



Knowledge Organiser	Subject: Design and Technology	Topic: Stable Structures	Year: 2
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<u>Key Knowledge</u> <u>Technical knowledge I have already learnt about</u> <u>Stable Structures</u>	<u>Key Learning</u>	<u>Disciplinary Skills</u>
What are Structures? A structure is something that has been built to stand up and support things. A house has walls, a roof, and a floor. All these parts together make a strong structure that keeps you safe and warm. Examples of Structures Buildings: Your school, homes, and shops are all buildings that are structures. Bridges: Bridges help us cross rivers or roads, and they are designed to be strong enough to hold cars and people. Furniture: Tables and chairs are structures that hold us up when we sit down to eat.	What are Stable Structures? A stable structure is something that is built in a way that makes it strong and safe. Think about a tower made of blocks. If we build the tower too high without a strong base, it might fall over. But if we make the bottom wide and add more blocks carefully, the tower will stand better. Why is Stability Important? Stability is very important because it keeps us safe. When buildings or bridges are stable, they can hold weight and stand up against things like wind or rain. Parts of a Stable Structure Every stable structure has different parts that help it stay strong: Base: The bottom part that touches the ground. A wide base makes it more stable. Materials: Structures can be made of different materials like wood, metal, or bricks. Some are stronger than others. Shape: The shape of a structure makes it stable. For example, a triangle shape is very strong! Examples of Stable Structures Bridges: They are built to hold cars and people. A stable bridge has strong supports and a flat surface. Towers: Such as the tower of Big Ben, which is very tall and has a wide base. Houses: They have a stable structure to keep families safe inside. https://www.youtube.com/watch?v=VV375irtRgY	• Generate ideas through brainstorming and identify a purpose for their product. • Draw up a specification for their design. • Select appropriate materials, tools and techniques. • Use skills in using different tools and equipment safely and accurately. • Evaluate a product against the original design specification.
Key Concepts		
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.

Key Vocabulary	
Stable objects	A stable object or structure is one that isn't likely to fall over.
Structure	The arrangement of and relations between the parts or elements of something complex.
Materials	The matter from which a thing is or can be made e.g. wood, plastic paper.
Foundation	The lowest load-bearing part of a building, typically below ground level
Building	A structure with a roof and walls, such as a house or factory.
Modify	To change something in order to improve or fix it.
Join	A place or line where two or more things are connected or fastened together.
Construct	Build or make (something, typically a building, road, or machine).



Linking Thinking Across Our Learning Journey						
Early Years	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Once upon a time- Building structures	Playgrounds – Structures	Stable Structures - Structures	ROH Stage design – Structures	Pop up books	Bridges- Structures	African instruments/ Fairgrounds- Constructing