understand how to reinforce and strengthen a 3d framework.</li> </ul>	<ul style="list-style-type: none"> <li>- To make material choices that allow for strong, stiff structure that can stand alone and justify their choices.</li> <li>- To know how to reinforce and strengthen a 3d framework.</li> </ul>
To use mechanical systems	<ul style="list-style-type: none"> <li>- To understand and explain how mechanical systems such as pulleys create movement.</li> </ul>	<ul style="list-style-type: none"> <li>- To understand and explain how mechanical systems such as gears create movement.</li> </ul>
To use electrical systems	<ul style="list-style-type: none"> <li>- To know how more complex electrical circuits and components can be used to create functional products.</li> </ul>	
To apply understanding of computing		<ul style="list-style-type: none"> <li>- To know how to program a computer to complete a chosen output.</li> </ul>
<b>Cooking and Nutrition</b> To understand where food comes from	<ul style="list-style-type: none"> <li>- To understand how seasons may affect the food available.</li> </ul>	<ul style="list-style-type: none"> <li>- To understand how food is processed into ingredients that can be eaten or cooked.</li> </ul>
To prepare, cook and understand nutrition	<ul style="list-style-type: none"> <li>- To understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</li> <li>- To know how to prepare and cook a variety of dishes, using a heat source and a range of techniques such as peeling, chopping, kneading, mixing.</li> </ul>	<ul style="list-style-type: none"> <li>- To discuss how recipes can be adapted, to change the appearance, taste and texture.</li> <li>- To know how to prepare and cook a variety of dishes, using a heat source and a range of techniques such as peeling, chopping, kneading, mixing.</li> </ul>