

Wind Powered Toy Design Competition!

The Design Brief

Design a toy that fulfils the following criteria:

- It is a moving toy
- It is powered by wind – either a sail or a fan type design
- It is designed for children aged between 5 and 7
- It can be used outside

Design Questions to think about

How will it move?

How will wind power make something (wheels, blades, sails) move?

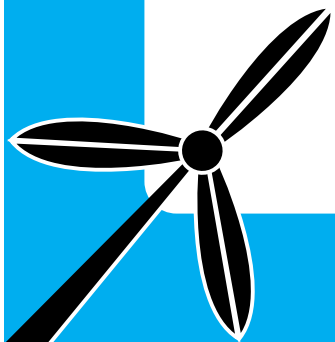
How will the moving pieces be attached to each other?

What materials will it be made from?

What will make your toy fun to play with?

How will you decorate it?

What age child would this be for?



Curriculum Links: Design and Technology

Design

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

- Select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing accurately.

Evaluate

- Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

Technical Knowledge

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Science

Forces

- Identify the effects of air resistance and friction, that act between moving surfaces.

Background Information

Children

Did you know that wind energy is super important to help save our planet? Take a look at this [BBC website](#) to find out how.

To find out more about how a real life wind turbine works, have a look at [this website](#).

To see a wind powered toy in action see this [You Tube clip](#).

Parents

[This booklet](#) is super useful to help your child find out more about wind power.

Design Research

You will need to carry out some **research** before you can design your own toy. Look at these pictures below to see what is already available.

Choose one of the wind powered toys to explore, using the **Design Questions** above to help focus your research. Decide which toy you would buy (if you were able to) or make and why?



My Wind Powered Toy Design

Draw and label your own design.



Describe your toy in words (What does it do? How does it move? What is made from?)
