



Topic based resource

Build your own minibeast



cadwch keep
gymru'n wales
daclus tidy

Background Information

School Grounds can be brilliant for education, play and wildlife. Children today spend less than half the time playing outdoors that their parents did. They are growing up in a more sedentary fashion, increasingly indoors and in a virtual world. Which means getting out and into the school grounds may be the only interaction a child has with the outside world.

School grounds are safe and accessible and if managed and used properly, the site your school occupies can become not just a playground, but a rich source of teaching and learning opportunities covering topics ranging from art and history to sustainable development, food growing and biodiversity.

Development of the school grounds can give pupils experience of crucial life skills such as design, budgeting, sourcing and project-management. It can also encourage ownership and responsibility for their surroundings.

Recent research has highlighted that well designed school grounds can improve behaviour, reduce bullying and reduce vandalism.

So, survey the school grounds. Discover what facilities you have already and make a list.



What do you need to do to improve things further? Create a map, take photographs or make a video.

Interview pupils to gather opinions about the school grounds. What is their favourite area? What do they use most? Are they aware of everything inside the school grounds? Have they any suggestions for future developments?

Investigate what creatures live in your school grounds. Carry out a minibeast or wildlife survey or just sit and see what appears.

Create new habitats in your school grounds. Make homes and feeders for the creatures that live there and to encourage them to stay. Decide on the best places to put them.

Hold a planting day – This could include bulbs, pollinating plants, wildflower meadow creation or even trees and hedges. What food could you grow?

Climate Perspective

Global warming is heavily linked to increased levels of CO₂. Trees are natural carbon catchers and air filters making them important in tackling climate change and poor air quality. The London Plane tree is particularly resistant to air pollution which is why you see it growing in our city streets.

Half of Britain's ancient woodlands have disappeared since the 1950's but the good news is that woodland cover in Wales has quadrupled since the early 1900's (2019 State of the Nation Report). Schools can make a huge difference here, everyone can plant a tree and more often than not, schools have the space. So, make it an Eco-Schools action and plant a carbon catcher as soon **as you can**.



Activity

Build your own minibeast!



Aimed at KS2

Global Goals:

13 – Climate Change

15 – Life on Land

Aim – To introduce learners to education outdoors with a specific emphasis on the wonderful world of minibeasts.

Objectives:

- To introduce the importance of school grounds for wildlife.
- To discover the multitude of minibeast habitats present in school grounds.
- To explore adaptations minibeasts have made, to enable them to survive in their chosen habitat.
- To understand the importance of providing 'no cost/low cost', simple habitats to increase the diversity of minibeasts in the school grounds.

Resources:

- Clipboards/Card/Double Sided Sticky Tape
- Bug pots/Magnifying glass/soft brush or spoon
- Paper/Pens/Pencils
- I-Pads
- RSPB Minibeasts Spot It 1+2 - www.rspb.org.uk/globalassets/downloads/documents/kids-and-schools/spot-it-bilingual.pdf
- RSPB Homes For Nature - www.rspb.org.uk/globalassets/downloads/kids--schools/teaching-resources/make-a-bug-hotel.pdf
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Activity background information:

Minibeasts are small creatures like worms, snails, spiders and insects. The scientific name is invertebrates, creatures without a backbone. Invertebrates make up approximately 97% of creatures living on earth and there are 25,000 species in Britain alone!

Minibeasts are crucial for survival. They recycle dead matter and waste products and they are massively important for plant pollination as well as being a crucial source of food for others.

They are easy to find. Search under logs, on tree leaves and bark, in long grass, dark places and under stones. They have the most amazing adaptations to life which children love to discover. Many use camouflage to good use to blend in and hide from predators or sneak up on prey. The comma butterfly disguises itself as bird poo! The cinnabar moth caterpillar is brightly coloured warning predators that it tastes disgusting.

So, grab a magnifying glass, bug pot and soft brush/spoon and see what you can find!



Activity:

1. Highlight how diverse the world of minibeasts is with the background information above. Ask the learners what creatures they predict they will find in their school grounds?
2. Before heading outside set important health and safety guidelines including – be careful of rough terrain, only touch creatures with soft brush/spoon, keep hands away from mouth and wash hands well with soap on return inside, highlight plants that will sting.
3. Tree Detective – Introducing learners to the outdoors. Complete this activity whilst walking to the designated minibeasting area. Trees are important habitats individually and collectively. The more species in an area the better. Set a learning challenge. How many different trees do you think we have? Ask the learners to record the different trees by collecting leaves and sticking them to the leaf pallet (card and double-sided sticky tape). Alternatively, textures could be recorded through the bark, or winter buds or sketching/photography or a combination. Discuss findings.



4. Minibeast Safari – Split into groups of four and make sure each group has a set of equipment to share – magnifying glass/bug pot/spoon/soft brush/RSPB recording sheets. Encourage them to work together exploring tree bark, under logs and stones, long grass, under leaves etc. Highlight the importance to be gentle when catching the creatures with spoon/brush. Have only one creature in the pot at a time and encourage careful observation asking basic questions – How many legs do they have? Are they camouflaged? Can they fly? How do they move? What enables survival in their habitat? Once the group has explored the creature place it carefully back where it was found. Showing all living things respect is an important element of this activity.
5. Build a Minibeast – Adaptations. As a whole group discuss what was found and where the best minibeast habitats were. Discuss simple adaptations spotted – How did they move? Were they colourful? Could you spot eyes? Were they fast or slow? Did you see them hunting, if so, how did they catch their prey? There are so many questions here so just pick a few. Now the building. Set a 20-minute group challenge to build your own minibeast using natural materials (wood, stones, leaves, feathers, pinecones, anything that can be found basically. Encourage creativity as well as information gained from the minibeast safari. Once the minibeast has been created set a 10-minute challenge to create a life history/story for their creature- What is it called? Where does it live? How does it move? Is it a predator and how does it catch its prey? Finally, spend 15 minutes visiting all the creatures hearing the stories delivered by each individual group.



Extension Ideas: Think about creating more minibeast habitats within the school grounds. This could be tree planting, creating a log/stone pile, building a pond or building a bug hotel – see RSPB Homes for Nature listed in the resources. Encourage the learners to plan where to place the habitat and determine the resources needed and create the actual plan. Add this as a School Grounds/Biodiversity action to the overall Eco-Schools action plan.

Develop identification sheets for the minibeasts made in the outdoor session or create a story or poetry linked to the creature.

Curriculum Links

Purposes:

- Ethical, informed citizens of Wales and the world.

AOLE's

- Science and Technology

What matters statements:

- The world around us is full of living things which depend on each other for survival.

AOLE's:

- Humanities

What matters statements:

- Informed, self-aware citizens engage with the challenges and opportunities that face humanity and are able to take considered and ethical action.
- Our natural world is diverse and dynamic, influenced by processes and human actions.

AOLE's

- Languages, Literacy and Communication

What matters statements:

- Expressing ourselves through languages is key to communication.



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