ALDINGBOURNE SCHOOL PROGRESSION MAP

SUBJECT: DESIGN & TECHNOLOGY

INTENT

Our DT curriculum will develop imaginative thinking in children to enable them to talk about what they like and to solve problems when designing and making. It will enable children to talk about how things work, and to draw and model their ideas as well as evaluate their own and existing products. Throughout this curriculum children will be encouraged to select appropriate tools and techniques for making a product, whilst following safe procedures.

AUTUMN	EYFS	KEY STAGE ONE		KEY STAGE TWO			
	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
KNOWLEDGE	**Fire Engine** Junk Modelling. Children to know fire engines have a specific purpose. Children to learn the different parts of a fire engine. **Technical Knowledge** Weaving.	**3 Little Pigs House** Wood and Art Craft Modelling. **Technical Knowledge** Explore making the frames more stable, e.g. by adding further parts, by having a wider base or by constructing walls in different configurations. Build a frame for a house and begin to explore how they can be made stronger, stiffer and more stable. **Textiles** **Technical Knowledge**	**Healthy Lunch** **Cooking and Nutrition** Use the basic principles of a healthy, balanced diet to prepare a healthy lunch. **Apple Crumble** **Cooking and Nutrition** Use understanding of food groups to create a well-proportioned dessert. **Fresh Fruit Salad** **Cooking and Nutrition** Where different fruit comes from. Use the principles of a healthy and varied diet to make a fresh fruit salad. Knowledge of food hygiene and safe	**Sea Monster** Pneumatic Systems. **Technical Knowledge** Understand how air pressure can be used as a mechanical system in their product to create movement. Techniques for making simple pneumatic systems. **Textiles** **Technical Knowledge** Running, cross and back stitch. Pinning to keep material in place.	**Roman Bridges** Wood Work. **Technical Knowledge** Apply their understanding of how to strengthen, stiffen and reinforce more complex structures to ensure their structures can withhold the weight applied. Understand and use the mechanical system of stored energy to propel the projectile.	**Pop Up Christmas Card** Card Craft. **Technical Knowledge** Understand and use mechanical systems in a Christmas card – levers and linkages.	**Victorian Home** Wood and Art Craft Modeling including live electrical circuits for lighting **Technical Knowledge** Understanding the different rooms and features of a Victorian house. Discuss and select appropriate materials and joining techniques to ensure strength and stability. Demonstrate circuit understanding by including a live electrical circuit with a switch. **Textiles** **Technical Knowledge**

		Using a needle and thread safely. Running stitch and cross stitch.	preparation. Tasting a variety of different fruits and understanding where it has come from / grown. **Cereal** **Cooking and Nutrition** Understand where different cereals come from and how the crops are processed. **Journey of Milk** **Cooking and Nutrition** Understand where milk comes from and how milk can be collected by machine or by hand. **Local Farm Trip** Visit a local farm to see first hand the process of where milk, gains & meat comes from. **Origins of Chocolate** **Cooking and Nutrition** Understand chocolates origin and development over time.				How to select and use material and thread for purpose independently.
SKILLS	**Design** Develop their design ideas through small group discussion. **Make** Begin to assemble, join and combine materials in order to make a fire engine. Use a range of small tools such as scissors. **Evaluate** Share their creations explaining the process they have used.	**Design** Generate ideas and communicate their ideas through talking in a small group and drawing. Design a purposeful, functional house based on the design criteria that will survive the Big Bad Wolf. **Make** Assemble, join and combine 2D and 3D materials into a model. Select from and use a range of tools and	**Design** Design a healthy, balanced lunch based on their preferences within different food groups. Taste a variety of fresh fruit to decide which combination they want to include in their fruit salad. Disassemble a chocolate bar wrapper and use characteristics to design own chocolate bar wrapper.	**Design** Generate, develop, model and communicate their ideas through discussion and annotated sketches. **Make** Select from and use tools and equipment to create a working pneumatic system. Select from and use a wider range of materials and components according to their aesthetic	**Design** Use research and develop design criteria to inform the design of a functional and stable bridge. **Make** Use the appropriate tools to measure, cut, shape and join the wooden pieces. Follow discussions and plans in order to build own bridge. Measure wood accurately and cut to desired lengths. Join wood together and	**Design** Research using a collection of greetings cards with pop-up and moving parts for children to investigate and develop a design criteria. Sketch and annotate design, creating prototypes to check to confirm mechanism desired. **Make** Confidently measure, mark out, cut and shape a range of materials using	**Design** Generate ideas and communicate their ideas through talking in a small group and drawing. Design a purposeful, functional house based on the design criteria that will demonstrate Victorian features. **Make** Assemble, join and combine 2D and 3D materials into a model. Select from and use a range of tools and

		equipment to perform practical tasks such as a saw to cut wood. Measure with support and cut wood safely and correctly to build inner structure of house. Investigate and develop techniques for making the structure stronger, stiffer and more stable. **Evaluate** Evaluate their ideas and products against the design criteria. **Textiles** Safely use a needle and thread to create a picture of a house on binca using running stitch and cross stitch with support.	**Make** Use basic principles of a healthy and varied diet to prepare a healthy lunch, apple crumble and fruit salad from a wide variety of ingredients. Cutting, dicing, slicing, grating and spreading of food chosen. Select from a wide range of tools and materials to construct chocolate bar wrapper. **Evaluate** Describe the ingredients used in their healthy lunch and fruit salad and whether they believe the combination of tastes worked. Taste and evaluate a variety of cereals and decide on a preferred grain. Disassemble a chocolate bar wrapper. Evaluate their chocolate bar wrapper against their design criteria and existing products.	qualities. **Evaluate** Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Compare the effectiveness of different systems. Use appropriate vocabulary to describe how things work. **Textiles** Work with hessian, material strips and thread to sew a water word drape using running, cross and back stitch	strengthen and reinforce as appropriate. Create strong structures. Assemble, join and combine different materials in order for arm to work effectively. **Evaluate** Understand how the Romans' designs and technologies have helped shape the world. Investigate and analyse a range of existing products in various periods of time. Evaluate their products against historical bridges in UK.	appropriate tools, equipment and techniques. Join and combine materials and components accurately in temporary and permanent ways. **Evaluate** Investigate and analyse a range of existing products products. Evaluate their ideas and product against their own design criteria and consider the views of others to improve their work.	equipment to perform practical tasks such as a saw to cut wood. Measure with support and cut wood safely. **Evaluate** Evaluate their ideas and products against the design criteria. Use appropriate vocabulary to describe how the final Victorian house will look with all the rooms combined. Discuss and compare the authenticity of each room. Discuss light features used in each room. **Textiles** Work safely and independently and to use previous taught sewing skills to sew a Victorian sampler using a needle, binca and thread and demonstrating a variety of different stitches.

SPRING	EYFS	KEY STAGE ONE	KEY STAGE TWO

	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
KNOWLEDGE	**Sweet House** Cooking and Nutrition. Knowledge of what makes Gingerbread men. Knowledge of food hygiene and safe preparation.	**Bi-Plane** Wood Work. **Technical Knowledge** Explore and use mechanisms such as wheels and axles in their bi-plane. Build the bi-plane exploring how they can be made stronger and more stable.	**Icarus Scene Model** Wood Work and Craft Skills. **Technical Knowledge** Build a strong, stiff and stable structure using knowledge of how to make a strengthened structure. Techniques for holding axles to enable them to turn. Understand the need for a stable structure to support the mechanism. **Textiles** **Technical Knowledge** Recap running stitch. How to add sequins use thread.	**Minotaur maze** Wood Work. **Technical Knowledge** Use accurate design to measure, cut and assemble a working maze using wood. Attaching wood to maze plate and how to stiffen the structure if needed. Accurate measuring using a design. **Greek Salad** Cooking and Nutrition **Technical Knowledge** Understand and apply the principles of a healthy and varied diet. Prepare ingredients to create a Greek Salad. Understand seasonality and know where and how a variety of ingredients are grown.	**Vegetable Spring Rolls.** Cooking and Nutrition. **Technical Knowledge** Understand and apply the principles of a healthy and varied diet. Knowledge of what makes a vegetarian spring roll. Knowledge of food hygiene and safe preparation. Knowledge of where different foods come from. Know where and how certain ingredients are grown. Understand how ingredients come together to create a dish. Understand why an egg wash is used.	**Textile Disc** Textile. **Technical Knowledge** Understand how to join textile and other mediums to a self-dyed disc to create a motif using a range of stitches.	**Pizza** Cooking and Nutrition **Technical Knowledge** Understand and apply the principles of a healthy and varied diet when designing their pizza. Prepare and cook a pizza design by themselves. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. Understand the origins of pizza and how the Italians have influenced the Western world with their food culture. Understand the process of proving.
SKILLS	Look at a range of ingredients. Children make shortbread in a small group. Use a range of small tools including cooking equipment. Ensuring good food hygiene preparation.	**Make** Select from and use a range of tools and equipment to join and finish. **Evaluate** Explore and evaluate a range of existing planes. Evaluate their ideas and products.	**Design** Design a purposeful, appealing product that anyone could use based on a design criteria. Communicate and model ideas through talking and creating mock-ups to explore effective mechanisms. **Make** Select tools and materials and use correct vocabulary to name them. Assemble,	**Design** Develop design criteria to inform the design of an innovative, functional and appealing products that is fit for purpose. Generate, develop and communicate ideas through discussion, annotated drawings showing accurate measurements and placement. **Make**	**Make** Select and use appropriate knives to cut, slice and dice fruit and vegetables such as pepper, spring onion and lettuce. Use a grater to grate vegetables such as carrot. Use an egg wash and how to fold and fasten spring roll pastry appropriately. **Evaluate** Taste their vegetable	**Design** How to design a product using textiles for a specific purpose. To appreciate the aesthetic qualities of a design. **Make** Measure, cut, pin and sew fabric with accuracy using a variety of chosen stitches. Use simple decorative techniques including dyeing and	**Design** Design a pizza using authentic Italian ingredients. Develop a design criteria when creating authentic Italian food. **Make** Follow instructions to create a base, including kneading and stretching techniques. Cutting, slicing and dicing fresh fruit and vegetables and grating

			cut, join and combine materials to make a winding mechanism using an axle. **Evaluate** Explore and evaluate a range of existing toys that use an axle. Evaluate their ideas and Icarus model against their design criteria. **Textiles** Use thick thread and running stitch to add rays on to calico suns. Sew sequins onto their design to add detail.	Use saws and vices to cut wood for their maze. Select appropriate bonding agent to join the maze together using their detailed plans. Use knives to cut, slice and dice ingredients for a Greek Salad. Prepare dressing by combining ingredients. **Evaluate** Evaluate their ideas and mazes against their own design criteria and consider each other's views to improve their work. Taste their Greek Salad and consider how they can improve their culinary skills.	spring rolls and evaluate their product. Decide which ingredients, if any, they would add more/less if they were to make it again.	embroidery. **Evaluate** Evaluate their ideas and chosen techniques against their own design and how they can improve their work. **Textiles** Use a sewing circle to create a sewn tabard using felt and thread and previous taught stitches onto tie-dyed calico.	the cheese for toppings. Construction of pizza toppings including the sauce. **Evaluate** Tasting pizzas to compare appearance, flavour, texture and cost. Evaluate against a range of existing products.

SUMMER	EYFS	KEY STAGE ONE	KEY STAGE TWO

	YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
KNOWLEDGE	**Giant Bug** Junk Modelling Create a giant bug using junk and craft materials with features of bugs displayed. Attaching 2 materials together to create the desired effect Textiles. **Technical Knowledge** Attaching 2 materials together to create the desired effect using a stitch.	**Underwater Theatre** Craft Modelling **Technical Knowledge** Explore and use mechanisms such as levers, sliders and winding mechanism in their theatre scene. Build structure of a theatre, exploring how they can be made stronger, stiffer and more stable.	**Great British Food** Cooking and Nutrition Use basic principles of a healthy and varied diet to prepare some traditional British dishes. **Technical Knowledge** Understand where food comes from. Understand good food hygiene principles.	**Dinosaur Diorama** Craft Modelling **Technical Knowledge** Apply their knowledge of how to strengthen, stiffen and reinforce a variety of structures included in their dinosaur scene.	**Beetle Boy Back Garden** Junk Modelling **Technical Knowledge** Use knowledge of strengthen, stiffen and reinforce to join 'furniture' to the back garden to create a furniture forest. **Textiles.** **Bayeux tapestry** **Technical Knowledge** Recap running, cross and back stitch. Recap the importance of pinning.	**Weather Vane** Wood and Craft Work **Technical Knowledge** Using their knowledge of how to strengthen, stiffen and reinforce structures to create a weather vane. How to use a protractor to measure angles when cutting wood. Use wind power to create a mechanical system for their weather vane.	**Motorised Car** Wood Work and Electrical Circuits. Carl Benz and the invention of the automobile in 1886 and how it has helped shape the world. **Technical Knowledge** Confidently apply their understanding of how to strengthen stiffen and reinforce a wooden frame for a car. Use mechanical systems to enable the car to move – cams, axles and gears etc. Understand and use electrical systems to enable the car to move.
SKILLS	**Design** Design a bug as a small group offering their own ideas. Children offer explanations for why things might happen with certain materials and construction ideas. **Make** Use a range of small tools including scissors. Safely use and explore a variety of materials, tools and techniques to create the desired effect.	**Design** Design a purposeful, functional, appealing products to entertain others based on a design criteria of incorporating moving parts. Generate, develop and communicate their ideas through talking, drawing and creating templates with support. **Make** Select from and use a range of tools and	**Make** Use a range of tools and equipment including knives, folks, spoons and peelers to cut, chop, measure and mix ingredients to make a Great British dish. Peel and cut potatoes to make chips in their fish and chip dish. Accurately measure and mix ingredients to create soda bread, welsh cakes and short bread. **Evaluate**	**Design** Generate, develop, model and communicate their ideas as a group through discussion and annotated sketches. As a group, design an appealing Dinosaur Diorama as a group. **Make** Constructs with a purpose in mind, using a wide range of materials and components. Select from and use a	**Design** Use a list of furniture and knowledge of materials on the table to discuss which furniture they would like to create in their back garden. **Make** Select from and use a wide range of tools and equipment to cut, shape, join and finish their Furniture Forest. Select from and use a wide range of materials and	**Design** Design a Sussex inspired weather vane that is both functional and appealing. Generate and model ideas through discussion and drawing. Plan main stages of making. **Make** Select appropriate tools, materials, components and techniques to create their weather vane. **Evaluate**	**Design** Generate, develop and model ideas through discussion and drawing. Design against their design criteria to make a working, moving vehicle. **Make** Select appropriate tools, materials, components and techniques. Use tools safely and accurately to construct a frame. Strengthen and reinforce joins as they

	Experiment with colour, design, texture, form and function. Manipulates appropriate selected materials to achieve a planned effect. Constructs with a purpose in mind, using a variety of resources. **Evaluate** Share their creation explaining the process they have used. **Textiles** Introduce the children to the skill of using a needle and thread to join 2 pieces of material together with a stitch and create a Caterpillar on hessian. Extend on the above skills by doing more than 1 stitch at a time on binca shaped butterflies	equipment to cut, shape, join and finish when creating a number of objects and underwater creature puppets to display and move within a static framed theatre. **Evaluate** Explore and evaluate a range of existing toys that use levers, sliders and winding mechanisms. Evaluate their ideas and under water theatre against the design criteria.	Taste and evaluate their Great British dishes.	wide range of tools and equipment to cut, shape, join and finish accurately. Manipulate appropriate selected materials to achieve a planned effect. **Evaluate** Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work further.	components, that are appropriate when creating a product **Evaluate** Investigate a range of existing products **Textiles** Use their interpretation from their sketch book work, create the next phase of the Bayeux Tapestry using calico, thread and needles and their knowledge of stitching.	To evaluate their work according to design criteria and suggest improvements to improve effectiveness.	see appropriate. Construct a working circuit to enable the axle to move. **Evaluate** Investigate and analyse a range of existing products through the ages. Evaluate their work according to design criteria and suggest improvements. Understand how key individuals in the invention of the automobile have helped shaped the world of travel.

IMPACT (END POINTS)						
EYFS	KEY STAGE ONE		KEY STAGE TWO			
YEAR R	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6

A Reception class child is introduced to junk modelling. They can design through group discussions with an adult. They can use scissors and begin to assemble ideas by experimenting with materials, colours, texture and form. They share their creations with their peers. They understand what weaving is and how to attach 2 pieces of material together using a stitch. They have a basic understanding of food hygiene and safe preparation and can create shortbread with an adult.	A Year 1 child has begun to explore how to make a structure stronger, stiffer and more stable. They have been introduced to levers, sliders and winding mechanisms and chose which they want to include in their product. They continue to grow in designing as part of a discussion group and have begun drawing designs with the guidance of an adult. With adult guidance, they can use a saw to cut wood. They are beginning to evaluate their products against existing products and a design criteria. They can use running and cross stitch with support if needed.	A Year 2 child can explore how their product can be made stronger, stiffer and more stable. They understand the working of a winding axel and can use it in their product. They use mock ups when designing a product. They can select tools and materials using the correct vocabulary. They can use running stitch with growing confidence and add sequins to materials. They can cut, dice, slice and peel a variety of food. To evaluate their food products, they taste and decide upon improvement. They understand where different fruit is grown around the world and why. They know where different food comes from such as cereals, milk and chocolate and how food is processed and packaged. They can cook and know the origins of some traditional British food. They understand the basic principles of a healthy varied diet and can use this knowledge to prepare dishes.	A Year 3 children has an understanding of pneumatic systems and how air can create movement. They can apply their knowledge of how to strengthen and stiffen a variety of material. They use measurements and accurate placement in their designs. They can saw wood independently, measure accurately and cut, shape, join and finish a variety of material for a desired effect. They can make a product with a working pneumatic system. They can compare the effectiveness of their products and consider the views of others. They are growing in confidence with running and cross stitch and have been introduced to back stitch. They can pin material for correct placement. They can prepare a Greek salad and understand why the ingredients are native to Greece.	A Year 4 child has an understanding of strong shapes and structures used to support added force over a gap when designing a bridge. They also have an awareness of what makes something float/buoyant. They can strength, stiffen and reinforce a variety of structures. They use research to inform their designs and understand how the Romans were advanced in their design and technology and influenced others through time. They can follow instructions when creating a wooden structure. They have become confident in running, cross and back stitch and pin material without prompting. They understand the aspects of a healthy varied diet. They understand the purpose of an egg wash and know techniques for preparing a variety of vegetables.	A Year 5 children has knowledge of a range of mechanisms including levers and linkages. They can design by investigating existing products and using this knowledge to create a design criteria. They can create prototypes when designing. They use protractors for accurate measurement when joining, fixing and reinforcing a wooden structure. They suggest improvements for effectiveness. They can use a sewing circle and can hand dye material including tie to add to a desired aesthetic.	A Year 6 children knows the origins of the automobile and how it shaped the world. They are confident in choosing an appropriate mechanism for a desired effect. They choose a design style that is effective for them. They can make products that include electrical systems as part of a mechanism. They are mastery in sewing skills. They understand, articulate and apply the principles of a healthy varied diet. They understand seasonality and where ingredients are grown, reared, caught and processed. They are proficient in cooking and nutrition.