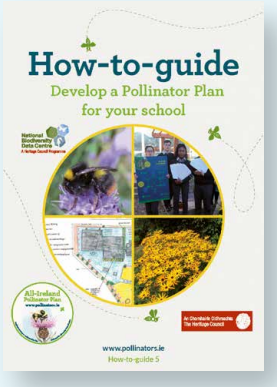
06

Lesson Plan

Map your school yard for bees



Objectives

In this lesson, students will:

- ✓ Learn to see an outdoor area from the perspective of a bee.
- ✓ Learn to classify areas of the school yard in terms of whether they provide food, shelter or safety for pollinators.
- ✓ Learn to create a map showing school building, playing fields, paths and other hard surface features, as well as mapping habitats, such as hedgerows, trees, wildflower areas.

Background:

In Lesson Plan 4, the students learned what wild bees need to survive: food shelter and safety

In this lesson, they will use that knowledge to assess their school grounds

Not all schools will have a school garden, but this activity can also be done in a local park, on a field trip, or in their own gardens.

All-Ireland Pollinator Plan www.pollinators.ie

Ionad Tacaíochta Oideachais Laoise
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Offer the students a reminder of what they learned in Lesson 4:

Food:
Bees feed on flowers, and some flowers offer better food (pollen) than others.

Shelter:
- ✓ Bees need safe nesting sites.
- ✓ **Bumblebees** nest in long grass, often at the base of a hedgerow.
- ✓ **Mining solitary bees** nest in south/east-facing banks of bare earth.
- ✓ **Cavity-nesting solitary bees** nest in existing cavities in wood or stone.

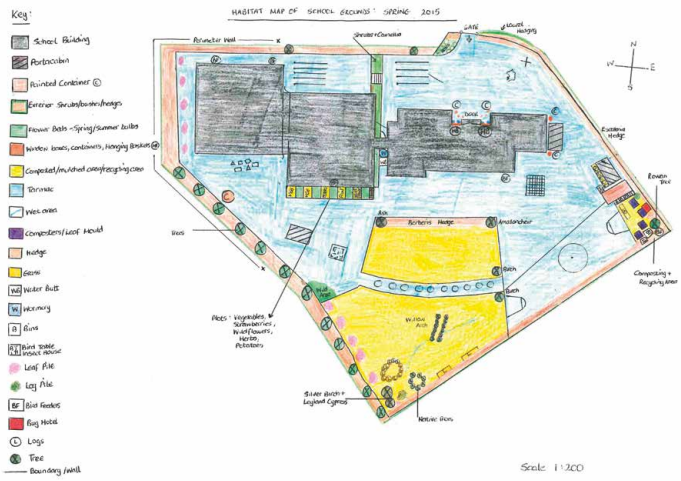
Safety:
Pesticides include herbicides, insecticides and fungicides and can make areas unsafe for bees and reduce their food resources.

Activity:

Design a poster to help to tell people that bees are in trouble and need our help.

Ask the students to form small groups

- ✓ Each group should work together to create a map of the school, showing buildings, playing fields, garden area, hedgerows and any planting areas, e.g. herb beds, planters, window-boxes or hanging baskets.
- ✓ Outdoors, each group can measure the various areas of the school yard or park and make notes to plot their map later in the classroom. Different students can take on different jobs such as measuring, taking photographs or writing notes.
- ✓ Use a colour code and key to identify different areas on your map.



Key questions:

1. Are there areas where wildflowers can grow?
2. Are there pollen-rich flowers?
3. Does your school have native hedgerows?
4. Are there wild corners with bramble or Ivy?
5. Is there shelter? e.g. Long grass for bumblebees, bug hotels, stone walls for cavity-nesting bees

Activity:

Take photographs or make sketches/notes about the parts of your school yard you think are positive or negative for pollinators and add these to your map.

Samples:

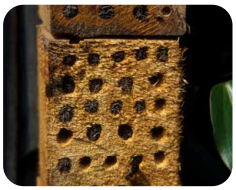
Dandelions.

Flowering native hedgerow - super for bees!

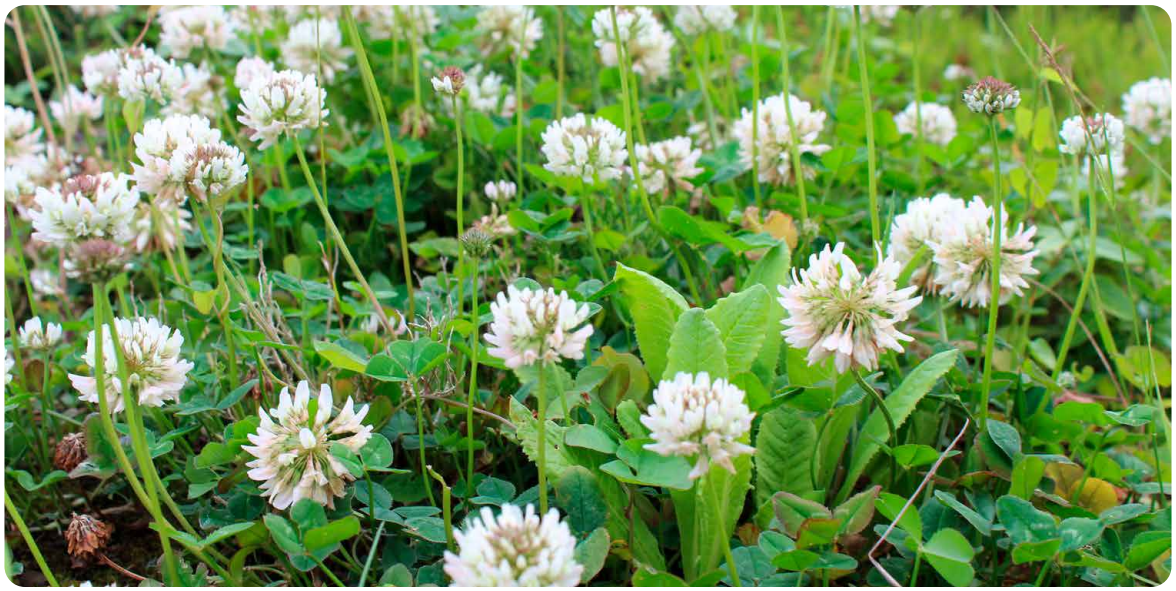
Bare soil for mining solitary bees.

Stone walls for cavity-nesting solitary bees.

A corner of the yard with nettles are great to keep for butterflies to lay their eggs. Many butterflies, including the Peacock and the Small Tortoiseshell lay their eggs on nettles as this is the favourite food of their caterpillars.



Bee hotels or holes in wood for Cavity-nesting solitary bees.



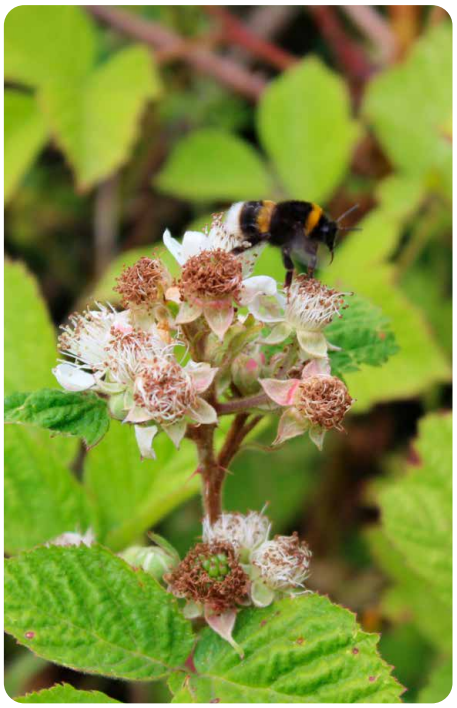
Clover is a great food source for bees.

Bare earth makes ideal nesting spot for mining solitary bees. You can see holes here of the Ashy Mining bee.

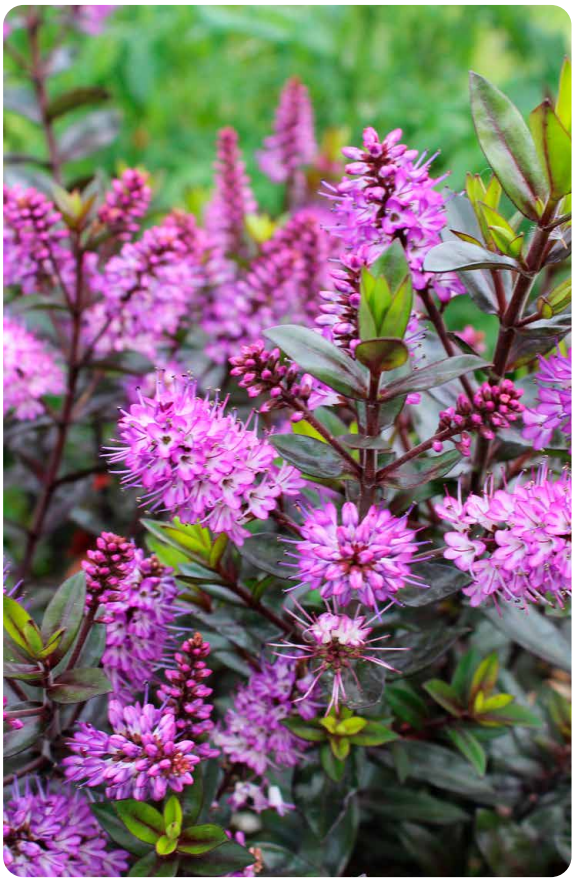
Q Tightly mown grass is important for playing sports, but do you think it's good for bees?

A No, it's like a barren desert for bees flying about looking for food. Take part in **Pitches for Pollinators** and leave your school playing pitches unmown over the summer holidays when they're not being used. This will help wildflowers grow to feed our hungry pollinators.

Bramble has lots of flowers in summer for bees to feed on. If you can leave a patch of bramble in the corner of your grounds you'll really help the bees. And you'll be able to pick blackberries in autumn.



Pretty wildflowers like these wild orchids.



Bee-friendly shrubs like this Hebe.

Sixth Class

When each group has completed their Biodiversity map of their school, they could give a presentation to the class.

Discuss with the class why you marked certain areas as good for bees, for instance they offer food or nesting sites.

Debating

If your school is engaged in debating, perhaps there are some bee topics you might like to take on. For instance:

1. Should pesticides be banned?
2. Should we do more to help our bees in Ireland?
3. Should the Government or individuals help most?
4. Should every school have a garden?