

Our Lady and St Edward's Knowledge Organiser	Year 2 - Design and technology	Summer	Engineering: Towers and Steeples
---	---------------------------------------	---------------	---

Outcome: To compare the designs of towers and steeples and investigate the strength of the structures, materials used and the purpose of towers and steeples on different buildings. The pupils will then construct and build their own church models, choosing appropriate materials for building and joining pieces together.

Towers and Steeples	Key Vocabulary
----------------------------	-----------------------

A tower is any structure that is relatively tall in proportion to the dimensions of its base. It may be either freestanding or attached to a building or wall.

A steeple is the tower at the top of a church, which is a building or temple of the Christian religion. It often has a cross at the top, in memory of Jesus' crucifixion.

A steeple is a tall tower on a building, topped by a spire and often incorporating a belfry and other components.



Frame: A basic structure that underlies or supports a structure.

Spire: Steeply pointed usually with a pyramid base.

Vertical: Vertical line: A line that runs up and down the page.

Horizontal: A horizontal line is a line that runs right and left across the page.

Roof: The structure forming the upper covering of a building or vehicle.

Base: The lowest part or edge of something, especially the part on, which it rests or is supported.

Diameter: A transverse (extending across) measurement of something; width or thickness.

Strengthen: Make or become stronger.

Stiffen: Make or become stiff or rigid.

Reinforce: Strengthen or support (an object or substance), especially with additional material.

Joining: Link; connect.

Structure: A building or other object constructed from several parts.

Evaluate: Decide if your recipe design meets its purpose.

Prepare: To make (something) ready for use or consideration.

Purpose: The reason for which something is done or created

Key Knowledge	Health and Safety
----------------------	--------------------------

To explore how to make a freestanding structure stronger, stiffer and more stable.

To understand and use technical vocabulary relevant to the project.

To use knowledge of structures to design and build a tower or steeple

To safely use basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card.

To decide between different methods of joining card and paper.

To evaluate their structure and decide how they improve it in the future.

All children should be supervised when using equipment. Pupils should be taught to work safely when using sharp tools and equipment, such as scissors, knives and solvents.

What I should already know:	By the end of this unit, I will know:
------------------------------------	--

- To use scissors to successfully shape and score different materials.
- To use ideas from existing products to design and create my own.

- How to recognize the best materials for building taller structures.
- To evaluate my work and make simple improvements for next time I make a similar item.

