Year: 1/2 **Subject:** Design and Technology **PoS: Structures**	**Topic Title: Brilliant builders**	**Term -** Autumn 2 **Curriculum -** B

Prior Knowledge
All children should have experience of using construction kits to build walls, towers and frameworks. Experience of using of basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card. Experience of different methods of joining card and paper.
Children will have looked at the design process within other units of D.T. They have looked at designing, making and then evaluating their creations and the children will have a good understanding of exploring a variety of designs and options.

Key Vocabulary
Unit specific- cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker.

D.T specific- design, make, evaluate, user, purpose, ideas, design criteria, product, function

Outcome
Designing, making and evaluating a strong chair for Baby Bear

Future Learning
In year 3- children move on to looking at structures in more detail. They move on to looking at shell structures and creating their own packaging. They will look at paper folding and how to make a structure more stable, secure and how to design a product. They will look at the design process of designing, making and evaluating their product as well as making more careful improvements to their designs.

Stimulus
Look at a famous architect/ builder.
First hand experiences (enrichment)
Building the different parts.

World of Work
Structural engineer, architect

National Curriculum PoS

Design
- 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

Make
- 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

Evaluate
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

Technical knowledge
- 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.

Key Knowledge	Possible evidence
Designing • Generate ideas based on simple design criteria and their own experiences, explaining what they could make. • Develop, model and communicate their ideas through talking, mock-ups and drawings. Evaluating • Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. • Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. Technical knowledge and understanding • Know how to make freestanding structures stronger, stiffer and more stable. • Know and use technical vocabulary relevant to the project.	• Go on a walk and/or look at photographs of the local area to explore structures such as playground equipment, street furniture, walls, towers and bridges e.g. What are the structures called and what is their purpose? Who might use them? What materials have been used? Why have these been chosen? How have the parts been joined together? How have the structures been made strong enough? How have they been made stable? • Where possible, ask the children to draw or photograph the structures they have been exploring and label with the correct technical vocabulary in relation to the structure, materials used and shapes e.g. wall, tower, framework, base, joint, metal, wood, plastic, brick, triangle, square, rectangle, cuboid, cube. • Ask children to evaluate their developing ideas and final products against original design criteria.
Application of Key Skills	**Possible evidence**
Making • Plan by suggesting what to do next. • Select and use tools, skills and techniques, explaining their choices. • Select new and reclaimed materials and construction kits to build their structures. • Use simple finishing techniques suitable for the structure they are creating.	• Demonstrate measuring, marking out, cutting, shaping, joining and finishing techniques with a range of tools and new and reclaimed materials that children are likely to use to make their structures. • Ask the children to build and explore a variety of freestanding structures using construction kits, such as wooden blocks, interconnecting plastic bricks and those that make frameworks e.g. How can you stop your structures from falling over? How they can be made stronger and stiffer in order to carry a load? Children could make models of the structures they have seen in school and the local area. • Ask children to fold paper or card in different ways to make freestanding structures, using masking tape where necessary to make joins. Encourage them to think about how folding materials can make them stronger, stiffer, stand up and be more stable e.g. Can they support an object on top of their structures without it falling over or breaking? • Children could make their final products from construction kits, new and reclaimed materials or any combination of these, according to their characteristics.

Year: 1/2 Subject: Design and Technology PoS: Textiles	Topic Title: No Strings Attached	Term - Spring 2 Curriculum - B

Prior Knowledge	Key Vocabulary	Outcome
• Explored and used different fabrics • Cut and joined fabrics with simple techniques. • Thought about the user and purpose of products.	needle, thread, pin, pattern, template, pattern pieces, mark out, join, decorate, finish, features, suitable, quality mock-up, design brief, user, purpose	Designing, making and evaluating making puppets using different fabric joining techniques.
Future Learning • Know how to strengthen, stiffen and reinforce existing fabrics. • Understand how to securely join two pieces of fabric together. • Understand the need for patterns and seam allowances.	**Stimulus** Watch a video of a puppet show **First hand experiences (enrichment)** Make own puppet theatre	**World of Work**

National Curriculum PoS

Designing

- Design a functional and appealing product for a chosen user and purpose based on simple design criteria.
- Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology.

Making

- Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing.
- Select from and use textiles according to their characteristics.

Evaluating

- Explore and evaluate a range of existing textile products relevant to the project being undertaken.
- Evaluate their ideas throughout and their final products against original design criteria.

Technical knowledge and understanding

- Understand how simple 3-D textile products are made, using a template to create two identical shapes.
- Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.
- Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.
- Know and use technical vocabulary relevant to the project.

Key Knowledge Possible evidence	Possible evidence
• Select suitable fabrics for the purpose of their product. • Use a template or simple paper pattern. • Use chalk to mark out or pin or tape paper pattern pieces to fabric and cut out of the fabric. • Use running stitch including threading own needle, stapling, lacing and gluing. Know the advantages and disadvantages of each technique. • Practise finishing techniques including sewing on buttons, using 3-D paint and gluing sequins.	• Children choose a fabric that is easy to sew, is flexible, colourful and does not fray. • Practise cutting and pinning or taping paper pattern pieces using templates or their own design. Cut out the fabric pieces they want to use. • Choose appropriate joining techniques for their puppet that are safe, attractive, flexible and strong ie. Stitching. • Choose a decorating technique to finish their puppet and apply effectively.
Application of Key Skills **Possible evidence**	**Possible evidence**
• Evaluate existing products and use information gathered to inform their own design choice. • Design a suitable product for the specified user, making choices about fabric, joining and decorating • Make their product, carrying out their design intention and adapting where necessary, solving problems as they occur. • Children are able to talk about the products they have seen and make simple comparisons with the existing products and their own ideas. They might say "I want mine to have … like that one." • Their design choices include information about joining techniques and they are able to talk about the choices they have made. "Staples are quick but they would be scratchy on your hands and don't look nice so …" • Children follow their design but are able to see where things aren't working and make changes. " That would be too small so I have made it bigger in my real thing."	• Children are able to talk about the products they have seen and make simple comparisons with the existing products and their own ideas. They might say "I want mine to have … like that one." • Their design choices include information about joining techniques and they are able to talk about the choices they have made. "Staples are quick but they would be scratchy on your hands and don't look nice so …" • Children follow their design but are able to see where things aren't working and make changes. "That would be too small so I have made it bigger in my real thing."

Year: Subject: PoS:	Topic Question/Title:	Term - Curriculum -

Prior Knowledge	Key Vocabulary	Outcome
Future Learning	Stimulus First hand experiences (enrichment)	World of Work

National Curriculum PoS Concepts (if needed)	Key Knowledge	Possible evidence
	Application of Key Skills	Possible evidence
	Subject Specific or not applicable – change as needed or delete	Possible evidence