

End Points

Year 1 – Windmills



What I know and can explain

- 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 (e.g. the main shape used for windmills and lighthouses).
- 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.
- Learning the importance of a clear design criteria.
- Making stable structures from card, tape and glue .
- Learning how to turn 2D nets into 3D structures.
- Following instructions to cut and assemble the supporting structure of a windmill.
- Making functioning turbines and axles which are assembled into a main supporting structure
- Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't.
- Suggest points for improvements.

Useful vocabulary

client
design
evaluation
net
stable
strong

test
weak
windmill

