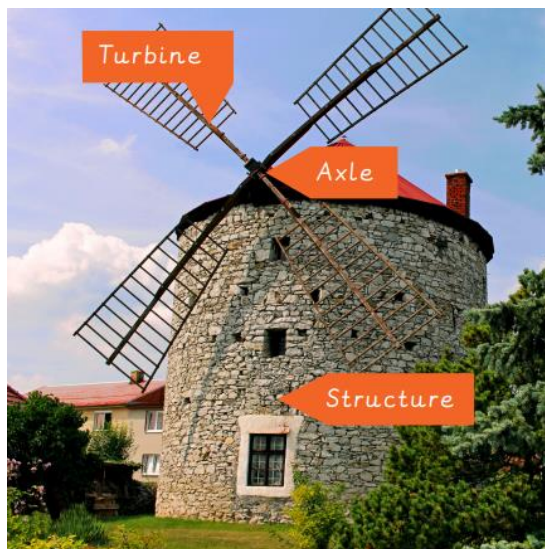


What should I already know?

- To name and safely use a variety of materials and tools.
- To know how to cut, fold and join different materials.
- To know that in Design and technology we call a plan a 'design'.

Key Knowledge

- To understand that the shape of materials can be changed to improve the strength and stiffness of structures.
- To understand that cylinders are a strong type of structure.
- To understand that axles are used in structures and mechanisms to make parts turn in a circle.
- To begin to understand that different structures are used for different purposes.
- To know that a structure is something that has been made and put together.
- The 3 main parts of a windmill are – the structure, the axle, the turbine



Key Vocabulary and definitions

Vocabulary	Definition
Client	The person you are designing something for.
Design	To make, draw or design plans for
Design criteria	A set of rules to help you with your ideas and test the success of them.
Evaluation	When you look at the good and bad points about something, then think about how you could make it even better.
Net	A flat 2D shape, that can be put together to make a 3D shape
Stable	Object does not easily topple over.
Structure	Something that has been made and put together (e.g. a chair, a bridge, a building)
Test	To find out if something has worked as it should.
Windmill	A structure with sails that are moved by wind.
Windmill axle	The point from which the turbine or sails move.
Windmill structure	The part that makes the windmill stand up.
Windmill turbine	The parts that move in the wind (the sails).

Types of windmills.

