

Sustainability Matters

Let's add a new asset to the programme, A bug hotel!

April 2019



Building a Bug Hotel

As a follow up to last month's *Sustainability Matters* here is a construction challenge for all the family and an excellent Easter holiday activity. Building a Bug Hotel at home will promote both biodiversity and our commitment to Zero Harm 24/7. It is also a great way to re-use potential waste materials from around the house. It should cost you nothing, apart from than about half an hour of your time. For the kids it may help inspire environmental champions of the future!

The guidance below has been taken from the RSPB website, more detail and a film can be found here:

<https://www.rspb.org.uk/get-involved/activities/give-nature-a-home-in-your-garden/garden-activities/build-a-bug-hotel/>

What you will need

You can choose any of the following:

- Old wooden pallets
- Strips of wood
- Straw
- Moss
- Dry leaves
- Woodchips
- Old terracotta pots
- Old roofing tiles
- Bricks, preferably those with holes through them
- Old logs
- Bark
- Pine cones
- Sand
- Soil
- Hollow bamboo canes
- Dead hollow stems cut from shrubs and herbaceous plants
- A sheet of roofing felt
- Planks of wood.

Plus, whatever else you can find – but preferably natural materials....



Bug Hotel materials

Photo credit: RSPB

Step-by-step guide

- 1.) Choose a suitable site in a garden. It needs to be level and on the ground firm. You will get different residents depending on where you place your hotel, as some like cool, damp conditions and others (such as solitary bees) prefer the sun. If you have vegetable beds, keep it a good distance away from them.

2.) **The basic structure.** You will need a strong, stable framework that's no more than a metre high. Old wooden pallets or bricks are perfect for a large hotel as they are sturdy and come with ready-made gaps. Start by laying some bricks on the ground as sturdy corners. Leave some spaces in between the bricks – try creating an H-shape. Add three or four layers of wooden pallets on top of your bricks. If you leave larger ends, you're more likely to attract hedgehogs. You can also make a smaller structure, depending on the wood and space you have.

3.) **Fill the gaps.** The idea is to provide all sorts of different nooks and crannies, crevices, tunnels and cosy beds. Include:

- dead wood and loose bark for creepy crawlies like beetles, centipedes, spiders and woodlice
- holes and small tubes (not plastic) for solitary bees made from bamboo, reeds and drilled logs
- larger holes with stones and tiles, which provide the cool, damp conditions frogs and toads like – if you put it in the centre, you'll give them a frost-free place to spend the winter (they'll help eat slugs)
- dry leaves, sticks or straw for ladybirds (they eat aphids) and other beetles and bugs
- corrugated cardboard for lacewings (their larvae eat aphids, too).

4.) **Add a 'roof'.** When you think you have gone high enough, making sure the stack remains stable, put a roof on to keep it relatively dry. Use old roof tiles or some old planks covered with roofing felt. You could even give it a 'green' or 'brown' roof by putting a bit of rubble or gritty soil on top. Only plants that love dry conditions cope up there, but some wild flower seeds could arrive on the breeze and take root. If you can, surround your hotel with nectar-rich flowers – essential food for butterflies, bees and other pollinating insects. If you want, choose a name for your hotel and put a sign up outside. Children of all ages get a thrill from building their first home!



Filling the gaps (gardening gloves recommended!)

Photo credit: RSPB



Adding a roof (gardening gloves recommended!)

Photo credit: RSPB

On a bigger scale - Biodiversity Net Gain – Principles and Guidance for UK Construction and Developments

The Bug Hotel is very similar in concept to some of the mitigation features ADCW has installed on sites within the garrisons because of our construction work and disturbance. **Biodiversity Net Gain** is an emerging term linked to new development. Its objective is to leave biodiversity in a better state than before the construction work started. Where a development has an impact on biodiversity it encourages developers to provide an increase in appropriate natural habitat and ecological features over and above that being affected. In this way it is hoped that the current loss of biodiversity in Britain through development will be halted and ecological networks restored. There have been recent consultations on making Biodiversity Net Gain a mandatory part of the town planning system, many projects are already designing Net Gain into their proposals and the National Planning Policy Framework already encourages a Net Gain approach. previous policies of 'no net loss' mitigation have not delivered enough protection and a different approach is now required to make progress towards reaching Britain's biodiversity targets. It is now likely that local authority ecologists will ask more demanding questions about habitat creation and replanting during their consideration of planning applications. The solutions will involve assessing negative impacts on habitats arising from a development and calculating how much new or restored habitats are required, focussing on the correct type of habitat to deliver sufficient Biodiversity Net Gain.

This research and work is linked with UN Sustainable Development Goal (UN SDG) 15. More information about the 17 UN SDGs can be found at: <https://sustainabledevelopment.un.org/?menu=1300>