KS1 DT	Cycle A- Year 1/2 -	Cycle A- Year 1/2 - Summer - Structures - Playground equipment	
Design	Make	Evaluate	
 Use pictures and words to convey what they want to design/make. Propose more than one idea for their product. Use kits/reclaimed materials to develop more than one idea. Model ideas with kits, reclaimed materials. Select appropriate technique explaining: First Next Last Explore ideas by rearranging materials. Select pictures to help develop ideas. Use drawings to record ideas as they are developed. Add notes to drawings to help explanations. Describe their models and drawings of ideas and intentions. 	 Discuss their work as it progresses. Select materials from a limited range that will meet the design criteria. Select and name the tools needed to work the materials. Explain what they are making. Explain which materials they are using and why. Name the tools they are using. Describe what they need to do next. 	 Explore existing products and investigate how they have been made. 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 user. 	
Key Learning	Vocabulary	Inventor- Isambard Kingdom Brunel	
Explore how to make structures stronger	• planning,		

- Investigate different techniques fir stiffening a variety of materials
- Test different methods of enabling structures to remain stable
- Join appropriately for different materials and situations e.g glue, tape
- Mark out materials to be cut using a template
- Use a glue gun with close supervision.

- investigating
- design, evaluate, make,
- user, purpose,
- ideas, product,
- cut, fold, join, fix
- structure, wall, tower, framework,
- weak, strong,
- base, top, underneath, side, edge,
- surface,
- thinner, thicker,
- corner, point, straight, curved,
- metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder



Isambard Kingdom Brunel was a famous civil and mechanical engineer known for his innovative and ambitious projects, like bridges.

National Curriculum links:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others

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Design	Make	Evaluate	Technical knowledge	
 Design purposeful, functional, appealing products for themselves and other users based on design criteria Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	 select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics 	 Explore and evaluate a range of existing products Evaluate their ideas and products against design criteria 	Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	