## **EYFS**

user.

- Safely use and explore a variety of materials and tools. (Sorting, organising and using food Harvest) Vocab: cut, wash, peel, grate
- Explore new techniques such as: how to print effectively, mould with hands and fold, crunch, tear and cut. (Using paper create a nest for the Owl Babies children must use a combination of fold, crunch, tear & cut) Vocab: crunch, fold, tear, cut
- Talk about new creations. (nests for the owl babies)
- Begin to return to and build upon previous learning
- Independently construct loose parts showing increasing skills in combining, lining up and stacking. Vocab: line, stack, sort, group
- Build and deconstruct loose part models to represent real life or imaginary objects. (to represent life cycles or the Stick Man family)
- Make imaginative structures using loose parts using tools with control.
- Explore a wide range of materials, making simple forms and applying simple decorative features where wanted. (make a submarine for an underwater adventure and/or explore sewing techniques for garden creatures) Vocab: needle, thread, sew, attach, add, decorate
- Independently assemble different pieces to create a picture/pattern.
- Use imagination/ observation building on previous learning to represent their ideas.

• Decide how existing products do/do not achieve their purpose.

• Talk about their design as they develop and identify good and bad points.

• Note changes made during the making process as annotation to plans/drawings.

• Say what they like and do not like about items they have made and attempt to say why.

Discuss how closely their finished product meets their design criteria and how well it meets the needs of the

Describe their drawing/design or ideas and intentions (design a submarine for an underwater adventure) Vocab: design, think, plan,			
Begin to evaluate the process used. (evaluate how they made their clay sculpture & submarine) Vocab: next time, better, change			
Year 1	Year 2		
<u>Design</u>	<u>Design</u>		
<ul> <li>Use pictures and words to convey what they want to design/make.</li> <li>Propose more than one idea for their product.</li> <li>Use kits/reclaimed materials to develop more than one idea.</li> </ul>	<ul> <li>Use pictures and words to convey what they want to design/make.</li> <li>Propose more than one idea for their product.</li> <li>Use kits/reclaimed materials to develop more than one idea.</li> </ul>		
<ul> <li>Model ideas with kits, reclaimed materials.</li> <li>Select appropriate technique explaining: First Next Last</li> <li>Explore ideas by rearranging materials.</li> <li>Select pictures to help develop ideas.</li> <li>Use drawings to record ideas as they are developed.</li> <li>Add notes to drawings to help explanations.</li> <li>Describe their models and drawings of ideas and intentions.</li> </ul>	<ul> <li>Model ideas with kits, reclaimed materials.</li> <li>Select appropriate technique explaining: First Next Last</li> <li>Explore ideas by rearranging materials.</li> <li>Select pictures to help develop ideas.</li> <li>Use drawings to record ideas as they are developed.</li> <li>Add notes to drawings to help explanations.</li> <li>Describe their models and drawings of ideas and intentions.</li> </ul>		
Make	Make		
<ul> <li>Discuss their work as it progresses.</li> <li>Select materials from a limited range that will meet the design criteria.</li> <li>Select and name the tools needed to work the materials.</li> <li>Explain what they are making.</li> <li>Explain which materials they are using and why.</li> <li>Name the tools they are using.</li> <li>Describe what they need to do next.</li> </ul>	<ul> <li>Discuss their work as it progresses.</li> <li>Select materials from a limited range that will meet the design criteria.</li> <li>Select and name the tools needed to work the materials.</li> <li>Explain what they are making.</li> <li>Explain which materials they are using and why.</li> <li>Name the tools they are using.</li> <li>Describe what they need to do next.</li> </ul>		
<ul> <li>Evaluate</li> <li>Explore existing products and investigate how they have been made.</li> </ul>	<ul> <li>Evaluate</li> <li>Explore existing products and investigate how they have been made.</li> </ul>		

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Autumn Term Food Jamie Oliver Healthy snack	<ul> <li>Develop a food vocabulary using taste, smell, texture and feel.</li> <li>Group familiar food products e.g. fruit and vegetables.</li> <li>Explain where food comes from.</li> <li>Cut, peel, grate, chop a range of ingredients</li> <li>Work safely and hygienically.</li> <li>Understand the need for a variety of foods in a diet.</li> <li>Measure and weigh food items, non-statutory measures e.g. spoons, cups.</li> </ul>	Autumn Term Food Paul Hollywood bread	<ul> <li>Develop a food vocabulary using taste, smell, texture and feel.</li> <li>Group familiar food products e.g. fruit and vegetables.</li> <li>Explain where food comes from.</li> <li>Cut, peel, grate, chop a range of ingredients</li> <li>Work safely and hygienically.</li> <li>Understand the need for a variety of foods in a diet.</li> <li>Measure and weigh food items, non-statutory measures e.g. spoons, cups.</li> </ul>
Spring Term Textiles Laura Ashley Chair covering	<ul> <li>Cut out shapes which have been created by drawing round a template onto the fabric.</li> <li>Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape.</li> <li>Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons.</li> <li>Colour fabrics using a range of techniques e.g. fabric paints, printing, painting</li> </ul>	Spring Term <u>Mechanisms-levers and pivots</u> Matthew Reinhart  Moving picture	<ul> <li>Mark out materials to be cut using a template.</li> <li>Fold, tear and cut paper and card.</li> <li>Cut along lines, straight and curved.</li> <li>Use a hole punch. §</li> <li>Insert paper fasteners for card.</li> <li>Experiment with levers and sliders to find different ways of making things move in a 2D plane.</li> </ul>
Summer Term  Mechanisms-wheels and axles  Henry Ford  Moving vehicle	<ul> <li>Join appropriately for different materials and situations e.g. glue, tape.</li> <li>Try out different axle fixings and their strengths and weaknesses.</li> <li>Make vehicles with construction kits which contain free running wheels.</li> <li>Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.</li> <li>Roll paper to create tubes.</li> <li>Cut dowel using hacksaw and bench hook.</li> <li>Attach wheels to a chassis using an axle.</li> </ul>	Summer Term Structures Charles and Ray Eames Chairs	<ul> <li>Explore how to make structures stronger.</li> <li>Investigate different techniques for stiffening a variety of materials.</li> <li>Test different methods of enabling structures to remain stable.</li> <li>Join appropriately for different materials and situations e.g. glue, tape.</li> <li>Mark out materials to be cut using a template. § Use a glue gun with close supervision.</li> </ul>

	Year 3		Year 4
Design  Develop more than one design or adaptation o Plan a sequence of actions to make a product. Record the plan by drawing using annotated si Begin to use cross-sectional and exploded dia. Use prototypes to develop and share ideas. Think ahead about the order of their work an and materials. Propose realistic suggestions as to how they of design ideas. Consider aesthetic qualities of materials chose. Use CAD where appropriate. Make Prepare pattern pieces as templates for their cut slots. Cut internal shapes. Select from a range of tools for cutting shape. Use tools with accuracy. Select from materials according to their function of the stages of the making process. Use appropriate finishing techniques. Evaluate Investigate similar products to the one to be Draw/sketch products to help analyse and und Research needs of user. Identify the strengths and weaknesses of the Decide which design idea to develop. Consider and explain how the finished product meets of Investigate key events and individuals in Design idea to develop.	f an initial design.  ketches. grams.  Id decide upon tools  can achieve their  sen.  In design.  If the process.  It ional properties.  In adde to give starting points for a design.  Iderstand how products are made.  It is design ideas in relation to purpose/user.  It could be improved.  It to design criteria of the user.	<ul> <li>Draw/sketch products to help anale</li> <li>Research needs of user.</li> <li>Identify the strengths and weakne</li> <li>Decide which design idea to develo</li> <li>Consider and explain how the finish</li> </ul>	daptation of an initial design. a product. innotated sketches. kploded diagrams. ire ideas. eir work and decide upon tools how they can achieve their terials chosen.  es for their design.  utting shaping joining and finishing. ent parts of the process. o their functional properties. esss. es. e one to be made to give starting points for a design. lyse and understand how products are made. essess of their design ideas in relation to purpose/user. op. hed product could be improved. luct meets the design criteria of the user.
Autumn Term Structures Ove Arup Stone Age house	<ul> <li>Develop vocabulary related to the project.</li> <li>Create shell or frame structures.</li> <li>Strengthen frames with diagonal struts.</li> <li>Make structures more stable by giving them a wide base.</li> <li>Measure and mark square section, strip and dowel accurately to 1cm.</li> </ul>	Autumn Term Textiles Cath Kidston cushions	<ul> <li>Develop vocabulary for tools materials and their properties.</li> <li>Understand seam allowance.</li> <li>Join fabrics using running stitch, over sewing, blanket stitch.</li> <li>Prototype a product using J cloths.</li> <li>Use prototype to make pattern.</li> <li>Explore strengthening and stiffening of fabrics. Explore fastenings (inventors?) and recreate some.</li> <li>Sew on buttons and make loops.</li> <li>Use appropriate decoration techniques.</li> </ul>
Spring Term <u>Electrical systems</u> Gorge Cardwardine  Nightlights	<ul> <li>Develop vocabulary related to the project.</li> <li>Use mechanical systems such as gears, pulleys, levers and linkages.</li> <li>Incorporate a circuit into a model.</li> <li>Use electrical systems such as switches bulbs and buzzers.</li> <li>Use ICT to control products.</li> <li>Use lolly sticks/card to make levers and linkages.</li> <li>Use linkages to make movement larger or more varied.</li> </ul>	Spring Term Food Ann Kim pizzas	<ul> <li>Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.</li> <li>Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury).</li> <li>Follow instructions/recipes.</li> <li>Make healthy eating choices - use the Eatwell plate.</li> <li>Join and combine a range of ingredients.</li> <li>Explore seasonality of vegetables and fruit.</li> <li>Find out which fruit and vegetables are grown</li> <li>in countries/continents studied in Geography.</li> <li>Develop understanding of how meat/fish are</li> </ul>

			reared/caught.
Summer Term	Develop sensory vocabulary/knowledge using, smell,	Summer term	Develop vocabulary related to the project.
Food	taste, texture and feel	Mechanical Systems	Use mechanical systems such as gears, pulleys, levers
Nadiya Hussain	Analyse the taste, texture, smell and appearance of a	Roman catapult (woodwork)	and linkages.
Seasonal tart	range of foods (predominantly savoury).	Levers and linkages	Incorporate a circuit into a model.
	Follow instructions/recipes.		Use electrical systems such as switches bulbs and
	Make healthy eating choices - use the Eatwell plate.		buzzers.
	Join and combine a range of ingredients.		Use ICT to control products.
	Explore seasonality of vegetables and fruit.		Use lolly sticks/card to make levers and linkages.
	Find out which fruit and vegetables are grown in		Use linkages to make movement larger or more varied.
	countries/continents studied in Geography.		
	Develop understanding of how meat/fish are		
	reared/caught.		

Year 5	Year 6	
<u>Design</u>	<u>Design</u>	
<ul> <li>List tools needed before starting the activity.</li> <li>Plan the sequence of work e.g. using a storyboard.</li> <li>Record ideas using annotated diagrams.</li> <li>Use models, kits and drawings to help formulate design ideas.</li> <li>Combine modelling and drawing to refine ideas.</li> <li>Devise step by step plans which can be read / followed by</li> <li>someone else.</li> <li>Use exploded diagrams and cross-sectional diagrams to</li> <li>communicate ideas.</li> <li>Sketch and model alternative ideas.</li> <li>Decide which design idea to develop.</li> </ul>	<ul> <li>List tools needed before starting the activity.</li> <li>Plan the sequence of work e.g. using a storyboard.</li> <li>Record ideas using annotated diagrams.</li> <li>Use models, kits and drawings to help formulate design ideas.</li> <li>Combine modelling and drawing to refine ideas.</li> <li>Devise step by step plans which can be read / followed by</li> <li>someone else.</li> <li>Use exploded diagrams and cross-sectional diagrams to</li> <li>communicate ideas.</li> <li>Sketch and model alternative ideas.</li> <li>Decide which design idea to develop.</li> </ul>	
<u>Make</u>	<u>Make</u>	
<ul> <li>Make prototypes.</li> <li>Develop one idea in depth.</li> <li>Use researched information to inform decisions.</li> <li>Produce detailed lists of ingredients / components / materials and tools.</li> <li>Use a computer to model ideas. § Select from and use a wide range of tools.</li> <li>Cut accurately and safely to a marked line.</li> <li>Select from and use a wide range of materials.</li> <li>Use appropriate finishing techniques for the project.</li> <li>Refine their product - review and rework/improve.</li> <li>Evaluate</li> <li>Research and evaluate existing products (including book and web based research).</li> <li>Consider user and purpose.</li> <li>Identify the strengths and weaknesses of their design ideas.</li> <li>Give a report using correct technical vocabulary.</li> <li>Consider and explain how the finished product could be improved related to design criteria.</li> </ul>	<ul> <li>Make prototypes.</li> <li>Develop one idea in depth.</li> <li>Use researched information to inform decisions.</li> <li>Produce detailed lists of ingredients / components / materials and tools.</li> <li>Use a computer to model ideas. § Select from and use a wide range of tools.</li> <li>Cut accurately and safely to a marked line.</li> <li>Select from and use a wide range of materials.</li> <li>Use appropriate finishing techniques for the project.</li> <li>Refine their product - review and rework/improve.</li> </ul> Evaluate <ul> <li>Research and evaluate existing products (including book and web based research).</li> <li>Consider user and purpose.</li> <li>Identify the strengths and weaknesses of their design ideas.</li> <li>Give a report using correct technical vocabulary.</li> <li>Consider and explain how the finished product could be improved related to design criteria.</li> </ul>	
Discuss how well the finished product meets the design criteria of the user. Test on the user!    Understand how to a popular base influenced design.	Discuss how well the finished product meets the design criteria of the user. Test on the user!    Industry	
<ul> <li>Understand how key people have influenced design.</li> <li>Autumn term         Mechanical systems         Colette Fu         Pop up books</li></ul>	<ul> <li>Understand how key people have influenced design.</li> <li>Autumn term         <ul> <li>Textiles</li> <li>Create 3D products using patterns pieces and seam allowance.</li> </ul> </li> <li>Understand pattern layout.</li> <li>Decorate textiles appropriately (often before joining components).</li> <li>Pin and tack fabric pieces together.</li> <li>Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision).</li> <li>Combine fabrics to create more useful properties.</li> <li>Make quality products.</li> </ul>	

Spring Term	Prepare food products taking into account the	Spring Term	Prepare food products taking into account the
<u>Food</u>	properties of ingredients and sensory characteristics.	Food	properties of ingredients and sensory characteristics.
Nigel Howarth	Weigh and measure using scales.	Jamie Oliver	Weigh and measure using scales.
Lancashire hotpots	Select and prepare foods for a particular purpose.	Burritos	Select and prepare foods for a particular purpose.
	Work safely and hygienically.		Work safely and hygienically.
	Show awareness of a healthy diet (using the eatwell		Show awareness of a healthy diet (using the eatwell
	plate).		plate).
	Use a range of cooking techniques.		Use a range of cooking techniques.
	Know where and how ingredients are grown and		Know where and how ingredients are grown and
	processed.		processed.
	Consider influence of chefs e.g. Jamie Oliver and school		Consider influence of chefs e.g. Jamie Oliver and school
	meals, Hugh Fearnley-Whittingstall and sustainable		meals, Hugh Fearnley-Whittingstall and sustainable
	fishing etc.		fishing etc.
	, ishing ore.		7.5.m.g 5.6.
Summer Term	Use the correct terminology for tools materials and	Summer Term	Develop a technical vocabulary appropriate to the
<u>Structures</u>	processes.	Mechanical and Electrical Systems and ICT	project.
Ralph Modjeski	<ul> <li>Join materials using appropriate methods.</li> </ul>	Caroline Haslett	Use electrical systems such as motors.
Bridges	Build frameworks to support mechanisms.	Lighthouse	Program, monitor and control using ICT.
bi lages	Stiffen and reinforce complex structures.	Lighthouse	Trogram, monitor and control asing 101.
	• Stiffen and reinforce complex structures.		