

DESIGN & TECHNOLOGY – Cycle A

Subject	Key vocab.	Declarative knowledge	Procedural knowledge
Autumn 2 (A) Phase: EYFS	needle thread join material fabric cut safe design push pull	<u>Solar System – Making an Alien Sock Puppet</u> <ul style="list-style-type: none"> I know how to use a needle safely. [Expressive arts and design: Creating with Materials] I know how to join two materials using a needle and thread. [Expressive arts and design: Creating with Materials] I know how to use scissors safely to cut. [Expressive arts and design: Creating with Materials] 	<u>Solar System – Making an Alien Sock Puppet</u> <ul style="list-style-type: none"> I can design a sock puppet. [Expressive arts and design: Creating with Materials] I can cut material safely. [Expressive arts and design: Creating with Materials] I can cut within a few centimetres of the line. [Expressive arts and design: Creating with Materials] I can push a needle through two pieces of material. [Expressive arts and design: Creating with Materials] I can pull thread through two pieces of fabric. [Expressive arts and design: Creating with Materials] I can use a glue spreader to attach eyes to my sock puppet. [Expressive arts and design: Creating with Materials] I can say what I like about my sock puppet. [Expressive arts and design: Creating with Materials] I can recount how I made my sock puppet. [Expressive arts and design: Creating with Materials]
Spring 2 (A) Phase: EYFS	net shape materials strong weak properties tools safely strength cut join	<u>Spring Into Action – Making a Bird Box</u> <ul style="list-style-type: none"> I know how a net folds to make a 3D shape. [Expressive arts and design: Creating with Materials] I know that some materials are strong and some materials are weak. [Expressive arts and design: Creating with Materials] I know how to use tools safely. [Expressive arts and design: Creating with Materials] 	<u>Spring Into Action – Making a Bird Box</u> <ul style="list-style-type: none"> I can explore the strength of different materials. [Expressive arts and design: Creating with Materials] I can design a bird box. [Expressive arts and design: Creating with Materials] I can carefully cut strong materials, using the correct tools, with the support of an adult. [Expressive arts and design: Creating with Materials] I can join materials using glue. [Expressive arts and design: Creating with Materials] I can say what I like about my bird house. [Expressive arts and design: Creating with Materials] I can recount how I made my bird house. [Expressive arts and design: Creating with Materials]
Summer 1 (A) Phase: EYFS	peel cut slice chop mix plan recipe	<u>Healthy Living – Creating a Fruit Salad</u> <ul style="list-style-type: none"> I know how to use a knife safely to cut pieces of fruit. [Expressive arts and design: Creating with Materials] I know how to peel ingredients. [Expressive arts and design: Creating with Materials] 	<u>Healthy Living – Creating a Fruit Salad</u> <ul style="list-style-type: none"> I can plan my recipe by exploring my likes and dislikes when tasting foods. [Expressive arts and design: Creating with Materials] I can peel an orange and a banana. [Expressive arts and design: Creating with Materials] I can use a knife to cut fruit safely, with the support of an adult. [Expressive arts and design: Creating with Materials] I can say what I like about my recipe. [Expressive arts and design: Creating with Materials] I can recount how I made my recipe. [Expressive arts and design: Creating with Materials]
Autumn 2 (A) Phase: Y1/2	cutting folding gluing safe	<u>Marvellous Minibeasts - Constructing a Bug Hotel</u> <ul style="list-style-type: none"> I know who the intended user of my product is. I know that the process for designing and making involves researching, creating and evaluating. I know how to keep myself and others safe when using equipment and tools. 	<u>Marvellous Minibeasts - Constructing a Bug Hotel</u> <ul style="list-style-type: none"> I can explore existing products. I can design products that have a clear purpose and an intended user. I can refine my designs as work progresses. I can safely demonstrate a range of cutting and shaping techniques such as tearing, cutting, folding and curling. I can measure and mark out to the nearest centimetre. I can demonstrate a range of joining techniques, such as gluing and hinges.
Spring 2 (A) Phase: Y1/2	stitching thread running stitch textile template design	<u>Save the Orangutans – Making a Toy Orangutan</u> <ul style="list-style-type: none"> I know that the process for designing and making involves researching, creating and evaluating. I know how to keep myself and others safe when using equipment and tools. 	<u>Save the Orangutans – Making a Toy Orangutan</u> <ul style="list-style-type: none"> I can shape textiles using templates. I can join textiles using running stitch. I can sew sequins onto my design. I can explore existing designs. I can refine my designs as work progresses.

Summer 1 (A) Phase: Y1/2	healthy diet peeling chopping tasting evaluating	<u>Take me to Italy – Cook a Pasta Sauce</u> <ul style="list-style-type: none"> I know that the process for designing and making involves researching, creating and evaluating. I know how to keep myself and others safe when using equipment and tools. 	<u>Take me to Italy – Cook a Pasta Sauce</u> <ul style="list-style-type: none"> I can cut, peel or grate ingredients safely and hygienically. I can measure or weigh using measuring cups or electronic scales. I can assemble or cook ingredients. I can design products that have a clear purpose and an intended user. I can taste ingredients to identify likes and dislikes. I can explore how products have been created by studying a simple recipe. I can review my recipe.
Autumn 2 (A) Phase: Y3/4	solutions safety precautions conical joining techniques finishing cross-sectional diagram	<u>Up in Smoke – Constructing an Erupting Volcano</u> <ul style="list-style-type: none"> I know how to mix solutions safely. I know how to strengthen, stiffen and reinforce the conical volcano structure. I know how to use a safety scalpel to cut a slit. (CyA: Au2) 	<u>Volcanoes – Making a Volcano</u> <ul style="list-style-type: none"> I can produce cross-sectional diagrams to plan my design. I can cut along a line accurately and neatly. I can create a conical net. I can use a slit and tab to join without glue. I can evaluate the success of my model and explain how it could be improved.
Spring 2 (A) Phase: Y3/4	electrical circuit waterproof fit for purpose prototype model strength structure	<u>What a load of rubbish! – Sewing a Waterproof Tent with an Internal Light</u> <ul style="list-style-type: none"> I know that products must be fit for purpose. I know that I must design with my intended user in mind. I know that the triangular shape is used within structures for strength. 	<u>What a load of rubbish! – Sewing a Waterproof Tent with an Internal Light</u> <ul style="list-style-type: none"> I can create annotated sketches to plan my design. I can create a prototype to design a large product. I can select materials and components that are fit for purpose. I can apply my knowledge of electrical circuits to add a light to my design. I know how the inventions of Thomas Edison have helped to shape the world.
Summer 1(A) Phase: Y3/4	produced ingredients (un)healthy grams content consumer	<u>Chocolate – Is it worth it? – Make a Chocolate Product</u> <ul style="list-style-type: none"> I know how to use electric scales to weigh out ingredients. I know how to heat ingredients safely. 	<u>Chocolate – Is it worth it? – Make a Chocolate Product</u> <ul style="list-style-type: none"> I can use research to design appealing products. I can create a prototype with an intended consumer in mind. I can melt chocolate safely. I can use scales to weigh and measure accurately to the nearest gram. I can select ingredients based on their properties. I can follow a recipe. I can gather feedback about my product to evaluate it.
Autumn 2 (A) Phase: Y5/6	product testing triangular	<u>Design and make – Earthquake Proof Structure</u> <ul style="list-style-type: none"> I know how to strengthen and stiffen complex structures. I know that triangles are used in structures for strength. 	<u>Design and make – Earthquake proof structure</u> <ul style="list-style-type: none"> I can design a prototype of my building. I can use research to develop a structure that is fit for purpose. I can use saws to cut wood to size. I can use sanding to give a smooth finish. I can test my product to check that it would withstand an earthquake. I can use this test to influence future designs.
Spring 2 (A) Phase: Y5/6	series circuit switches buzzers cells	<u>Design and Making our own Community</u> <ul style="list-style-type: none"> I know how to use electrical systems to add lighting and a doorbell to my building. 	<u>Design and Making our own Community</u> <ul style="list-style-type: none"> I can generate ideas through discussion, annotated sketches and cross-sectional diagrams. I can use wood, saws and sandpaper to create a structure for my building. I can use electrical circuits to add lightbulbs and a buzzer to my building. I can consider the views of others to improve my work.
Summer 1 (A) Phase: Y5/6	prepare utensils whisking measuring recipe nutritional values	<u>Food – Yorkshire Puddings</u> <ul style="list-style-type: none"> I know how to use electric scales to weigh out ingredients. I know how to use an electric whisk safely. I know how to heat ingredients safely. I know how to use a computer programme to evaluate the nutritional values of my ingredients. 	<u>Food – Yorkshire Puddings</u> <ul style="list-style-type: none"> I can use research to design appealing products. I can create a prototype with an intended consumer in mind. I can whisk my ingredients. I can use scales to weigh and measure accurately to the nearest gram. I can select ingredients based on their properties. I can follow a recipe. I can gather feedback about my product to evaluate it.

DESIGN & TECHNOLOGY – Cycle B

Subject	Key vocab.	Declarative knowledge	Procedural knowledge
Autumn 2 (B) Phase: EYFS	materials waterproof float sink shape cut	<u>Under The Sea – Making a Floating Boat</u> know that different materials are suitable for different purposes. [Expressive arts and design: Creating with Materials] know how to shape materials such as plasticine. [Expressive arts and design: Creating with Materials] know how to cut materials safely using scissors. [Expressive arts and design: Creating with Materials] know how to cut materials accurately using scissors. [Expressive arts and design: Creating with Materials]	<u>Under The Sea – Making a Floating Boat</u> can shape plasticine using my fingers. [Expressive arts and design: Creating with Materials] can test materials whilst planning my design. [Expressive arts and design: Creating with Materials] can cut within a few centimetres of a line, using scissors. [Expressive arts and design: Creating with Materials] can recount how I made my floating boat. [Expressive arts and design: Creating with Materials] can explain why it was helpful to test materials before making my boat. [Expressive arts and design: Creating with Materials]
Spring 1 (B) Phase: EYFS	needle thread join material fabric cut safe design push pull	<u>Materials that we Use – Make a Hat for a Teddy</u> <ul style="list-style-type: none"> I know how to use a needle safely. [Expressive arts and design: Creating with Materials] I know how to join two materials using a needle and thread. [Expressive arts and design: Creating with Materials] I know how to use scissors safely to cut. [Expressive arts and design: Creating with Materials] 	<u>Materials that we Use – Make a Hat for a Teddy</u> <ul style="list-style-type: none"> I can design a hat. [Expressive arts and design: Creating with Materials] I can cut material safely. [Expressive arts and design: Creating with Materials] I can cut within a few centimetres of the line. [Expressive arts and design: Creating with Materials] I can push a needle through two pieces of material. [Expressive arts and design: Creating with Materials] I can pull thread through two pieces of fabric. [Expressive arts and design: Creating with Materials] I can say what I like about my teddy bear’s hat. [Expressive arts and design: Creating with Materials] I can recount how I made my teddy bear’s hat. [Expressive arts and design: Creating with Materials]
Summer 2 (B) Phase: EYFS	peel cut slice chop mix plan recipe	<u>Healthy Living – Make a Fruit Smoothie</u> <ul style="list-style-type: none"> I know how to use a knife safely to cut pieces of fruit. [Expressive arts and design: Creating with Materials] I know how to peel ingredients. [Expressive arts and design: Creating with Materials] 	<u>Healthy Living – Make a Fruit Smoothie</u> <ul style="list-style-type: none"> I can plan my recipe by exploring my likes and dislikes when tasting foods. [Expressive arts and design: Creating with Materials] I can peel an orange and a banana. [Expressive arts and design: Creating with Materials] I can use a knife to cut fruit safely, with the support of an adult. [Expressive arts and design: Creating with Materials] I can say what I like about my smoothie. [Expressive arts and design: Creating with Materials] I can recount how I made my smoothie. [Expressive arts and design: Creating with Materials]
Autumn 2 (B) Phase: Y1/2	cutting folding gluing safety	<u>Penguin Parade - Making a Card With Moving Parts</u> know who the intended user of my product is. know that the process for designing and making involves researching, creating and evaluating. know how to keep myself and others safe when using equipment and tools.	<u>Penguin Parade - Making a Card With Moving Parts</u> can explore existing products. can design products that have a clear purpose and an intended user. can refine my designs as work progresses. can measure and mark out to the nearest centimetre. can safely demonstrate a range of cutting and shaping techniques such as tearing, cutting, folding and curling. can demonstrate a range of joining techniques, such as glueing, hinges.
Spring 1 (B) Phase: Y1/2	stitching thread running stitch textile template design	<u>Magical Memories - Creating a Patchwork Quilt</u> <ul style="list-style-type: none"> I know that the process for designing and making involves researching, creating and evaluating. I know how to keep myself and others safe when using equipment and tools. 	<u>Magical Memories - Creating a Patchwork Quilt</u> <ul style="list-style-type: none"> I can shape textiles using templates. I can join textiles using running stitch. I can sew sequins onto my design. I can explore existing designs. I can refine my designs as work progresses.

Summer 2 (B) Phase: Y1/2	ingredients weighing measuring cook taste likes dislikes	<u>Predators – Making a Healthy Meal</u> <ul style="list-style-type: none"> I know that the process for designing and making involves researching, creating and evaluating. I know how to keep myself and others safe when using equipment and tools. 	<u>Predators – Making a Healthy Meal</u> <ul style="list-style-type: none"> I can cut, peel or grate ingredients safely and hygienically. I can measure or weigh using measuring cups or electronic scales. I can assemble or cook ingredients. I can design products that have a clear purpose and an intended user. I can taste ingredients to identify likes and dislikes. I can explore how products have been created by studying a simple recipe. I can review my recipe.
Autumn 2 (B) Phase: Y3/4	pulley system functional cams	<u>The Lost Villages – Building a Flood Defence with a Pulley System</u> <ul style="list-style-type: none"> I know how key events and individuals have helped to change the world. I know how to use pulleys and cams to create a moving part. 	<u>The Lost Villages – Building a Flood Defence with a Pulley System</u> <ul style="list-style-type: none"> I can investigate and analyse existing products to observe how a pulley system works. I can design a functional structure. I can join construction materials to make a sturdy structure. I can use a pulley system to create a moving part. I can evaluate my design and suggest improvements.
Spring 1 (B) Phase: Y3/4	backstitch fabric right sides together inside out finishing	<u>Fashion in the 1960s - Sewing a Cushion Cover</u> <ul style="list-style-type: none"> I know how the invention of electronic sewing machines helped to shape the world. I know how to use right sides together to hide stitching to create a smooth finish. 	<u>Fashion in the 1960s - Sewing a Cushion Cover</u> <ul style="list-style-type: none"> I can use research to design an appealing product. I can develop my design by analysing pattern pieces from 1960s fashion. I can tie a knot at the end of my thread. I can thread a needle with a large eye. I can use the backstitch to join my fabric. I can sew my fabric with right sides together and then turn them inside out to give a smooth finish. I can evaluate my product against my own design.
Summer 2 (B) Phase: Y3/4	mechanical system lever linkage exploded diagram	<u>Deadly 60 – Making a Snapping Crocodile</u> <ul style="list-style-type: none"> I know how to use mechanical systems such as levers and linkages to make a product with moving parts. I know the difference between levers and linkages. 	<u>Deadly 60 – Making a Snapping Crocodile</u> <ul style="list-style-type: none"> I can communicate my ideas by drawing annotated sketches and exploded diagrams. I can investigate and analyse existing designs when planning my snapping crocodile. I can select and use the correct tools to join my materials. I can evaluate my product against my own existing design.
Autumn 2 (B) Phase: Y5/6	motors electrical systems mechanical systems functions	<u>Transmigration – Creating a Moving Vehicle</u> <ul style="list-style-type: none"> I know how to use mechanical systems, such as gears, pulleys, cams, levers and linkages, in my product. I know how to use electrical systems such as motors to make a moving product. 	<u>Transmigration – Creating a Moving Vehicle</u> <ul style="list-style-type: none"> I can communicate my ideas by creating annotated sketches and exploded diagrams. I can select from a wide range of materials and components, according to their functional properties. I can evaluate my products against my own design criteria.
Spring 1 (B) Phase: Y5/6	blanket stitch precision finishing	<u>Create an Elizabethan costume accessory</u> <ul style="list-style-type: none"> I know how to the blanket stitch to join fabrics. I know how to use interfacing to stiffen fabric. 	<u>Create an Elizabethan costume accessory</u> <ul style="list-style-type: none"> I can use research to develop an appealing design. I can cut materials with precision. I can create my own Elizabethan costume accessory, using a blanket stitch to create a finished edge. I can select from a wide range of textiles. I can consider the view of others when evaluating my final product.
Summer 2 (B) Phase: Y5/6	pulley system tension	<u>Creating a shelter</u> <ul style="list-style-type: none"> I know how to use a pulley system to create an opening door. 	<u>Creating a shelter</u> <ul style="list-style-type: none"> I can investigate and analyse existing products to observe how a pulley system works. I can design a functional structure. I can join construction materials to make a sturdy structure. I can use a pulley system to create a moving part. I can evaluate my design and suggest improvements by comparing my design to other people’s designs.