

## Cascades of green walls

*An environmental ‘paint job’ for your fences and walls, bringing colour and joy to your grounds. Green walls utilise every space for nature and are a great option if you have a lot of hard surfaces on your site.*



### Benefits for nature

Planting climbing plants at the base of walls and fences, or creating green/living walls can be an easy way to introduce new greenery without taking up valuable space. Climbing plants can provide shelter for invertebrates and nesting birds, as well as a valuable food source for insects and other animals throughout the seasons. They can also help to connect different green spaces, creating green corridors across your site.



### Benefits for people

Climbing plants act as natural insulators that regulate temperature and reduce wind speeds. When planted around the boundary of a site they act as a pollution barrier, contributing to improved air quality.



### Is it easy to do?

Climbing plants in pots or planters at the base of a wall or fence, supported by a trellis or other supports, are an easy and low-cost way to transform your space. A more permanent option that is fairly easy to maintain is to clear the ground at the base of a wall or fence and grow plants directly in the ground. Alternatively, planters can be mounted onto the wall (not a main school building) where ground-level planting is not feasible. Commercial green wall products aren't recommended as they are expensive and require specialist and costly upkeep.



### Where to start?

The guidance below helps you to select a climbing plant and a support, choose the best location, plant and look after it. Choosing a diverse range of species, such as ivy, honeysuckle and climbing roses, will create a variety of resources for nature and colour for your site throughout the year.

### Cost

£

### Season

Spring

### Impact for nature

Medium

### Key Vocabulary

#### Grey spaces

Spaces that have no, or very few, plants e.g. playgrounds, paths, car parks, tarmac and asphalt.

#### Green spaces

Spaces that have some plants already.

#### Green corridor

A continuous line of plants that connects parts of a site, allowing wildlife to move around, safe from predators e.g. a hedge, or a fence covered in climbing plants along its whole length.

If you think you'd like to enhance your site with **Cascades of green walls**, the rest of this document will show you how...

## Planning and design

In this first phase of the National Education Nature Park, the focus is on creating new spaces for nature in areas that were previously grey, so this document explains how you can add greenery to existing fences, walls or railings.

Later on you may wish to plant climbing plants or install green roofs elsewhere on your site, but before you change any existing habitats, you will want to study what is currently living there so you will be able to measure any nature gains you achieve. Guidance on our website for each specific habitat will provide surveys and activities to explore and understand your existing green areas before you start to make changes.

*For now, let's turn grey to green...*



### Access and connection to surrounding habitats

- Adding climbing plants to fences or other boundary features presents an opportunity to create a wildlife corridor – a route that allows animals to move safely across your site, safe from predators. Think of your site as a whole and look at where you could green up linear features to connect existing natural spaces.

### Designing for nature

- Select climbing plants such as ivy that don't completely die back in winter, so their leaves or bare stems still provide shelter and an air pollution barrier through the winter months.
- Choose flowering plants, aiming for a long flowering period that will provide nectar for insects throughout the seasons. Honeysuckle, clematis and ivy are particularly good.
- Some climbers like sunny spots while others prefer shade – do your research and ensure you are selecting the right plant for the right place. Consider how the sun will move round during the day, and through the seasons. Our Shade Mapping activity can help learners to explore this.
- Make sure to avoid planting any invasive non-native species. Advice on this is available on the RHS website.

### **Start small**

A large plant pot or raised bed at the base of a wall or fence, paired with a wooden trellis or wire support, makes for a low cost and easy boost to nature on your site. Choose the largest container you can fit in the space to increase the range of plants that can be grown while reducing the amount of watering needed. Use peat-free compost and select a climbing plant that fits the space available (the plant label will tell you its eventual size and spread). Depending on how the plant climbs, you may need to tie it on to the trellis or wire supports – use plastic-free string/twine if you can.

### **Scale up**

Planting climbing plants in the ground at the base of a wall or fence, creates a more sustainable green wall as the plants will not be reliant on watering once they are established. Enrich the soil with peat-free compost or soil improver before planting. Add multiple trellises or rows of wire supports along the fence or wall, and space climbing plants a few metres from one another (depending on the expected size and spread of the plant – check the label) to create a continuous line of greenery. Get creative with the supports – they don't have to be brown wood – consider painting them to add further bright colour to your site.

### **Make a bigger impact**

Take a look at your site as a whole and select fence lines that you could connect up into a network of green corridors. Planting into the ground will minimise the need for regular watering as plant roots can access deeper soils with more available moisture. Mulching can also reduce the need for watering. However, some watering is likely to be necessary when plants are first planted to help them establish, and in periods of drought, so use water from water butts if possible. Avoid watering with tap water if you can.



## Sustainability and maintenance on education sites

### Location

Use all practically available spaces: fences, sheds and boundary walls. If you do want to use the school building, seek advice first to select the right supports and plants, and discuss their annual maintenance. You may want to place them away from gutters so they don't block rainwater drainage.

### Watering

Small containers dry out quickly, and being located close to wall or fence can block the rain and cause the soil to be drier than the surrounding area. Of course, this could be problematic during holidays or busy times when they may not be watered frequently. Plant in the ground if you can, and if you need to water then try using rainwater from a water butt before reaching for tap water. Mulching can help reduce how often you need to water. Take a look at the *Catching every raindrop* guidance for how to connect planters to drainpipes to create rain gardens or stormwater planters, so they receive rainwater directly without you needing to water them.

### Materials

Always use peat-free compost and soil improver. Composts containing peat are extremely damaging to the environment, as extracting peat exacerbates CO2 emissions and climate change.

Different types of plants need different supports, so do some research on your chosen plants before buying supports. While willow supports and similar look attractive in garden centres, they don't last long before they rot. Buy heavy duty trellis or use metal wires with vine eyes, to ensure your supports last a long time.

### Pesticides and herbicides

Many commercially-available pesticides and herbicides are extremely damaging to the environment, and some can also present risks to humans. We recommend avoiding all chemical treatments – the 'pests' on plants are part of biodiversity too!

### Pruning

Most climbing plants do need some maintenance to contain them within the space available. The best time of year for pruning or cutting back will vary between plants, so read the labels before you buy. You may wish to plan your plant selection so they all need pruning around the same time of year, to keep the maintenance simpler. Make a pruning calendar as you plant up, so you know which plants need attention when. Climbing plants may well be home to nesting birds – avoid pruning during the bird nesting season (February to August) as it is illegal to disturb them. Carry out a risk assessment before pruning, as you may need to use ladders and sharp tools.



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