

Design Technology Non-Negotiable Key Skills, Knowledge and Vocabulary

Key Vocabulary	Key Skills	Key Knowledge	Key Vocabulary
Year 3	<p>Urban Pioneers I can select and safely use a wider range of tools to use when making my product I can accurately measure and form the sections of my product making cuts and holes. When creating a complex structure I can decide how to strengthen, stiffen and reinforce it. I can make a product which uses both electrical and mechanical components.</p> <p>Tribal Tales I can describe the purpose of my products and explain how design features of my product will work. I can choose a textile both for its appearance and qualities I can adapt my design criteria as I develop my product to meet a range of requirements.</p> <p>Tremors I can select and safely use a wider range of tools to use when making my product I can adapt my design criteria as I develop my product to meet a range of requirements. When creating a complex structure I can decide how to strengthen, stiffen and reinforce it. I can accurately measure and form the sections of my product making cuts and holes.</p> <p>Food for Thought I can create a menu that is varied and healthy and put together a step-by-step plan which shows the order and also what equipment and tools they need.</p>	<p>Urban Pioneers Be familiar with a range of tools and know how to use them safely. Know the purpose of products being design, and understand how they will work. Apply my knowledge of how to strengthen, stiffen and reinforce. Understand and use mechanical systems in my products. Understand and use electrical systems in my products.</p> <p>Tribal Tales Know the design criteria of a given product. Know the qualities of a range of textiles.</p> <p>Tremors Be familiar with a range of tools and know how to use them safely. Know the design criteria of a given product. Apply my knowledge of how to strengthen, stiffen and reinforce.</p> <p>Food for Thought Recognise where and how ingredients are grown, reared, caught and processed. Know to follow a recipe in chronological order.</p>	<p>Urban Pioneers function, mechanism, design, equipment, practical, evaluate, model, structure, construct, criteria, tool, computer, test, packaging, label, environment</p> <p>Tribal Tales finish, template, develop, textile designer, shape, cut, material,</p> <p>Tremors plan, criteria, strengthen, stiffen, reinforce, requirements,</p> <p>Food for Thought improve ingredient, recipe, cooking, technology, chronological, processed, reared,</p>

	<p>I can follow a recipe and use simple cooking techniques, describing how my combined ingredients come together.</p> <p>I can recognise where and how ingredients are grown, reared, caught and processed</p> <p>I can select and safely use a wider range of tools to use when making my product</p> <p>Predators</p> <p>When creating a complex structure I can decide how to strengthen, stiffen and reinforce it.</p> <p>I can make a product which uses both electrical and mechanical components.</p> <p>I can accurately measure and form the sections of my product making cuts and holes.</p> <p>Gods and Mortals</p> <p>When creating a complex structure I can decide how to strengthen, stiffen and reinforce it</p> <p>I can accurately measure and form the sections of my product making cuts and holes.</p>	<p>Be familiar with a range of cooking equipment and tools.</p> <p>Know the design criteria of a given product.</p> <p>Predators</p> <p>Apply my knowledge of how to strengthen, stiffen and reinforce.</p> <p>Understand and use mechanical systems in my products.</p> <p>Understand and use electrical systems in my products.</p> <p>Gods and Mortals</p> <p>Apply my knowledge of how to strengthen, stiffen and reinforce.</p>	<p>Predators</p> <p>mechanical, electrical</p>
Year 4	<p>Road Trip USA</p> <p>Produce a plan to show how product features will be appealing to others.</p> <p>Create fit for purpose products by researching the needs of the user.</p> <p>Evaluate the product, referring to both its appearance and the way it works.</p> <p>Suggest some improvements and say what was good and not so good about the original design.</p> <p>Discuss why tools and materials have been selected for the products and use them carefully.</p> <p>Potions</p> <p>Produce a plan to show how product features will be appealing to others.</p>	<p>Road Trip USA</p> <p>Discuss why I have selected the tools and materials for my products and use them carefully (including measuring) .</p> <p>Potions</p> <p>Discuss why I have selected the tools and materials for my products and use them carefully (including measuring) e.g. textures and design of potion bottles.</p>	<p>Road Trip USA</p> <p>Totem pole</p> <p>Design</p> <p>Materials</p> <p>Construct</p> <p>Join</p> <p>Potions</p> <p>Clay</p> <p>Design</p> <p>Malleable</p> <p>Mould</p> <p>Tools</p> <p>Traders and Raiders</p> <p>Material</p>

	<p>Recognise if the product needs to be made more appealing by changing features. Create fit for purpose products by researching the needs of the user. Evaluate the product, referring to both its appearance and the way it works. Suggest some improvements and say what was good and not so good about the original design. Discuss why tools and materials have been selected for the products and use them carefully.</p> <p>Traders and Raiders Produce a plan to show how product features will be appealing to others. Recognise if the product needs to be made more appealing by changing features. Evaluate the product, referring to both its appearance and the way it works. Suggest some improvements and say what was good and not so good about the original design. Discuss why tools and materials have been selected for the products and use them carefully.</p> <p>Cracking Contraptions Produce a plan to show how product features will be appealing to others. Recognise if the product needs to be made more appealing by changing features. Create fit for purpose products by researching the needs of the user. Evaluate the product, referring to both its appearance and the way it works. Discuss inventors and their contribution to design and technology.</p>	<p>can select and safely use a wider range of tools to use when making my product I can select from, and use, a wider range of materials and components e.g. construction material, textiles and ingredients to make sure my product looks attractive.</p> <p>Traders and Raiders Discuss why I have selected the tools and materials for my products and use them carefully (including measuring) e.g. textures . When creating a complex structure I can decide how to strengthen, stiffen and reinforce it.</p> <p>Cracking Contraptions Discuss inventors and their contribution to design and technology I can select and safely use a wider range of tools to use when making my product. I can select from, and use, a wider range of materials and components e.g. construction material, textiles and ingredients to make sure my product looks attractive.</p> <p>Burps, Bottoms and Bile Recognise where and how ingredients are grown, reared, caught and processed. I can follow a recipe and use simple cooking techniques, describing how my combined ingredients come together. Seasonality – which fruits are currently in season? Understanding why it is better to use seasonal fruits. Developing an understanding of knife skills and different cutting techniques, which in turn has an impact of the aesthetic properties of the product.</p>	<p>Purpose Card Straw Structure</p> <p>Cracking Contraptions Design Audience Purpose Invention Specification Material Construction</p> <p>Burps, Bottoms and Bile Recipe Hygiene Taste Develop Safety Seasonality Ingredients Technique</p> <p>Blue Abyss Automata Mechanical system Movement Cam Mechanism Construct Join Evaluate</p>
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Suggest some improvements and say what was good and not so good about the original design.
Discuss why tools and materials have been selected for the products and use them carefully.

Burps, Bottoms and Bile

Write a simple recipe and use cooking techniques to create the dish, being hygienic and safe.
Know the difference between food that is grown and food that is processed.
Describe seasonality in food production.
Produce a plan to show how product features will be appealing to others.
Recognise if the product needs to be made more appealing by changing features.
Create fit for purpose products by researching the needs of the user.
Evaluate the product, referring to both its appearance and the way it works.
Suggest some improvements and say what was good and not so good about the original design.

Blue Abyss

Produce a plan to show how product features will be appealing to others.
Recognise if the product needs to be made more appealing by changing features.
Evaluate the product, referring to both its appearance and the way it works.
Suggest some improvements and say what was good and not so good about the original design.
Discuss why tools and materials have been selected for the products and use them carefully.
Add a mechanical system to the product.

Awareness and critical understanding of food hygiene and safety – food, tools and equipment.

Blue Abyss

Add a mechanical system to my product
Suggest improvements when using a mechanical system.
Understanding of cam mechanisms – how does the shape of the cam affect the movement?
Consideration of the construction process – making accurate measurements in order to ensure materials are the right size and shape.
Developing problem solving skills in order to identify and correct any issues.

	Suggest improvements when using a mechanical system.		
Year 5	<p>Scream Machine I can design innovative, functional and appealing products aimed at a particular group. I can present a range of alternative ideas using annotated sketches, cross- sectional drawings and exploded diagrams and suggest pros and cons for each. I can expertly use appropriate tools and materials for my products and understand why these are being used. I can use accurate measurements so that everything is precise. I can create my own electrical system e.g. using switches, bulbs, buzzers and motors. I can investigate using an electrical system in my product</p> <p>Alchemy Island I can design innovative, functional and appealing products aimed at a particular group. I can present a range of alternative ideas using annotated sketches, cross- sectional drawings and exploded diagrams and suggest pros and cons for each. I can expertly use appropriate tools and materials for my products and understand why these are being used. I can use accurate measurements so that everything is precise. I can create my own electrical system e.g. using switches, bulbs, buzzers and motors. I can make a prototype.</p> <p>Peasants, Princes and Pestilence.</p>	<p>Scream Machine I can discuss how innovative a product is and suggest improvements. I can critically evaluate the appearance and function against original criteria of my product using the views of others and my own feedback. I can recognise the effect of changing part of my electrical system and how this will impact on the use of my product.</p> <p>Alchemy Island I can discuss how innovative a product is and suggest improvements. I can discuss how innovative a product is and suggest improvements. I can recognise the effect of changing part of my electrical system and how this will impact on the use of my product.</p> <p>Peasants, Princes and Pestilence I can discuss how innovative a product is and suggest improvements. I can recognise how inventors have been innovative with their products and the effect of this. I can discuss how innovative a product is and suggest improvements. I can critically evaluate the appearance and function against original criteria of my product using the views of others and my own feedback.</p>	<p>Scream Machine Design, tools, materials, measurements, electrical, buzzers, bulbs, switches, evaluate, discuss, innovate, improve, product.</p> <p>Alchemy Island Functional, innovative, sketches, drawings, diagrams, tools, materials, electrical system, product, evaluate critically</p> <p>Peasants, Princes and Pestilence Tools, materials, product, appearance, inventors, innovate, evaluate.</p> <p>Allotment detailed, varied, hygienic, seasonal, innovative, functional, appealing, alternative, annotated, cross-sectional drawings, exploded diagrams, critically evaluate, expert, precise, improve ingredient, recipe, cooking, technology, chronological, processed, reared,</p> <p>Moon Buggies Product, measurements, design, improve, innovate, appearance.</p>

<p>I can expertly use appropriate tools and materials for my products and understand why these are being used. I can use accurate measurements so that everything is precise.</p> <p>I can critically evaluate the appearance and function against original criteria of my product using the views of others and my own feedback.</p> <p>Allotment</p> <p>I can create more detailed recipes with a step by step plan that someone else could follow and discuss why the recipe is varied and healthy, including how to be hygienic and safe.</p> <p>I can make recipes that use ingredients appropriate for the season</p> <p>I can design innovative, functional and appealing products aimed at a particular group.</p> <p>I can present a range of alternative ideas using annotated sketches, cross- sectional drawings and exploded diagrams and suggest pros and cons for each.</p> <p>I can critically evaluate the appearance and function against original criteria of my product using the views of others and my own feedback</p> <p>I can expertly use appropriate tools and materials for my products and understand why these are being used</p> <p>I can use accurate measurements so that everything is precise.</p> <p>Moon Buggies</p> <p>I can design innovative, functional and appealing products aimed at a particular group.</p> <p>I can present a range of alternative ideas using annotated sketches, cross- sectional drawings and exploded diagrams and suggest pros and cons for each.</p>	<p>Allotment</p> <p>I can discuss how innovative a product is and suggest improvements.</p> <p>I can critically evaluate the appearance and function against original criteria of my product using the views of others and my own feedback</p> <p>Moon Buggies</p> <p>I can present a range of alternative ideas using annotated sketches, cross- sectional drawings and exploded diagrams and suggest pros and cons for each.</p> <p>I can discuss how innovative a product is and suggest improvements.</p> <p>I can recognise how inventors have been innovative with their products and the effect of this.</p> <p>I can critically evaluate the appearance and function against original criteria of my product using the views of others and my own feedback.</p>	
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	<p>I can expertly use appropriate tools and materials for my products and understand why these are being used. I can use accurate measurements so that everything is precise.</p>		
<p>Year 6</p>	<p>Blood Heart I can create detailed recipes with instructions and explain how it is varied and healthy, including how to be hygienic and safe. I can make recipes that use ingredients appropriate for the season and meet the requirements of a particular target audience. I can hold feedback sessions in order to develop my designs and products and consider culture and society in my designs. I can justify why I selected specific materials. I can follow my plan and refine if necessary in order to meet all design criteria</p> <p>A Child's War I can hold feedback sessions in order to develop my designs and products and consider culture and society in my designs. I can justify why I selected specific materials. I can follow my plan and refine if necessary in order to meet all design criteria</p> <p>Revolution no D&T planned by CT</p> <p>Darwin's Delights no D&T planned by CT</p> <p>Hola Mexico no D&T planned by CT</p>	<p>Blood Heart I can conduct market research to ensure my designs are functional, innovative and appropriate for a particular individual or group.</p> <p>A Child's War I can conduct market research to ensure my designs are functional, innovative and appropriate for a particular individual or group.</p>	<p>Blood Heart justify, market research, functional, innovative, appropriate, purpose, varied, seasonal, target audience, refine, feedback,</p>