# Year 1 - Design and Technology

*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  *Explore and evaluate a range of existing products *Evaluate their ideas and products against design criteria	*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 range of materials and components, including construction materials and textiles according to their characteristics.	*Select from and use a range of materials and components, including ingredients according to their characteristics.
DE1 I can use my knowledge of existing products and my own experiences to help generate my ideas.	M1 Materials: I can cut materials safely using tools provided. I can demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).	C1 I understand that all food comes from plants or animals.  I understand that food has to be farmed, grown elsewhere (e.g. home) or caught.  I can understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why.
DE2 I can explore objects and designs to identify likes and dislikes of the designs and products.	M2 Textiles: I can shape textiles using templates. I can colour and decorate textiles.  (add embellishments to fabric)	C2 I can cut ingredients safely and hygienically.
DE3 I can design products that have a clear purpose and an intended user.  I can design using drawings or sketches with simple labels.	M3 Electricals and Electronics:  I can recognise if a battery operated device works or not.	C3 I can measure and weigh food items using non-standard measures (e.g. spoons and cups).
DE4 I can use ICT packages to create a simple plan for a design.  (Colour Magic)	M4 Construction: I can use materials to practise gluing to make and strengthen products.	
DE5 I can say what materials and tools I will use from a limited selection.	M5 Mechanics: I can create products using winding mechanisms and sliders.	
DE6 I can discuss what went well with my product and what I would change next time.		
I can suggest improvements to existing designs.		

### **Year 1 Topic Coverage**

Outdoor A	<u>Let's Play!</u> <u>Land Ahoy!</u>		<u>Let's Play!</u>		Ahoy!
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	DE1, DE2, DE3, DE4,	M3	DE1, DE2, DE3, DE4,		DE1, DE2, DE3, DE4,
	DE5, DE6, M2, C1, C2,		DE5, DE6, M4, M5, C1,		DE5, DE6, M1, M5,
	C3		C2, C3		C1, C2, C3
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### **Vocabulary**

**Designing and Evaluating:** Explore, object, product, deconstruct, design, begin to describe, likes, select tools, scissors, hammer, saw, screw driver, drill, materials, card, paper, fabric, string, ribbon, card board, tubes, boxes, cotton reels, wood, plastic, bottles, dowel, straws, wheels, nails, glue, tape. limited selection, suggest, improve, existing designs, clear purpose, intended user (audience), drawing, sketching, discuss, share, guided evaluation, like, dislike, fit for purpose, test, change.

Cooking and Nutrition: Cut, ingredients, names of ingredients, prepare, safely, hygienically, clean, utensils, knife, chopping board, chop, cut, slice, mix, stir.

Mak	ing: Textiles –	Making:	Making: Construction	Making: Materials –
shape	, fabric, template,	Electricals and	<ul> <li>practise, materials,</li> </ul>	cut, tear, fold, curl,
col	our, red, blue,	electronics –	card, paper, fabric,	shape, safely, tools,
yellow	v, green, orange,	recognise, notice, say,	string, ribbon, card	scissors, materials,
pink	k, purple, black,	battery operated, run,	board, tubes, boxes,	card, paper, fabric,
white,	brown, decorate,	working, not working,	wood, plastic, bottles,	string, ribbon, card
deco	rative materials,	device.	dowel, straws, wheels,	board, tubes, boxes,
pai	int, pompoms,		glue, tape, tools,	cotton reels, wood,
fea	thers, sequins		scissors, gluing, make,	plastic, bottles, dowel,
			strengthen.	straws, wheels, nails,
				glue, tape
			Making: Mechanics -	
			product, levers, axles,	Making: Mechanics -
			handles, move, freely.	product, levers, pivot,
				move, freely.

### I will learn...

Designing and Evaluating: That products can have a design (planning stage) before they are made. • How to explore and discuss designs and objects. • That I can have likes and dislikes when it comes to designs and objects/products. • How to describe what I like about a certain design or object/product. • That there are a range of materials that can be used to create an object/product. • That there are a range of tools that can be used to create an object/product. • How to say which materials I select from a limited selection. • How to say which tools I select from a limited selection. • That I can look at and discuss my current designs saying what I may change. • How to say/give my suggestions for improvements to my current designs. • That objects/products are designed with an intended audience/user in mind. • That objects/products are designed with a clear purpose in mind. • How to create a design with a clear purpose in mind. • That designs can be made up of different information e.g. pictures, research, wording, labels etc. • How to design using drawing/sketching to show my ideas.

Cooking and Nutrition: \*That the word ingredients mean a collection of foods that we are using to create a dish/meal. • That to prepare the ingredients I need to cut them. • That I use a knife to cut ingredients. • How to cut the ingredients using a knife. • That safety when preparing or cooking meals is important. • How to prepare the ingredients safely • How to prepare the ingredients in a hygienic way.

Textiles • That fabric
can be cut into different
shapes. • That I can
use a template to help
me cut the fabric to the
shape that I want. •
How to cut shapes out
of fabric. ∙ How to use
a template to support
me when cutting fabric
so that I achieve the
shape that I want. •
That fabric can be
coloured using other
media (pens, crayons
etc). • That fabric can
be decorated by adding
other media to it

# Electricals and electronics • That some devices are operated by batteries and that some are not. • That when a device is operated by batteries, these batteries can run out and may need changing. • How to test to see if a batteryoperated device is working or not.

## there are a range of materials that can be used to build with in design and technology. • The names of some of the materials that I can use to build with in design and technology. That there are a range of tools that can be used to build with in design and technology. • The names of some of the simpler tools that I can use to build with in design and technology. That there are different

Construction • That

Materials • That there are a range of materials that I can use to create a product. • That materials can be cut using scissors. • How to hold scissors properly. • How to cut into a range materials using scissors. • That there are different cutting and shaping techniques that I can use. • That the cutting and shaping techniques include tearing, folding, and curling. • How to tear different materials. •

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(gluing). • How to	techniques that I can	How to fold different
colour fabric using	use to build with in	materials. ● How to curl
simple media such as	design and technology	different materials.
pens. • How to	which include gluing. •	
decorate fabric by	That gluing can be used	Markania That
gluing decorative items	to make (join) or	Mechanics • That a
to it e.g. sequins.	strengthen	lever is a resting bar
	objects/products. • How	that moves on a pivot. •
	to glue simple materials	How to use a lever in
	together as I will be	one of my products.
	given time to practise.	
	<b>Mechanics •</b> That a	
	winding mechanism	
	uses an axle and a	
	handle. • How to use a	
	winding mechanism in	
	one of my products.	