



# Climate Ready School Grounds

## Technical Area: Carbon Management

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The relationship between carbon dioxide and climate change is well established, particularly the fact that an excess of human-caused carbon dioxide in the atmosphere is a significant cause of global warming.

The good news is that nature can be very resilient and can absorb and sequester ('lock away') carbon from the atmosphere and into the soils, plants, and trees around us. Therefore, creating significant areas of green infrastructure can absorb carbon, a way in which schools can also contribute to reducing climate change, not just adapting to its impacts.

### **Why would you prioritise carbon management?**

Any area of green infrastructure will contribute to reducing carbon in the atmosphere. A school with a significant amount of space which can be improved will, of course, be able to do more in this area.

This is a significant learning opportunity to be made use of, allowing learners to take action and feel agency. This helps to address issues of eco-anxiety and feelings of lack of control, and is therefore a positive choice for many learners.

You may also find that carbon management can open up funding sources, with many carbon offset schemes and planning requirements requiring projects to invest in.

### **What type of site do you have?**

Green infrastructure which has impact requires space and soil. Therefore, you need to be clear about what can be achieved if you have a small or predominantly asphalt site. In tighter or older sites, it may be possible to use roofs and walls. This, however, can be expensive and technically challenging.

If you are fortunate enough to have a larger site, seeking areas where play and sports can continue but surrounded by green infrastructure can work well. Some schools also have significant areas which are not accessible to pupils, and moving away from the default of mowing grass therefore offers an easy solution.

Speed of process to sequester is important. While trees offer a long-term benefit, herbs, flowers, plants, and shrubs often offer a much faster and greater volume of carbon sequestration. It is probable that a combination of planting is the best solution for most sites.



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### Solutions

The solutions here are focused on a rapid response to taking carbon out of the environment and sequestering it into the soil, plants, and trees.

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

	Cost	Benefit
<p><b>Stop mowing the grass:</b> A simple first action is to stop mowing as often and encourage longer grass growth. Work with the contractors and site owners to negotiate areas to stop mowing, and perhaps introduce simple marker poles to maintain the cutting boundary.</p>	-	****
<p><b>Planting flower and herb meadows:</b> These plants grow rapidly and can very quickly begin the process of sequestering carbon. They can also process a larger volume of carbon into soil than young trees.</p> <p>It is important to consider the variety of plants you use and the fact that they may still need some management through mowing occasionally. Take local advice on the variety of native species to use, and plant for the long term.</p>	£	*****
<p><b>Planting shrubs and hedges:</b> Like the flower and herb meadows, many shrubs and hedges grow quicker and sequester carbon at a faster rate than trees initially.</p> <p>Consider a variety of native species and remember that by placing them carefully you can deliver multiple other benefits. Plant for the long term, allowing nature to take over.</p>	££	*****



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	Cost	Benefit
<p><b>Planting trees:</b> Trees are the 'default' answer to carbon sequestration, and it is important that we include them in our plans. However, trees often take significant time to really start sequestering carbon efficiently or in the volume hoped for. Therefore, meadows, shrubs, and hedges should be part of any tree planting plan.</p> <p>Consider a variety of species, and that by placing them carefully you can deliver multiple other benefits.</p>	£	*****
<p><b>Ponds and boggy areas:</b> Can offer really significant benefits here and should be considered if you have the space to create them. Ponds and boggy areas will often sequester carbon at a very fast rate, and from early on.</p>	£££	*****
<p><b>Compost on site:</b> Composting of waste is a fabulous way of locking up carbon and reducing the resources spent in taking materials off-site. This does take some management and effort, but as you green your school grounds, you will find more and more things that you can collect – such as leaves and grass clippings which, when combined with a source of carbon (wastepaper works well), lock the carbon away into the soil.</p>	£	***

### More resources and information

[How to plant a low-carbon garden \(RHS\)](#)

[Grow a low-carbon wildflower meadow \(RHS\)](#)

[How to turn your garden into a carbon sink \(BBC\)](#)

[Ponds can absorb more carbon than woodlands \(The Conversation\)](#)