Cycle A Design Technology Year 5/6

	Topic	Curriculum Links	Aims/Activity	National Curriculum Skills	Pupil Knowledge	Vocab
Autumn	Food Glorious Food	Geography Science	Children will explore a range of foods from different countries and cultures. Children then design and make a food that could be eaten at a given celebration.	▪ Research and evaluate existing products (including book and web based research). ▪ Consider user and purpose. ▪ Identify the strengths and weaknesses of their design ideas. ▪ Consider and explain how the finished product could be improved related to design criteria. ▪ Discuss how well the finished product meets the design criteria of the user. Test on the user. ▪ Give a report using correct technical vocabulary. ▪ Understand how key people have influenced design. ▪ Prepare food products taking into account the properties of ingredients and sensory characteristics. ▪ Weigh and measure using scales.	▪ I can use existing products to make my own. ▪ I can carry out my own research. ▪ I can carry out a taste test and justify my decisions. ▪ I can use technical vocabulary. ▪ I can choose my ingredients and give reasons for my choice. ▪ I can writ e my own recipe. ▪ I can weigh and measure accurately. ▪ I can choose a cooking method and carry it out.	▪ Taste ▪ Spice ▪ Heat ▪ Seasoning ▪ Boil ▪ Fry ▪ Saute ▪ Combine ▪ Weigh ▪ Measure ▪ Safe ▪ Hygiene ▪ Appearance ▪ Test ▪ Trial

				▪ Select and prepare foods for a particular purpose. ▪ Work safely and hygienically. ▪ Use a range of cooking techniques. ▪ Know where and how ingredients are grown and processed. ▪ Record ideas using annotated diagrams. ▪ Use models, kits and drawings to help formulate design ideas. ▪ Sketch and model alternative ideas. ▪ Use researched information to inform decisions. ▪ List tools needed before starting the activity. ▪ Plan the sequence of work e.g. using a storyboard. ▪ Devise step by step plans which can be read/followed by someone else. ▪ Decide which design idea to develop. ▪ Make prototypes. ▪ Develop one idea in depth. ▪ Produce detailed lists of ingredients / components / materials and tools. ▪ Select from and use a wide range of tools. ▪ Select from and use a wide range of ingredients.		

				▪ Use appropriate finishing techniques for the project. ▪ Refine their product – review and rework/improve.		
Spring	Amazon Adventure	Science Art and Design Geography Computing	Children will design and make a waistcoat or a utility belt that would be useful to an Amazon Explorer.	▪ Research and evaluate existing products (including book and web based research). ▪ Consider user and purpose. ▪ Understand how key people have influenced design. ▪ Identify the strengths and weaknesses of their design ideas. ▪ Use the correct vocabulary appropriate to the project. ▪ Create 3-D products using patterns pieces and seam allowance. ▪ Understand pattern layout. ▪ Decorate textiles appropriately (often before joining components). ▪ Pin and tack fabric pieces together. ▪ Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). ▪ Combine fabrics to create more useful properties. ▪ Make quality products.	▪ I can research and evaluate existing products. ▪ I know that a utility piece of clothing has a specific purpose. ▪ I can manipulate textiles. ▪ I can sew in order to make a strong join. ▪ I can show my design in a variety of ways. ▪ I can cut accurately. ▪ I can measure accurately. ▪ I can make my own templates.	▪ Explore ▪ Evaluate ▪ Pin tack ▪ Cut ▪ Sew ▪ Decorate ▪ Back stitch ▪ Blanket stitch ▪ Combine ▪ Cross-section ▪ Prototype

				▪ Plan the sequence of work e.g. using a storyboard. ▪ Record ideas using annotated diagrams. ▪ Combine modelling and drawing to refine ideas. ▪ Devise step by step plans which can be read / followed by someone else. ▪ Use exploded diagrams and cross-sectional diagrams to communicate ideas. ▪ Sketch and model alternative ideas. ▪ Decide which design idea to develop. ▪ Use a computer to model ideas. ▪ Make prototypes. ▪ Develop one idea in depth. ▪ Use researched information to inform decisions. ▪ Cut accurately and safely to a marked line. ▪ Select from and use a wide range of materials. ▪ Use appropriate finishing techniques for the project. ▪ Refine their product – review and rework/improve. ▪ Give a report using correct technical vocabulary. ▪ Consider and explain how the finished product		

				could be improved related to design criteria. ▪ Discuss how well the finished product meets the design criteria of the user. Test on the user.		
Summer	Inventors/ Inventions	Science History Computing	Children will design and make an 'invention' that uses gears/ cams/ electric motor or a combination of the above.	▪ Research and evaluate existing products (including book and web based research). ▪ Consider user and purpose. ▪ Identify the strengths and weaknesses of their design ideas. ▪ Develop a technical vocabulary appropriate to the project. ▪ Use mechanical systems such as cams, pulleys and gears. ▪ Use electrical systems such as motors ▪ List tools needed before starting the activity. ▪ Record ideas using annotated diagrams. ▪ Use models, kits and drawings to help formulate design ideas. ▪ Devise step by step plans which can be read / followed by someone else. ▪ Use exploded diagrams to communicate ideas. ▪ Sketch and model alternative ideas. ▪ Make prototypes.	▪ I can investigate a range of products. ▪ I can make a basic structure. ▪ I know how to and can strengthen a frame. ▪ I can use a template. ▪ I know that a cam is a rotating, sliding part in a mechanism. ▪ I know that a lever can move a force using a pivot. ▪ I know that gears are toothed wheels that transmit force and motion. ▪ I can explain my design.	▪ Investigate ▪ Product ▪ Template ▪ Cam ▪ Lever ▪ Pulley ▪ Motor ▪ Electrical circuit ▪ Prototype ▪ Force

				▪ Develop one idea in depth. ▪ Use researched information to inform decisions. ▪ Produce detailed lists of components and tools. ▪ Select from and use a wide range of tools. ▪ Cut accurately and safely to a marked line. ▪ Use appropriate finishing techniques for the project. ▪ Refine their product – review and rework/improve. ▪ Give a report using correct technical vocabulary. ▪ Understand how key people have influenced design. ▪ Consider and explain how the finished product could be improved related to design criteria. ▪ Discuss how well the finished product meets the design criteria of the user. Test on the user.		