Classroom Windmill Base Construction

Equipment:

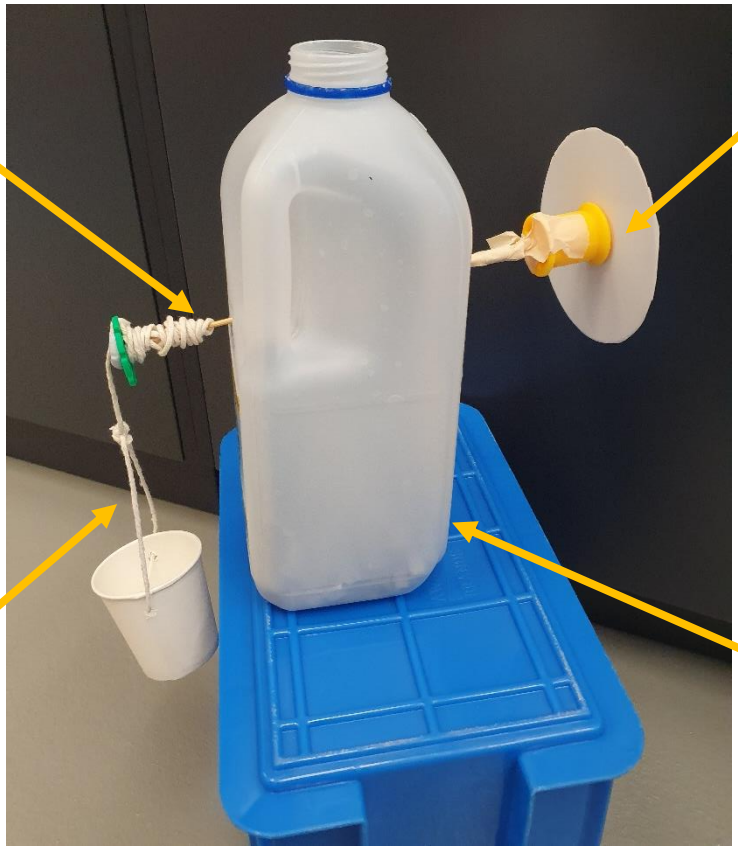
- 6 x 2L Plastic Milk Containers
- Sand, Bolts or other heavy items to sit in the bottom of the containers as weights
- Wooden skewers – strong and robust, could be a wooden chopstick
- Cotton Reel
- String
- Paper Cup
- Cardboard circle
- Tape, Blu-Tack, Glue
- Scissors

Instructions:

Do – Use a skewer to punch a hole through the milk container to allow the mast to pass through the windmill base. Widening the hole slightly with a pair of scissors or a screwdriver can be helpful to ensure that the skewer can easily twist within the space without falling through. Secure the cotton reel on one end of the skewer – using glue and/or tape. Secure the cardboard circle on the other side of the cotton reel. This needs to be a very firm connection to ensure that the skewer mast turns with the motion of the blades.

At the opposite end of the mast, secure a long piece of string to act as a winch rope. Secure a cup to the end of this string. When the skewer mast is twisted, the piece of string should wind up around the mast.

Skewer mast – *sturdy to allow the transfer of motion from the blade hub to the winch.*



Cotton reel firmly glued to a circle of cardboard - *used to attach the student blade assemblies.*

Winch and basket – *String is secured to the mast, optional piece to stop the string rolling off the mast and a cup for a*

Milk Container base – *filled with heavy material to anchor the windmill.*