

Waves of grasses

Swathes of grass and wildflowers drifting in the breeze bring movement to your grounds, attract an abundance of wildlife, and can have a calming effect for staff and learners.



Benefits for nature

Tall, flower-rich grasslands are among the most biodiverse habitats in the UK. Turning hard paving to long grass, even in small areas, can support a diverse range of plants and invertebrates, such as bees and butterflies. Grasslands also provide cover, food, and breeding spaces for birds and small mammals. Removing paving will result in better drainage for rainwater, helping to reduce flooding. If you can't remove the paving, add raised beds and plant up with grassland species.



Benefits for people

The presence of colourful and diverse wildflowers has a positive impact on young people's mental wellbeing and their connection with the natural world. Flower-rich grassy areas can be created alongside paths and playgrounds, giving young people daily close-up access to nature.



Is it easy to do?

Creating grasslands is incredibly easy and they are simple to look after, only needing to be mown or cut once or twice a year. Ensuring the soil is right gives you the best chance of success – grasslands like nutrient poor soil, so no enrichment or fertiliser is needed.



Where to start?

To establish a flower-rich grassland, the easiest way to start is by removing paving from a small or larger area, depending on your resources. From there, you can sow flowering grassland seed-mixes direct onto the soil, or choose particular grassland plants as seeds or plug plants. If you really can't wait to see results, pre-seeded wildflower lawns or rolls are also available!

Cost

£-££

Season

Spring or autumn

Impact for nature

High

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.

Plug plants

Small young plants grown in very small plant pots, ready to be planted direct into the soil.

Perennial

Plants that come back year after year.

If you think you'd like to enhance your site with **Waves of grasses**, 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 create brand new areas of grassland on your site.

Later in the programme we'll share new guidance to support you to enhance existing areas of grassland, 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

- Grasslands can be created in the smallest spaces and can form useful corridors or stepping stones for wild species to move between natural areas, even if you only have space for a thin strip of grass. Connecting your new grassland to existing natural areas will help species to move in and use the area.
- Grasslands thrive when they are not walked on too much. Plant grasses and wildflowers adjacent to paths so they are easy to access and observe. In larger areas, consider mowing paths in curved lines or interesting patterns through the long grass, to provide access for exploration and play whilst leaving other areas un-trampled.

Designing for nature

Soil type

The simplest option is to choose a seed mix that's suitable for all soil types. If you wish to check your soil type before buying plants or seed, many garden centres sell soil testing kits. You can then buy a seed mix that's suited to the type of soil you have.

Location

Select an area that's in the sun for at least part of the day – grasslands will not thrive in shaded areas. Use the Shade Mapping activity to involve learners in examining and mapping areas of shade on your site.

Species mix

Searching online for perennial native grassland mixes (seed, plug plants or turf) will bring up a range of suppliers who offer general purpose 'native flowering grassland' or 'native meadow' seed mixes as well as mixes tailored to different soil types and various combinations of grasses and wildflowers.

A flowering native grassland mix with lots of perennial plants (ones that come back every year) will be much easier to maintain for the long-term than annual wildflowers that will need re-sowing every year. Once the grass is established, add a plant called Yellow-rattle, the 'meadow-maker,' to weaken dominant plants and boost less competitive species. This increases the diversity of plants that will grow. Yellow-rattle needs grass for its survival as it is semi-parasitic, feeding off the nutrients in the grass roots, so you can't plant it until grass is present.

You can encourage local native plants by spreading 'green hay', which is the fresh clippings of an existing local grassland taken in late summer.

In small spaces, prioritise seed mixes containing fine-leaved grasses like red fescue (*Festuca rubra*) and common bent grass (*Agrostis capillaris*), rather than larger grasses.



Start small

Creating a new grassland in a raised bed is one way to add grasses to small sites. However, raised beds will need more maintenance than planting in the ground. While grasslands are typically expansive habitats, introducing native grassland plants to raised beds can still boost biodiversity. This option is great if you cannot remove any of the hardstanding from your site. However, you'll need the biggest raised bed you can fit in your space.

Species-rich grasslands flourish in soil with low nutrient levels. So rather than filling the raised beds with compost, you will need a low-fertility topsoil. Adding sand or gravel will help dry grassland plants. Sow seed or plant up in Autumn, as raised beds are prone to drying out during summer and the plants will need time to establish.

Watering during dry spells is vital; whenever possible, rely on collected rainwater instead of mains water. Cut the grass once a year in late summer or autumn, and remove the clippings. In larger beds, designate an uncut area, rotating its location each year. Springtime weeding may be needed to remove larger plants such as docks and thistles that could overwhelm small habitats.

Make a bigger impact

Create grassland on areas that were previously covered by concrete, paving, gravel or other human-made surfaces. Removing hardstanding to create habitat in this way helps climate resilience as well as biodiversity.

Removing paving unlocks previously inaccessible habitat, expanding natural areas and improving rainwater drainage to mitigate flooding.

You must check that there are no pipes or underground utilities beneath the area. To save on waste removal costs and encourage reuse of materials on site, you may be able to use some of the old paving material to bring structural diversity to your new grassland (a bit like a rockery area amongst the grass).

Once paving is removed, the soil will need some care before its ready to be planted. It will be highly compacted, so dig it over. For small sites, hand tools or garden forks will do the job. For larger areas, you may need professional help from a gardening company. Ensure the surface is fine and crumbly, raked over and watered, ready for planting.

Sow your seed mix directly onto the soil, don't cover it but press it in with a roller or by treading/walking on it. For faster impact, plant plug plants or lay wildflower or grassland turf, opting for a low maintenance option.

You can remove paving at any time of year, but sowing seed is best done in autumn. Plug plants should be planted in the spring and turf laid in early and spring or autumn when there is plenty of rain to help it establish.

Sustainability and maintenance on education sites

Make sure to involve your grounds maintenance teams, so they know you are deliberately growing the grass long. Changes to the normal mowing regime need to be agreed with them to ensure all maintenance staff know when and how often to mow. Adding signage can also help to remind them that you are letting the area grow for nature – involve learners in designing and creating this signage.

Cut the grass once a year in late summer or autumn, and remove the clippings. Leaving the grass cuttings in place will add nutrients to the soil and make a small number of species dominate, leading to lower overall diversity. Carefully timed mowing, and the removal of grass clippings and invasive species will help to maintain diversity.

Selecting the right grassland plants to ensure easy maintenance and long-term sustainability of the habitat is key. Choose perennial plants that return year after year.

The main cost is removal of hardstanding and preparing the ground. There may be a cost associated with new topsoil if you need to replace it. The plants themselves are low cost – seed can be as little as £10 for 20m², whereas flowering grassland turf to cover this same area would cost at least £500 and must be laid very soon after delivery. Plug plants cost £0.80p-£1.50 per plug plant (the more you buy, the cheaper it is) and these can often only be purchased in the spring.



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