

Weather-watching is suitable for pupils of all ages and may be a one-off project or a daily activity. Rain, wind and sunshine have a constant effect on all aspects of gardening, on how we grow our food and even where and how we live. Global warming and how it may alter our climate is a growing concern. If you have your own school weather station and keep your own records you can track the trends - and maybe forecast the weather too..

CURRICULUM LINKS

Geography

KS1 – 1abcd, 2abcde, 4ab
KS2 – 1abe, 2abefg, 3abcdefg, 4ab, 5ab, 6abcde, 7abc
KS3 – 3abcde, 4ab, 5ab

Art & design

KS1 – 1ab, 2abc, 3ab, 4abc, 5abcd
KS2 – 1abc, 2abc, 3ab, 4abc, 5abcd
KS3 – 1abc, 2abc, 3ab, 4abc, 5abcd

Design & Technology

KS1 – 1abcde, 2abcde, 3ab, 4ab, 5abc
KS2 – 1abcd, 2abcde, 3abc, 4abc, 5abc
KS3 – 1abcde, 2abcde, 3abc, 4bc, 7b

HOW TO SET UP a Mini Weather Station

Cardinal Wiseman RC Secondary School in Coventry monitor local weather conditions with the aid of a compact meteorological station, some of which they lent to the Growing Schools Garden. School suppliers offer a range of meteorological kits. You will also need a Stephenson screen (a louver-sided box) to house some of the instruments, though this can be home made. Some kits have instruments which can be linked to a computer, enabling results to be automatically recorded and printed out. Garden supplies catalogues are also good sources of outdoor weather instruments.

The standard kit would contain a minimum/maximum thermometer; a barometer to measure atmospheric pressure, a hygrometer for measuring humidity, a rain gauge, an anemometer to measure wind speed and a weather vane to show wind direction. The first three would be sheltered by the Stephenson screen to provide shade and still air; the others need to be out in the open.

Position the kit in an open situation, away from walls, trees and other shelter which could affect many of the readings. As well as providing interesting data for further study, weather records can be linked to other activities such as growing plants.

HOW TO MAKE Playground Weather Instruments

The high tech option is not the only way to monitor the weather. You can make your own simple instruments using readily available materials in imaginative shapes, like the large friendly goose windsock and the windmill weathervane made by Windmill First School, Worcestershire, for the Growing Schools Garden.

To make a goose windsock, first mould the body out of chicken wire, including wings and a tail. Cover it with Modroc (strips of textile impregnated with plaster of paris).

Make flat feet out of MDF or wood, wide enough to act as stabilisers, and fix copper piping in them as legs. Secure the body firmly onto the legs.

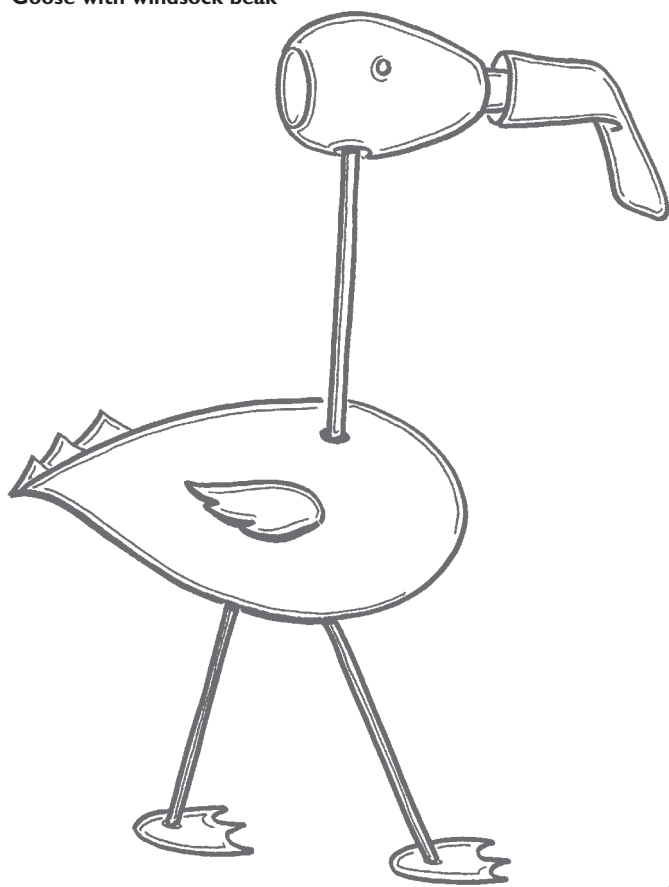
To make the head, use an old plastic football or rugby ball as a mould, and cut a hole in each end. Cover with Modroc, leaving a wide hole open at one end to let the wind enter it. Make a beak out of orange ripstock fabric (used for kites), with a wire ring in both ends. Attach the beak onto the head, and fix the head onto a copper pole as neck, ensuring that it can swivel round freely.

Once the Modroc is dry, paint the whole bird with gloss paint to protect it from the weather.

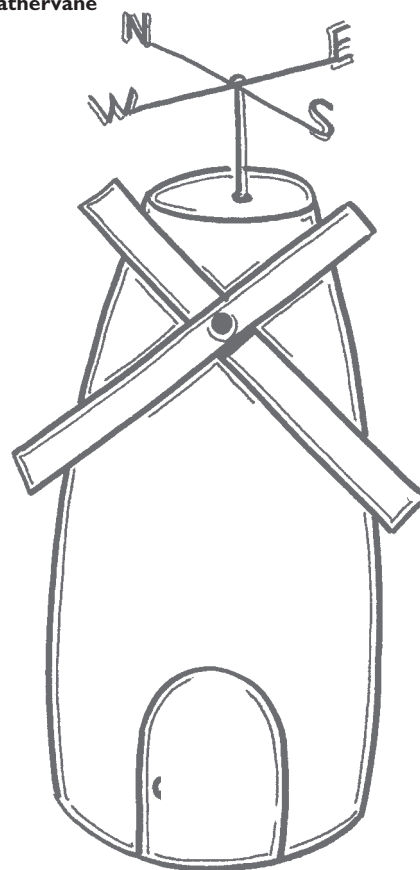
The windmill weather vane is made in a similar way. Make the body out of chicken wire and cover with Modroc. Attach sails made of wood or plastic in the shape of a cross, fixed on a long nail or a short length of metal tube, ensuring they are free to swivel. Add or paint a door onto the house and stick on a miniature door knob. Paint the completed windmill with gloss paint for weather protection.

On the top firmly fix a weather vane - Windmill School bought a metal one, but it could also be home-made from a variety of materials.

Goose with windsock beak



Windmill weathervane



ADDITIONAL INFORMATION

Weather station instruments Available from school suppliers and garden catalogues.

Playground weather instruments Materials available from school suppliers, DIY and plumbers stores.