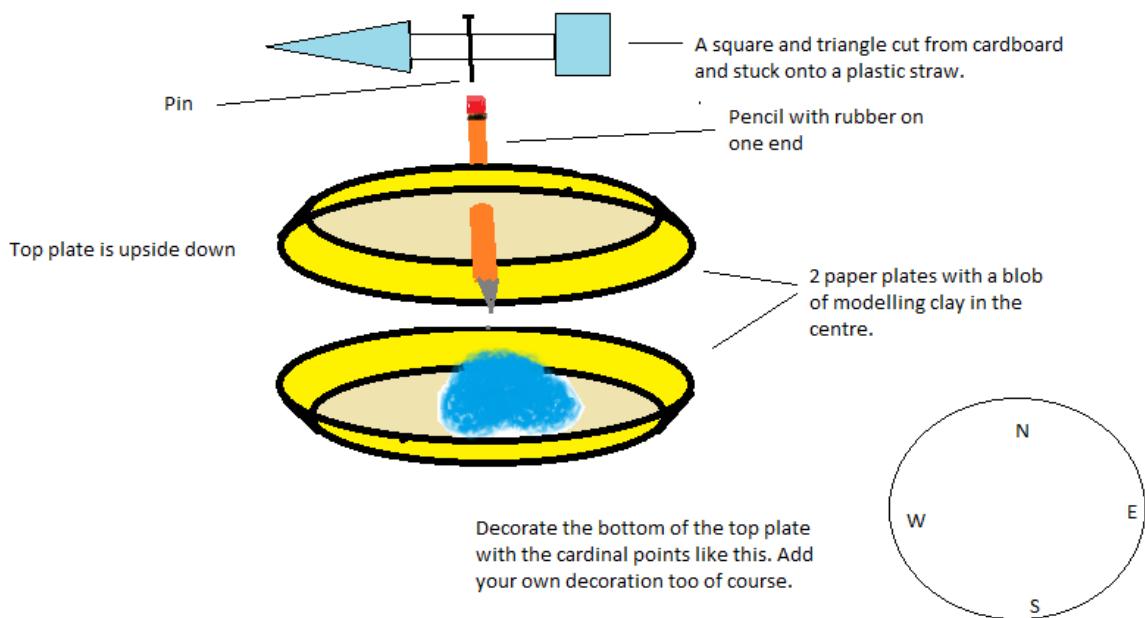


How to make a Weather Vane and an Wind Sock

Background information

Wind turbines are machines that convert the kinetic energy of the wind into electricity. In order to do this efficiently they need to face into the wind. They do this automatically by turning the nacelle (the box) at the top of tower into the wind. Inside the nacelle there is a computer that constantly monitors the wind speed and direction. On the back of the nacelle there is a weather vane and an anemometer which is linked by a cable to the computer.

To make a weather vane



You will need:

One straw (if using bendy straws cut off the bendy bit), sticky tape, card, rubber top pencils, dress makers pins, modelling clay, paper plates, colouring pens or pencils, paper glue.

1. Cut two triangles from a piece of thin card.
2. Slit a straw lengthwise at each end and slide the two triangles into the slits you have made. Use sticky tape to hold in place.
3. Find the middle of the straw and push a dress makers pin through. Wiggle it about a bit so your arrow moves freely on the pin.
4. Push the pin into the rubber top of the pencil.
5. Take a paper plate and mark with the cardinal points – make sure they are in the correct place from North at the top and progressing clockwise they should read east, south and west.
6. Decorate the plate.
7. Place a piece of modelling clay beneath the centre of the plate and make a hole in the middle by pushing through with the point of the pencil.
8. Take a second plate and smear glue around the flat edge.
9. Place your decorated plate on top and hold down until dry.
10. Take your weather vane outside and line it up using a compass.

How to make a wind sock

An Anemometer measures wind speed. A wind sock is a wind gauge. It gives an indication of how fast the wind is blowing and from which direction. They are commonly seen at airports.

Take a piece of card about 45 centimetres long and decorate one side. Turn the card over and stick ribbons of tissue paper to the card. Stick the two short ends together to form a ring and attach 4 pieces of string or wool evenly around the top of the ring of card. Bring the loose ends together and tie a knot. Then tie your knotted string onto a long pea stick and place it in the ground. If the wind is light the wind sock will hardly move as the wind grows stronger it will move up and out showing how strong the wind is and where it is coming from.

