

INVESTIGATING PLANT BIODIVERSITY IN SECONDARY SCHOOLS

Try some of the following simple activities to get started
exploring the habitats and plant species on your school grounds
or in your local community.

YOUR LOCAL ENVIRONMENT INTRODUCTORY ACTIVITIES

Before you go out

- Watch the Green Schools Introduction to Biodiversity [Video](#). Discuss what habitats are nearby and what smaller habitats like hedges, log piles etc are on your school grounds.
- Decide on a route you can walk which may include several large or small habitats. It can be your school grounds, local park, woodland etc. Discuss being observant and focusing on noticing your surroundings when outside.
- Look through the [Cloud Spotting Guide](#) then split into groups and give each a [BBC Cloud spotter sheet](#).

Completing the activities

- Go on a walk around your school grounds or local area and try to take in as much of your surroundings as possible. Note the different habitats you see. Think about how the habitat type and variety may have on the biodiversity in the area.
- Observe the different cloud types and note their characteristics. Use the spotter sheet to help identify them.
- Ask students to spread out in a certain area with some green space and choose a spot alone to sit. Take time to relax and complete this [Sound Mapping Activity](#).

Follow on actions

- Create a [habitat map](#) for your school or add in any new habitats you have noted to an existing one.
- Read this [article](#) on plant blindness and discuss whether we pay attention to plants in our everyday lives.
- Try some of our other activities aimed at observing different species like birds, grassland plants or insects.

You will need

- Cloud Spotter Sheets
- Camera/phone/ipad
- Paper and pencil per student
- Clipboards or books to lean on while completing Sound Mapping

TREE INVESTIGATION ACTIVITIES

Before you go out

- Watch these videos on how trees can [communicate](#) with each other and [fight off threats](#).
- Look up some of Ireland's native trees with LEAF's [information sheet](#) and learn what each looks like on the [Tree Council's website](#). Establish which trees should have produced flowers, fruits or other key characteristics at this time of year.
- Read through some of the Student Support Sheet on Forests and Climate and discuss a couple of the questions posed as a class. Watch this [demonstration video](#) on calculating how much carbon is stored in a tree.

Follow on actions

- Use online sources/books etc to identify any trees you did not know in the field.
- Add any findings of species type, age, height, carbon stored etc to your school habitat map if you have one.
- Do some work to compare CO₂ absorption of trees on your grounds with that used by your class to travel to school/to produce food eaten for lunch that day etc.

Completing the activities

- Split into groups and give each a spotter sheet/id guide and pencil and paper.
- Go on a walk around your school grounds or local area and try to identify as many trees as possible. Photograph or sketch their key characteristics. Note what helped you to identify them.
- Use these [sheets](#) to find some of the oldest/tallest trees.
- Pick out some of the older/larger trees you found and calculate how much carbon these trees have absorbed over their lifetimes using these [resource sheets](#). Record this information.

You will need

- Spotter Sheets. [Flowers](#), [Leaves](#) or [Twigs](#) (expert level!)
- Camera/phone/ipad
- Paper and pencil
- Carbon Calculation Activity [sheet](#) per group.
- Age and Height of a Tree [sheet](#) per group
- Measuring tape/string and ruler.

GRASSLAND PLANTS INVESTIGATION

Before you start

- Look at some pictures of grassland plants online so you are familiar with their features. Use our linked spotter sheets below to get started.
- Identify where you will go. Do you have a playing pitch or grass verges on your school grounds. Discuss how much difference you would expect in plant diversity between areas like playing pitches and wilder areas.
- Divide students into groups and print out spotter sheet on next page or some from our additional links and give one to each group along with a hula hoop/quadrat or 4m of string.

You will need

- Hula Hoop/Quadrat/String
- Spotter sheet below and the [April/May/June](#) Spotter Sheet from LEAF. You can search for all months [here](#).
- Camera/phone/ipad
- Paper and pencil

Completing the activity

- Each group should throw their hula hoop/quadrat so that it lands at random on a patch of grass you are investigating. Or stretch out the length of string along the grass.
- The group should then closely examine everything inside the frame/alongside the string. Count how many different plants you can see inside the frame or touching the string.
- Try to identify, photograph or draw each different plant. Throw again in the same area and notice whether you are finding the same or different plants. Which are the most common.
- Move to a different area and repeat.

Follow on actions

- If there were plants you could not identify outside try
 - [Wildflowers of Ireland](#)
 - or search by colour on [Irish Wildflowers](#)
- Start a project to determine how to increase grassland plant diversity. Compare planting seeds, not mowing etc. in different areas.

GREEN SCHOOLS GRASSLAND SPOTTER SHEET

TICK EVERY TIME YOU SEE ME!



Daisy/Nóinín

☐

Buttercup/Fearbán

☐

Dandelion/Caisearbhán

☐

Forget me not/Lus mionla goirt

☐

Cleavers (sticky back)/Garbhlus

☐

Nettles/Neantóg

☐

Dock Leaves/Duilleog chopóige

☐

Creeping Thistle/Feochadán Reachta

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