

Case Study

Strengthening ecosystem services in Swedish preschool and school grounds

Photos of the developed school site:



Website Figure CS1.1: Bug heaven – luxury accommodation for invertebrates and a handy food supply of wildflowers in the mini meadow right next door!

- Make sure children help in its construction and understand why the material they insert provides a good habitat.
- Let them sow the wildflowers and watch them grow.
- Which flowers are visited by which insects?



Website Figure CS1.2: A small bath for birds and other creatures can be fitted into the smallest space.

- Make sure the water container has ways for creatures to crawl out.
- Do the children understand what purpose this can serve for animals? Why might they need water provided in the school grounds?
- Is there space for a bigger container that might also support aquatic animals? Can the children suggest what additional features this would need to provide to sustain fish, newts or frogs?



Website Figure CS1.3: Some rich possibilities for greener school grounds.

- How many different innovations to support ecosystem services can you spot?
- How many could you implement in your school?
- You could use this picture to assess children’s progress in their understanding of sustainable environments:
 - Can they identify sustainable environments and explain how they might be useful to human and non-human inhabitants of this space?
 - Can they think of more ways they could support nature in their school grounds?

(source: from film Äventyret, Case study 1, Chapter 3)



Website Figure CS1.4: Even small areas can be planted.

- Planting different height plants will maximise the space available. Here, strawberries provide ground cover and rhubarb occupies the mid-level, though rhubarb's big leaves will spread widely as it matures. Taller gooseberry and blackcurrant bushes provide a little shade. An apple tree could occupy another level.
- The geometric-shaped beds could form part of a maths trail in the grounds.
- Reading the plant labels to see how deep and far apart they need to be placed can help children reflect on the needs of plants, whilst also requiring measuring skills.
- Hands-on planting instils longer lasting care, which will help with maintenance issues.



Website Figure CS1.5: The shade of a mature tree provides a cooler place to sit, with leafy shrubs screening a quiet zone.

- Position some quiet areas with seating under mature trees in the grounds.
- Enclosing spaces makes them attractive to children as meeting places or dens.
- There can also be break out spaces for group work.
- What teaching opportunities can you see in this picture?

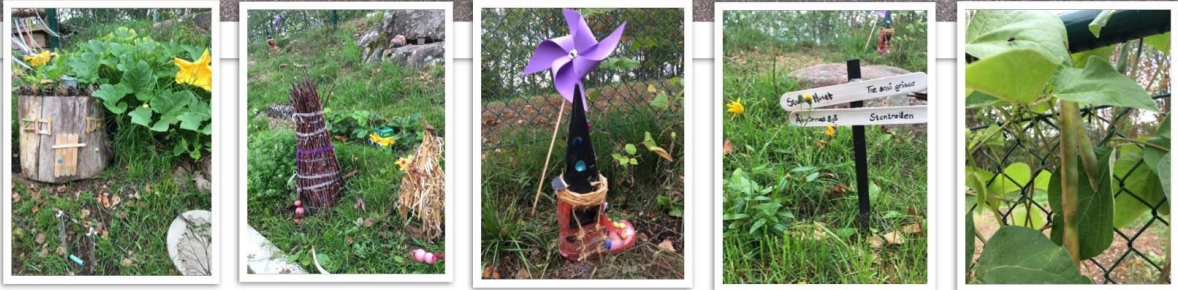


Website Figure CS1.6: Simple raised beds are packed with growing edible plants and a teepee of bean poles forms a mini shelter as well as yielding food.

- Growing food is a great motivator and an eye opener about sources of food types for many children. What parts of different plants do we eat? What happens if we don't provide water or put them in sufficiently sunny spots?
- Raised beds are useful if there are only hard surfaced playgrounds available as they are similar to large container growing. (See the RHS School Gardening website for advice: <https://schoolgardening.rhs.org.uk/home>.)
- They can also be constructed at easier heights for children to weed and harvest and can reduce mud creation – although handling and understanding soil is itself a vital lesson in climate change and sustainability education!
- Having multiple sides, children can work in groups on the bed without getting in each other's way.



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Website Figure CS1.7: Examples of the creative use of a grassy slope.

- A slope between different levels of the school grounds can be a dead zone, but it can offer many possibilities, such as:
 - bundles of twigs providing shelter for invertebrates
 - a windmill to show wind speed
 - climbing plants on netting fencing.
- Encouraging children to make signposts and labels to explain features in their school grounds will help reveal their preferences, create a sense of ownership and enable you to check their understanding.



Website Figure CS1.8: A courgette plant for food production and a fairy house for storytelling inspiration share the space.

- Multipurpose features are great ways to maximise the value of your school grounds. The children can fill the deadwood with compost and plant courgette seeds or a young plant, providing it with its requirements over time and then harvest the fruits of their labour.
- At the same time, they can add details to the log to support imaginative storytelling and design and technology skills.
- Developing a series of tales about the fairy house as a class could be part of the purpose of each visit to water the plant. Different groups of children take up the baton of the story on their watering day and tell it to their classmates.
- The plaster cast of a leaf could also be used to explain leaf structure and its role in the life cycle of the plant outside of the growing season.

Case Study

Nature Friendly Schools: Stockwell Academy, Hull



Website CS3.1: Working out what it is: a guide by the side.

(Source: courtesy of The Wildlife Trusts)

- Willow pruning, last year's Christmas tree, some stumps... Leaving leaf litter, deadwood and rough earth provides great hunting grounds for invertebrates seeking food and for pupils seeking minibeasts! A laminated guide will help pupils independently work out what species inhabit the area.
- An adult can prompt further reflection about the ways this environment supports insects, such as providing cover from predators and material to break down by eating.
- Why is a 'tidy' outside area not always rich in biodiversity? Keep some parts of the school grounds less manicured as places for play, learning and wildlife habitat.
- Logs to sit on will also provide a great hiding place for minibeasts underneath!
- Think multipurpose. Can children think up lists of who might benefit from different environmental features?