



Climate Ready School Grounds

Technical Area: Biodiversity & Ecosystems

As our climate changes, so too will the biodiversity and ecosystems around us. Our existing school ecosystems will need to adapt, perhaps at a faster rate than nature can manage. This change will impact biodiversity, with plants and animals which have previously thrived now struggling.

We already know that much of our ecosystems are in decline, for a host of reasons. By using nature-based solutions for the other technical areas, we will of course be increasing biodiversity and supporting ecosystems. This technical area is then a 'common thread' for most schools in becoming climate ready.

School grounds, which are usually dominated by mown amenity grass and asphalt, offer a chance to make a measurable difference to biodiversity. Even if your space is dominated by asphalt, it is possible to use raised beds or containers, and 'build up' in a way which means you do not have to dig up the asphalt.

For many schools, there is a need to increase in many areas, and this includes soil health and biodiversity. We do know that trees alone, while good, are not the full solution. Considering a variety of trees, shrubs, plants, and meadows is important, and attracting wildlife, bugs, fungi, and microorganisms should also be part of our efforts.

This transformation of space will require support and changes in the maintenance regime and site owners. There will be a formal process for you to notify and work with the site owners or facilities managers.

In addition, a more nature rich environment can challenge some people's preconceptions of what a school should look like. As a society we have become used to the mown grass and flat tarmac. Any change needs to be explained to our school and wider community.

Why would you prioritise biodiversity and ecosystems?

Any site with a majority of hard surfacing such as asphalt and astroturf may want to consider increasing planting and biodiversity. This is because it would have a significant impact on biodiversity and ecosystems, but also across the other technical areas.

Any site with significant space can create larger areas of rich habitats and should therefore also consider this technical area. Many schools have areas around sports pitches or fenced off from pupils which can be improved from the mown amenity grass very simply.



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Solutions

This list is not exhaustive, and we would encourage all schools to do their own research and perhaps engage with local advisors on what changes are best suited to their site, soil, and climate.

For example images to inspire changes in your own school grounds, [visit our technical areas page](#).

	Cost	Benefit
Planting flowers, herbs, and long grass: We know that areas of rough, varied planting retain less heat than mown grass and certainly more than asphalt. This can of course be in the ground or in raised planters.	£	****
Planting shrubs and hedges: Both shrubs and hedges can create pools of shade and cover significant areas of space. When well-planned, they can also allow access to play and learn, or can be close to buildings to create shade and heat buffers for walls and windows. This can, of course, be in the ground or in raised planters.	£	*****
Planting trees: Mature trees can be excellent for seasonal shading large areas of space and buildings. Smaller trees can also help, and of course over time they become mature trees. Consider seasonal change, allowing more sun and warmth in during winter, but having heavy leaf cover in summer.	£	****
Amenity grass (mown): While not as good as the longer grass, typical sports field mown grass is still significantly better than asphalt.	£	*
Wet areas: Water is vital for all living things, so providing a source of water in your school grounds will increase the range of plants and animals that can survive there. This can be boggy areas, flooding puddles, or proper pond areas.	££-££££	*****
Bug, butterfly, bird, and bat boxes: Providing homes for wildlife encourages them to stay and seek shelter. Best when combined with sources of food or feeding.	£	**



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	Cost	Benefit
Wild areas, leaf or bark covered areas: For the best results, leave undisturbed as much as you can. When combined with shrubs, trees, and log piles, these spaces are very attractive to wildlife.	£	****
Pollinator friendly planting: Both attractive in season and provides food for many insects – which in turn are food for larger creatures such as birds and bats.	£	*****
Planting orchards: Fruit trees can provide a home for many insects and provide a food source for pupils and other animals.	££	***
Soft fruit or fruiting hedges: These can provide a varied source of food for insects, birds, and other animals. Do be careful about planting only plants with human edible berries on a school site.	£	****
Stop using any chemicals: It is easy to reach for chemicals to stop ‘weeds’ or neaten up spaces. These chemicals have a significant impact on biodiversity for years to come, as well as having risks to humans.	£	****
Green walls: Offer a varied habitat for many insects on site, and can be particularly useful if your site has a significant amount of tarmac or limited space.	£££	**

More resources and information

[Natural Nations: lessons in biodiversity](#)

[Polli:Nation Maintenance Guide for Schools](#)

[Growing School Orchards](#)

[RHS Campaign for School Gardening](#)

[Better Hedgerows \(The Tree Council\)](#)

[Nature Discovery Map Scotland \(NatureScot\)](#)