



June

zoom in on wildflowers



Lady's Smock – Cruciferae family

Background information

The study of wildflowers in June can engage children in working scientifically. The following skills will be utilised: questioning, observing, investigating, estimating and measuring, analysing, recording and communicating. Most important of all, however, they will be working outdoors. Outdoor learning will be remembered long after the textbooks are closed.

Key areas to study

- ✘ Classification
- ✘ Parts of a flower
- ✘ Habitat
- ✘ Distribution
- ✘ Reproduction
- ✘ Value to wildlife
- ✘ Adaptation
- ✘ Preserving specimens
- ✘ Propagation
- ✘ Threats



*Corn marigold
– Compositae family*



Flower press

Active learning

Active learning

In the junior classes use hoops to focus the children's attention on small areas around the school grounds. Compare the plants found in the middle of a grassy field to those found under a hedge or in a wooded area for example.

In the senior classes use quadrats or line transects to record plants in different habitats. A quadrat is a 1 metre square wooden frame for sampling different areas; a line transect is a piece of string or rope 5 metres long with knots every 50 cm. The latter is tied between 2 sticks in the habitat under investigation and the plant closest to the knot is recorded.

Children enjoy collecting flower specimens and their leaves. For this activity you will need: clipboard for each child (old election posters made from corrugated board are ideal; use clothes' pegs to attach the A4 paper to the boards); masking tape or sticky labels to attach specimens (the children tear small strips from the label); pencils; 2 plywood boards 33cmx43 cm, newspapers and 2 belts to press the specimens (place 4 sheets of newspaper on the board and place 2 A4 sheets with specimens on top of them. Place 4 more sheets on top of these. Continue like this until all the specimens are in place. Place another board on top and tie with the 2 belts. Leave in a warm place. Change the

newspaper after 3 days. The specimens should be dry in about a week. Some teachers like to put alternate layers of corrugated cardboard and newspaper between the boards. This method allows air to circulate to prevent the specimens from going mouldy. N.B Only collect common plants.

To make a distribution map mark off an area with string and measure the length and width. Draw a rectangle on an A4 sheet and write in the measurements along the sides. Mark in the trees first. Then mark in where groups of plants can be seen. Use symbols for the plants and trees e.g. circles for the latter. Design a key to explain the symbols.

Activity Pack: Usborne Spotter Cards, 50 *Wild Flowers to Spot* www.usborne.com



*Equipment for
specimen collecting*



Pressing flowers

Classification

Children should be made aware that flowers are divided into families. They could examine the following ones:

1. **Labiatae** – Flowers in this family have square stems and irregular flowers with a lip. Leaves are arranged in pairs. Examples: Red Deadnettle, White Deadnettle, Bugle, Self-Heal, Hedge Woundwort.
2. **Compositae** – Flowers are composite. The heads are made up of tiny flowers or florets. Examples: Daisy, Dandelion, Ragwort, Corn Marigold, Thistle.
3. **Cruciferae** – The 4 petals spread out like a Maltese cross. Examples: Shepherd's Purse, Lady's Smock, Charlock, Hedge Garlic, Watercress.
4. **Umbelliferae** – Flowers grow in stalks from the top of the stem like an umbrella. Examples: Cow Parsley, Hogweed, Pignut, Wild Carrot, Ground Elder.
5. **Leguminosae** – Flowers look like butterflies. They have one large petal called the standard and two side-petals called the wings. Two more petals in the front are covered by the wings and form a

keel. Examples: Gorse, Birdsfoot-trefoil, Red Clover, Common Vetch, White clover.

Parts of a flower

Children should be taught to recognise the carpel, stamens, petals, and sepals. It is a good idea to buy some large plastic lilies to demonstrate the functions of each. Yellow pollen from a stamen must fall on the top part of the carpel before a seed can develop. The stigma is sticky in order to hold on to the pollen. The flower must rely on messengers to bring pollen to another flower. They employ insects to do this. The petals attract the insects. Some have bee guide-lines on them to direct them to the base of the petals where the flower holds the "bribe"-nectar. Pollen brushes onto the insect from the stamen when it is foraging.



Foxglove

Literacy

Stamen: Male part composed of filament and anther.

Carpel: Female part composed of stigma, style and ovary.

Sepal: Outer part of flower. It is usually green.



Lords and Ladies

Useful websites

www.naturedetectives.org.uk
Identification cards and games.

Useful books

- *Go Wild at School* (3rd Ed. 2011) by Paddy Madden. Shows how to make wildflower meadows and which flowers are beneficial for bees, butterflies and hoverflies.
- *The Wild Flowers of Ireland* by Declan Doogue and Carsten Krieger (Gill and Macmillan, Dublin, 2010).
- *The Wildflowers of Offaly* by John Feehan (Offaly County Council, 2009)
- *Wild Things at School* by Eanna Ní Lamhna (Meath County Council, Navan, 2009).



Purple Loosestrife

Strand Units covered this month

Environmental awareness, caring for the environment, plant and animal life, the local natural environment.



PADDY MADDEN lectures on SESE in Coláiste Mhuire, Marino Institute of Education. He is a Heritage in School specialist-see www.into.ie. His latest book, the third reprint of

Go Wild at School is available now for €15 plus €2.50 p&p. To purchase contact paddy.madden@mie.ie. He is also the author of *The School Garden* – What to do and when to do it. This is available from the same email address for €10 plus €2 p&p.



Primroses
– Primrose family