



Textiles (Fastenings) Book Cover

Year Year 3 / 4

Term Autumn 2

Subject Design Technology

National Curriculum Coverage	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work		
Key Skills		Key Knowledge	
Designing and making a template from an book sleeve and applying individual design criteria. Following design criteria to create a book sleeve. Selecting and cutting fabrics with ease using fabric scissors. Threading needles with greater independence. Tying knots with greater independence. Sewing cross stitch to join fabric. Decorating fabric using appliqué. Completing design ideas with stuffing and sewing the edges. Evaluating an end product and thinking of other ways in which to create similar items. Year 4 Writing design criteria for a product, articulating decisions made. Designing a personalised book sleeve. Making and testing a paper template with accuracy and in keeping with the design criteria. Measuring, marking and cutting fabric using a paper template. Selecting a stitch style to join fabric. Sewing neatly using small regular stitches. Incorporating a fastening to a design. Testing and evaluating an end product against the original design criteria.		What is a fastening? Why are there different types of fastenings? What is a mock up? What is the purpose of a fastening?	
Previous knowledge	Current Year		Future learning
Year 1 /2 - Join fabrics together using pins, staples or glue. - Design a puppet and use a template.	- Identify the features, benefits and disadvantages of a range of fastening types. - Write design criteria and design a sleeve that satisfies the criteria. - Make a template for their book sleeve.		Year 5/6 Design a stuffed toy, considering the main component shapes of their toy.



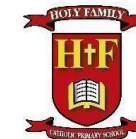
- Join their two puppets' faces together as one. - Decorate a puppet to match their design	Assemble their case using any stitch they are comfortable with	- Create an appropriate template for their stuffed toy. - Join two pieces of fabric using a blanket stitch. - Neatly cut out their fabric. - Use appliqué or decorative stitching to decorate the front of their stuffed toy. - Use blanket stitch to assemble their stuffed toy, repairing when needed. - Identify what worked well and areas for improvement.
Vocabulary: Aesthetic, Assemble, Fastening, Mock-up, Net, Running Stitch, Book Sleeve		

How can you make a sign stand out and catch attention? - Electrical Torches

Year 3/4 Term Spring 2 Subject DT	
National Curriculum Coverage	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
Key Skills	Key Knowledge
Carrying out research. Label and explain the parts of a torch. Carefully begin to think about what might change on the product if components are altered. Fitting an electrical component. Learning ways to give the final product a higher quality finish. Testing their product and giving feedback to others and themselves. Ensuring that the design specification has been achieved.	What is an electrical conductor? What are electrical insulators? What do batteries contain? What is needed for electricity to flow through a circuit?



Year 4 Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. Making a torch with a working electrical circuit and switch. Using appropriate equipment to cut and attach materials. Assembling a torch according to the design and success criteria. Evaluating electrical products. Testing and evaluating the success of a final product.		What is a switch and what can it be used for?	
Previous knowledge		Current Year	Future learning
1 / 2 Science- Materials		- Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. - Making a torch with a working electrical circuit and switch. - Using appropriate equipment to cut and attach materials. - Assembling a torch according to the design and success criteria. - Evaluating electrical products.	5 /6 - Designing a steady hand game, identifying and naming the components required. - Drawing a design from three different perspectives. - Generating ideas through sketching and discussion. - Modelling ideas through prototypes. - Understanding the purpose of products (toys), including what is meant by 'fit for purpose' and 'form over function'. - Constructing a stable base for a game. - Accurately cutting, folding and assembling a net. - Decorating the base of the game to a high-quality finish. - Making and testing a circuit. - Incorporating a circuit into a base. - Testing their own and others' finished games, identifying what went well and making suggestions for improvement. - Gathering images and information about existing children's toys. - Analysing a selection of existing children's toys
Vocabulary: Battery, Bulb, Buzzer, Conductor, Circuit, Electricity, Insulator, Switch			



How can I make a structure strong?

Year 3 / 4

Term Summer 2

Subject DT

National Curriculum Coverage	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups		
	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design		
	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately		
	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics		
	Investigate and analyse a range of existing products		
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work		
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Key Skills		Key Knowledge	
Year 3		What is a frame structure?	
Designing a pavilion with key features to appeal to a specific person/purpose.		What is a free standing structure?	
Drawing and labelling a pavilion design using 2D shapes.		What is a pavilion?	
Experimenting with free-standing frame structures.		What is cladding used for?	
Creating special features for individual designs.		Can you explain what the term aesthetic means?	
Exploring with different materials to reinforce corners.			
Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.			
Suggesting points for modification of the individual designs.			
Year 4			
Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect.			
Building frame structures designed to support weight.			
Creating a range of different shaped frame structures.			
Making a variety of free-standing frame structures of different shapes and sizes.			
Selecting appropriate materials to build a strong structure and for the cladding.			
Reinforcing corners to strengthen a structure.			
Creating a design in accordance with a plan.			
Learning to create different textural effects with materials.			
Previous knowledge		Current Year	Future learning



R/1 • Learn how to select appropriate materials for a purpose • Test and investigate which materials will float or sink. • Understand how different shapes affect the way an object will move. • Sketch and design a boat for purpose. • Testing their end product in water and reflecting on what could have been improved on the design.	• Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. • Building frame structures designed to support weight. • Creating a range of different shaped frame structures. • Making a variety of free-standing frame structures of different shapes and sizes. • Selecting appropriate materials to build a strong structure and for the cladding. • Reinforcing corners to strengthen a structure. • Creating a design in accordance with a plan. • Learning to create different textural effects with materials.	5 /6 • Designing a playground featuring a variety of different structures, giving consideration to how the structures will be used. • Considering effective and ineffective designs. • Building a range of play apparatus structures drawing upon new and prior knowledge of structures. • Measuring, marking and cutting wood to create a range of structures. • Using a range of materials to reinforce and add decoration to structures. • Improving a design plan based on peer evaluation. • Testing and adapting a design to improve it as it is developed. • Identifying what makes a successful structure
Vocabulary: Aesthetic, Cladding, Pavilion, Reinforce, Structure, Stable		