Primary Phase Curriculum Map 2021-22

Subject Area: DT

High Hazels Academy
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Part of United Learning

This Phase Curriculum Map is linked to the National Curriculum, the objectives have been further developed into sequential DT blocks.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Food Nutrition	*Begin to understand some food preparation tools, techniques and processes *Practise stirring, mixing, pouring, blending *Discuss how to make an activity safe and hygienic *Discuss use of senses *Understand need for variety in food *Begin to understand that eating well contributes to good health 	Begin to understand that all food comes from plants or animals. Explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught. Start to understand how to name and sort foods into the five groups in 'The Eat well plate' Begin to understand that everyone should eat at least five portions of fruit and vegetables every day. Know how to prepare simple dishes safely and hygienically, without using a heat source. Know how to use techniques such as cutting, peeling and grating.	Understand that all food comes from plants or animals. Know that food has to be farmed, grown elsewhere (e.g. home) or caught. Understand how to name and sort foods into the five groups in 'The Eat well plate' Know that everyone should eat at least five portions of fruit and vegetables every day. Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. Demonstrate how to use techniques such as cutting, peeling and grating.	Start to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Start to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' Begin to know that to be active and healthy, food and drink are needed to provide energy for the body.		Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. Begin to understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking. Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Begin to understand that different food and drink contain different	

		 				substances – nutrients, water and fibre – that are needed for health. 	
Textiles	Children learn how to weave with a range of different fabrics. 		Children learn how to cut out shapes which have been created by drawing round a template onto the fabric. Children begin to sew using a range of basic stitches. Textile Cross stitch  Running stitch	(	Children are able to use a pattern and are introduced to making a prototype of a product. Sewing skills are becoming more accurate.  Embroidery Pattern Oversew	Children can create products using pattern pieces and demonstrate an awareness of seam allowance. They are taught how to blanket stitch.  Embroidery Pattern Oversew	Children can pin and tack fabric pieces together. They can join fabrics by over sewing, back stitch, blanket stitch and are introduced to machine sewing. Children are able to make quality products with increasing accuracy and independence.  Seem allowance Backstitch Blanket Stitch **Textiles – Mastery:** Children are able to make quality products, evidencing

							a range of textile skills of a particularly high standard.
Design	Select appropriate resources *Use gestures, talking and arrangements of materials and components to show design * Use contexts set by the teacher and myself *Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)	(	have own ideas and plan what to do next * explain what I want to do and describe how I may do it * explain purpose of product, how it will work and how it will be suitable for the user * describe design using pictures, words, models, diagrams, begin to use ICT * design products for myself and others following design criteria * choose best tools and materials, and explain choices * use knowledge of existing products to produce ideas	*'	* use research for design ideas * show design meets a range of requirements and is fit for purpose *begin to create own design criteria *have at least one idea about how to create product and suggest improvements for design. * produce a plan and explain it to others *say how realistic plan is. *include an annotated sketch *make and explain design decisions considering availability of resources *explain how product will work * make a prototype *begin to use computers to show design.	*use internet and questionnaires for research and design ideas *take a user's view into account when designing * begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose *create own design criteria * have a range of ideas *produce a logical, realistic plan and explain it to others. *use cross-sectional planning and annotated sketches * make design decisions considering time and resources. *clearly explain how parts of product will work. *model and refine design ideas by making prototypes and using pattern pieces. *use computer-aided designs	* draw on market research to inform design * use research of user's individual needs, wants, requirements for design * identify features of design that will appeal to the intended user * create own design criteria and specification * come up with innovative design ideas *follow and refine a logical plan. *use annotated sketches, cross-sectional planning and exploded diagrams * make design decisions, considering, resources and cost * clearly explain how parts of design will work, and how they are fit for purpose * independently model and refine design ideas by making prototypes and using pattern pieces * use computer-aided designs
Make	*Construct with a purpose, using a variety of resources	*explain what I'm making and why	*explain what I am making and why it fits the purpose	*select suitable tools/equipment, explain	* select suitable tools and equipment, explain choices in relation to required	* use selected tools/equipment with good level of precision	* use selected tools and equipment precisely

	*Use simple tools and techniques *Build / construct with a wide range of objects *Select tools & techniques to shape, assemble and join *Replicate structures with materials / components *Discuss how to make an activity safe and hygienic *Record experiences by drawing, writing, voice recording *Understand different media can be combined for a purpose	*consider what I need to do next *select tools/equipment to cut, shape, join, finish and explain choices *measure, mark out, cut and shape, with support *choose suitable materials and explain choices *try to use finishing techniques to make product look good *work in a safe and hygienic manner	*make suggestions as to what I need to do next. *join materials/components together in different ways *measure, mark out, cut and shape materials and components, with support. *describe which tools I'm using and why *choose suitable materials and explain choices depending on characteristics. *use finishing techniques to make product look good *work safely and hygienically	choices; begin to use them accurately * select appropriate materials, fit for purpose. * work through plan in order *consider how good product will be * begin to measure, mark out, cut and shape materials/components with some accuracy * begin to assemble, join and combine materials and components with some accuracy * begin to apply a range of finishing techniques with some accuracy	techniques and use accurately *select appropriate materials, fit for purpose; explain choices * work through plan in order. * realise if product is going to be good quality * measure, mark out, cut and shape materials/components with some accuracy *assemble, join and combine materials and components with some accuracy *apply a range of finishing techniques with some accuracy	* produce suitable lists of tools, equipment/materials needed *select appropriate materials, fit for purpose; explain choices, considering functionality * create and follow detailed step-by-step plan * explain how product will appeal to an audience * mainly accurately measure, mark out, cut and shape materials/components *mainly accurately assemble, join and combine materials/components * mainly accurately apply a range of finishing techniques * use techniques that involve a small number of steps * begin to be resourceful with practical problems	*produce suitable lists of tools, equipment, materials needed, considering constraints * select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics * create, follow, and adapt detailed step-by-step plans *explain how product will appeal to audience; make changes to improve quality * accurately measure, mark out, cut and shape materials/components * accurately assemble, join and combine materials/components * accurately apply a range of finishing techniques * use techniques that involve a number of steps * be resourceful with practical problems
Evaluate	*Adapt work if necessary *Dismantle, examine, talk about existing objects/structures *Consider and manage some risks *Practise some appropriate safety measures independently *Talk about how things work	*Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria). *When looking at existing products explain what they like and dislike about products and why. *Begin to evaluate their products as they are developed, identifying	*Evaluate their work against their design criteria. *Look at a range of existing products explain what they like and dislike about products and why. *Start to evaluate their products as they are developed, identifying	*Start to evaluate their product against original design criteria *e.g. how well it meets its intended purpose* *Begin to disassemble and evaluate familiar products and consider the views of others to improve them. *Evaluate the key designs of individuals in design and	*Evaluate their products carrying out appropriate tests. *Start to evaluate their work both during and at the end of the assignment. *Be able to disassemble and evaluate familiar products and consider the views of others to improve them.	*Start to evaluate a product against the original design specification and by carrying out tests. *Evaluate their work both during and at the end of the assignment. *Begin to evaluate it personally and seek evaluation from others.	*Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. *Evaluate their work both during and at the end of the assignment.

	*Look at similarities and differences between existing objects / materials / tools *Show an interest in technological toys *Describe textures	strengths and possible changes they might make.	strengths and possible changes they might make. *With confidence talk about their ideas, saying what they like and dislike about them.	technology has helped shape the world.	*Evaluate the key designs of individuals in design and technology has helped shape the world.	*Evaluate the key designs of individuals in design and technology has helped shape the world.	*Record their evaluations using drawings with labels. *Evaluate against their original criteria and suggest ways that their product could be improved. *Evaluate the key designs of individuals in design and technology has helped shape the world.
Materials	• To manipulate materials to achieve a planned effect. • To construct with a purpose in mind, using a variety of resources. • To select appropriate resources and adapt work where necessary. • To select tools and techniques needed to shape, assemble and join materials they are using To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	*begin to measure and join materials, with some support *describe differences in materials *suggest ways to make material/product stronger	*measure materials *describe some different characteristics of materials *join materials in different ways *use joining, rolling or folding to make it stronger *use own ideas to try to make product stronger	*use appropriate materials *work accurately to make cuts and holes * join materials *begin to make strong structures	*measure carefully to avoid mistakes *attempt to make product strong *continue working on product even if original didn't work *make a strong, stiff structure	*select materials carefully, considering intended use of product and appearance *explain how product meets design criteria *measure accurately enough to ensure precision *ensure product is strong and fit for purpose *begin to reinforce and strengthen a 3D frame	*select materials carefully, considering intended use of the product, the aesthetics and functionality. *explain how product meets design criteria * reinforce and strengthen a 3D frame
Technical knowledge - Mechanisms	To learn how to use a range of tools, e.g. scissors, hole punch, stapler, woodworking tools, rolling pins, pastry cutters. -Learn how everyday objects work by dismantling things.	*begin to use levers or slides	*use levers or slides *begin to understand how to use wheels and axles	*select appropriate tools / techniques *alter product after checking, to make it better *begin to try new/different ideas *use simple lever and linkages to create movement	*select most appropriate tools / techniques *explain alterations to product after checking it *grow in confidence about trying new / different ideas. *use levers and linkages to create movement *use pneumatics to create movement	*refine product after testing *grow in confidence about trying new / different ideas *begin to use cams, pulleys or gears to create movement	*refine product after testing, considering aesthetics, functionality and purpose *incorporate hydraulics and pneumatics *be confident to try new / different ideas *use cams, pulleys and gears to create movement

Technical knowledge – Electrical systems Computer control and monitoring				*use simple circuit in product	*use number of components in circuit *program a computer to control product 	*incorporate switch into product *confidently use number of components in circuit *begin to be able to program a computer to monitor changes in environment and control product	*use different types of circuit in product * think of ways in which adding a circuit would improve product * program a computer to monitor changes in environment and control product **Unit 6d** controllable Vehicles