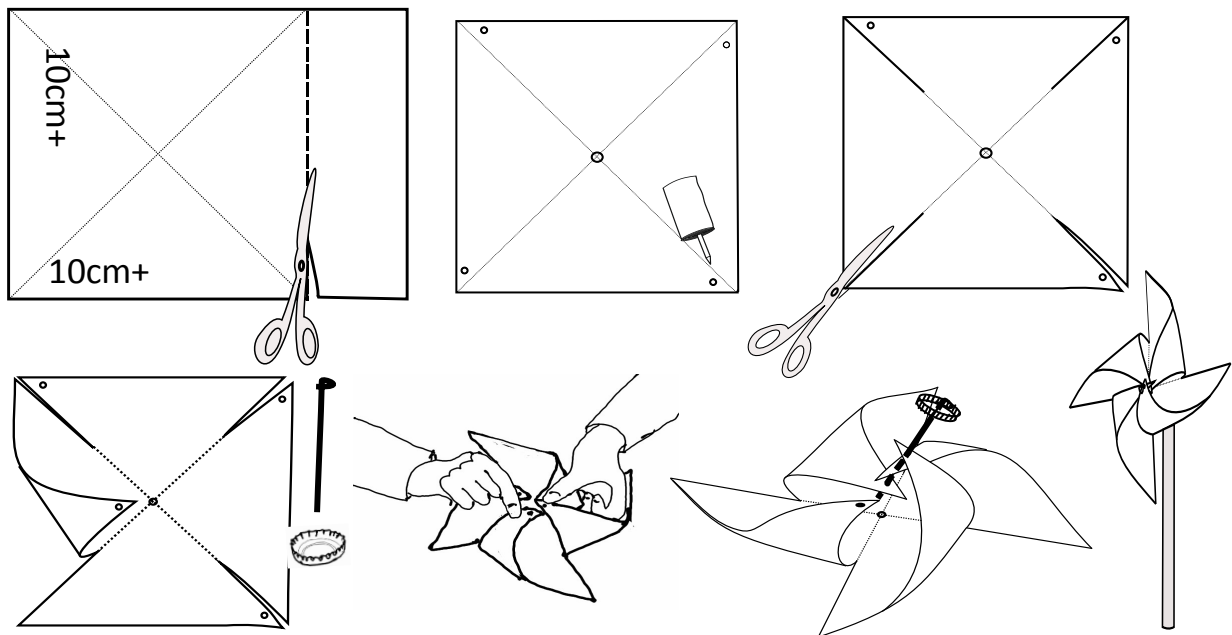


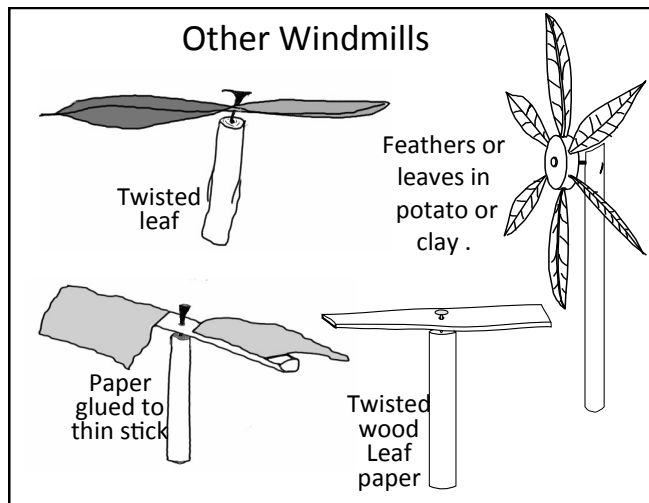
# Windmill



**Materials:** Paper, any stiff sheet material  
If it is waterproof it can stay outside.  
Plastic file covers work very well.  
Wire or nails for the centre. Corks for bearings. The holes need to be punched out and larger than the nail.

A good length of stick allows for free running, a short stick as in the (other windmills) can be used forwards and is easier made.  
A knife can be used instead of scissors.

**What it Does:** Good windmills will turn in very little air, blowing, running or even the wind.



**When it doesnt work:** The material needs to turn freely. Use beads or corks to keep the blades from hitting the stick or the nail head. When the paper is old it loses its shape and ability to catch the wind.

**Developing:** Windmills with more blades will work better, a hexagon makes an 8 bladed windmill using the same principal.

Making very small windmills appeals to children.

Larger windmills can be made to power a crank (bent wire at the back) but will need a bearing of a straw as it goes through the wood.