



Upperby Primary School - Design and Technology Knowledge Organiser

YEAR 2 - Spring 2 — Construction and Materials - Making a secure, moving windmill



Knowledge — What will I know at the end of the unit?

- To understand what a windmill is and explain some features
- To design a moving windmill, which is secure and supports a turbine
- To use equipment and tools with some precision
- To evaluate the product and say what could be improved next time.

Skills

- Use tools to cut, join and shape materials.
- Select materials, shapes and joins that will strengthen, stiffen and stabilise a structure that moves.

Evaluate

- Can I identify and explain some features that would appeal to the user? (mouse)
- Can I create a suitable design using captions and drawings?
- Can I make a stable structure that can support the turbine?
- Can I explain what makes a strong, secure structure?
- Can I select and use the correct materials with some precision e.g. tape and glue?
- Can I make a functioning turbine and axel that moves?
- Can I evaluate my product against a design criteria and say how my product has or hasn't met it?
- Can I explore existing products and say what I will include in mine?
- Can I use tools and equipment e.g. scissors and joining and with competence and skill?
- Can I say and show how to make my structure more stable?



Vocabulary

Windmill	a building or structure with large blades on the outside that, when turned by the force of the wind creates power
Axle	a bar connected to the centre of a circular object which causes it to turn
Stable	firmly fixed
Turbine	A type of machine in which a wheel is driven by the movement of gas or liquid
Design	A plan or drawing to show what a product will look like.
Evaluate	To judge and discuss the outcome and how something went.
Adapting	Changing your ideas and equipment along the way.
Equipment	The items and objects you need to help you In making your product.

