

For further information and booking please contact Sarah on

**education@gardenofwales.org.uk or 01558 667150**

Our educational programmes are normally 1 1/2 hours each and if needed we will allocate you a lunch space, or you can have a picnic. All of our programmes are curriculum linked and our staff work with local schools helping to deliver the new curriculum.

If the programs do not match what you need we can customise them or develop a program specially for your pupils.

If you want to visit and to lead yourself, that is no problem, we can supply you with self led trails, or you can use our teachers to deliver 1 or 2 programmes.

**The costs, as of January 2024, are;**

**Self Led £5.00per pupil + VAT**

**1 Program £7.50 per pupil + VAT**

**2 Programs £10.50 per pupil + VAT**

**These prices are subject to change**

**BBOP lesson is £9 + VAT & Meet the Birds of Prey is £6 + VAT**

**For Pizzas & Foodmiles Pizzas carry extra cost POA**

Most schools arrive at 10am and leave at 2pm, depending upon where you are travelling from.

We are used to working with pupils with SEN and BESD issues, our classrooms are fully accessible and the calming environment means pupils who struggle in the class enjoy their visits.

Our skilled staff are flexible and have a wealth of experience working with the full spectrum of educational settings.

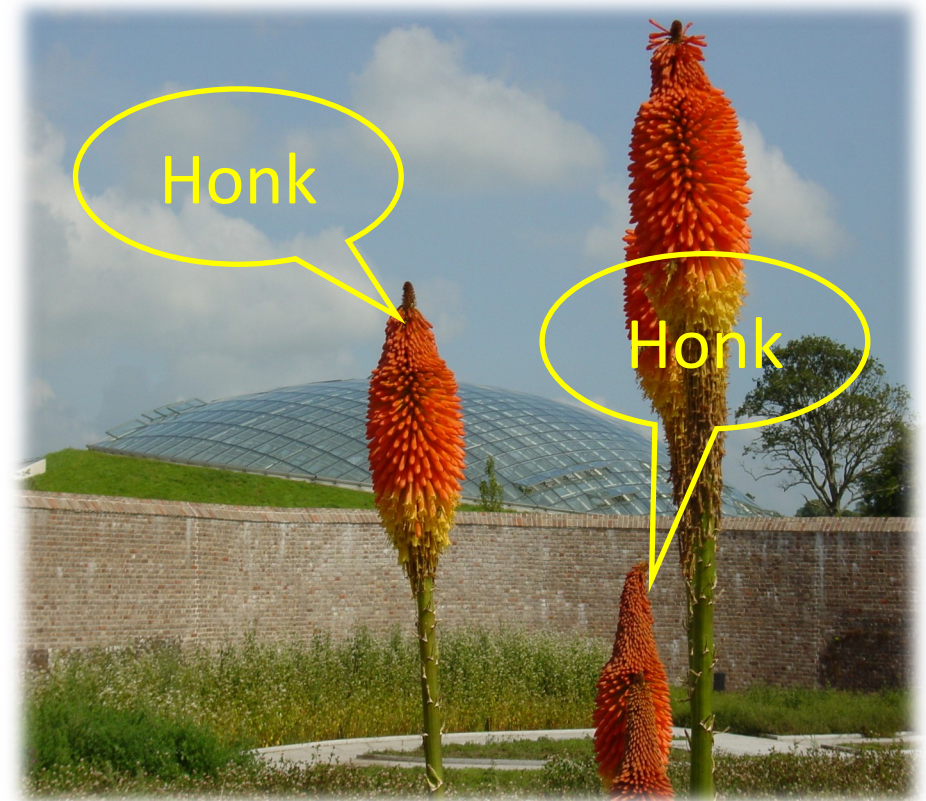
For other enquiries please contact Paul Smith, Education Development Manager  
paul.smith@gardenofwales.org.uk

**We look forward to your visit**

Many thanks to Tim Jones Photography for the use of many lovely images.

# National Botanic Garden of Wales


## Education Programmes 2024/25



## Reception and KS1

We appreciate that many of our younger visitors have different educational requirements, we have many activities specially developed for them and most of our other activities can be customised for them.

### Mud Pies, Dens & Wiggly Things




Suitable for	
PS 1	✓
PS 2	✓
PS 3	✗

Join caterpillar as it looks for its wriggly and furry friends in their woodland habitats. Explore how they live and what they eat. Make clay hedgehogs and dens for them to live in.

## Outdoor Education

We aim to deliver activities outdoors whenever possible, these activities use specific outdoor areas and ensure that pupils learn to cooperate and enjoy our beautiful outdoor spaces.

### Habitats



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Explore the habitats, homes and lives of woodland creatures. Observe animals in their natural environment and create habitat for a woodland inhabitant. Find out and imagine what it is like to be a creature in the woodland.

## Brownies, Guides, Scouts, Rainbows, Rangers



How do you top a night under the stars? How about a night under the stars in the largest single spanned glasshouse in the world? This would be an unique and memorable experience for everyone and one your group will be talking about for years to come!

Here at the Gardens we specialise in catering for large Brownies/Scouts/Guides adventure groups. If the Glasshouse isn't hardy enough for you we also have the space for you to set up camp and enjoy the evening in your tents.

During your sleepover we'll help you work towards achieving as many badges as you wish from your clubs list. We can offer activities for all ages and abilities from cooking on a campfire to pond dipping to building rafts.

As a leader you won't have to worry about a thing, we'll help take care and plan your whole visit, from the arrival, to activities to sleeping arrangements.

We ensure that everyone sleepover is tailor made to your group so please don't hesitate in contacting us to discuss which badges you would like to achieve during your sleepover with us.

For prices and any further enquiries please email:

[education@gardenofwales.org.uk](mailto:education@gardenofwales.org.uk)



## CPD

We deliver high quality and unique outdoor education, horticulture, fire lighting, tool use, primary and secondary science & environmental education training to a variety of groups from 1st year BEd secondary PGCE, meithrin leaders and teachers. We are helping to shape the new Curriculum for Wales and can tailor our expertise to your needs. We do not offer a large file full of impractical ideas but will empower you to deliver experiences that your pupils will enjoy and remember.

## Horticulture CPD



Horticulture is a fantastic teaching tool especially now with the new curriculum.

We offer bespoke training for teaching staff around this unique topic. We tailor make your training and can offer everything from introduction to horticulture to in depth training on propagation, creating your own veg garden to successional sowing.

We apply a hands on training approach and will include ideas for you to take back for any class. By the end of the day we aim to leave you with knowledge, confidence and countless ideas for your Horticulture adventure back at school.

## Bear Hunt



Suitable for  
PS 1 ✓  
PS 2 ✓  
PS 3 ✓

Who lives in the Forest?

Who lives in the Mud?

Who lives in the Water?

Who lives in the Jungle?

Who lives in the Undergrowth?

Who lives in the Grass?

Who lives in the Cave?

## Tedwen



Suitable for  
PS 1 ✓  
PS 2 ✓  
PS 3 ✓

Tedwen is going on an adventure to find his woodland friends. Learn all about the need for food, water and shelter. Bring your own favourite Teddy and join in a day of fun and stories in our wonderful woodlands.

## Biodiversity CPD



Suitable for  
PS 1 ✓  
PS 2 ✓  
PS 3 ✓

What is Biodiversity?

Is your school 'Biodiverse'?

How do you measure Biodiversity?

Can you improve your schools biodiversity? How?

Do Bees need a balanced diet?

Discover all this and more on our half day training. Enquire for details.

## Castaways & Survival Skills



Suitable for  
PS 1 ✓  
PS 2 ✓  
PS 3 ✓

Head out in to the woodlands and put your survival skills to the test! Find out what it takes to survive in the wild.

Start your own fire with flint & steel, build your own shelters and source a water supply.

Is your class up for the challenge?

## Grape Escape



Suitable for  
PS 1 ✓  
PS 2 ✓  
PS 3 ✓

Design and build a raft using only materials found at the Garden that will carry a grape down the 200 metre Rill and save it from being juiced.

Pupils will work together to make and test their own designs.



We are rooted in Wales and we are the National Botanic Garden of Wales, we preserve native Welsh plants and landscapes. Our programs promote Welsh legends and stories such as the Physicians of Myddfai and uses herbs to create traditional natural remedies .



## Plants in Medicine



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Explore the medicinal uses of our garden plants and herbal remedies to create a potion to cure your teacher of their unusual ailments and explore the Apothecaries hall and garden.

## Horticulture & Growing



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

If you want to encourage green fingered learners in your classroom we have a host of lessons and activities to help you on every step of your journey. Choose from the basic introductory lesson to in depth lessons for your learners to focus on a specific element of horticulture.

We will give you the ideas and skills you need to take back to school and start your own growing journey. If you already have a garden in school we can offer sessions at the school—please enquire.

## Self Led



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Where will your teacher lead you? Africa & Australia & maybe California? Ancient trees and Tropical forests? Dinosaur dinners? Maybe even the Gruffalo? Hunting for Flora, Fauna & Fungi—the choice is yours!

You are welcome to choose from the following Horticulture lessons

- intro to Horticulture
- Propagation
- Successional sowing
- Garden Design
- Crop Rotation
- Annuals and Perennials
- Pests and Diseases

We offer this as one standalone lessons or you are welcome to we are happy to deliver a series of Horticulture lessons in your school garden!



## History in the Landscape

The inspirational restored landscape offers many learning and enrichment activities. Walk with our staff into the past and emerge with an understanding of the present.

### Views From the Past



**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

Take inspiration from our Horner paintings which portray our historic landscape. Can you recreate these paintings? Then can you apply a modern twist on these historic images.

Explore the iconic vistas of our restored estate so be prepared for a physical and mental step back in time.

### Physicians of Myddfai



**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

Explore the story of the Physicians of Myddfai. Make herbal remedies to cure your teacher and explore the apothecaries hall and garden.

### Welsh Myths and Legends



**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

Discover the Welsh legends that make our area so magical. Engage with the legends of Twm Sion Cati, the Twrch Trwyth, Bedd Gelert, Cantre Gwaelod and the Lady of the Lake.

The National Botanic Garden of Wales is the perfect backdrop to immerse yourself in these magical myths and legends.

## British Bird of Prey Centre

The BBOP centre is based at the NBGW and can deliver bespoke lessons, you can see flying displays and visit

the aviaries.



### Meet the Birds of Prey




**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

Visit our native Birds of Prey in their homes and learn about each species, where they live in the wild and what they eat.

See the birds show off their amazing flying skills at 11.30am, 1.30pm and 3pm, while the presenter tells you more about them.

### Life on an Historic Estate



**Suitable for**

Reception	X
KS1	✓
KS2	✓

Discover what life was like for the Paxton family, how they lived during the Regency period, including the servants and children. You will learn about the significance of the Ice House, the Double-Walled Garden, the Stable Block, Paxtons Tower & Tŷ Melyn.

Play with toys from the period, take part in games and activities and compare them to today.

**For more information contact**  
education@gardenofwales.org.uk  
01558667150

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# Living Creatures in the Gardens

## Life in Ponds

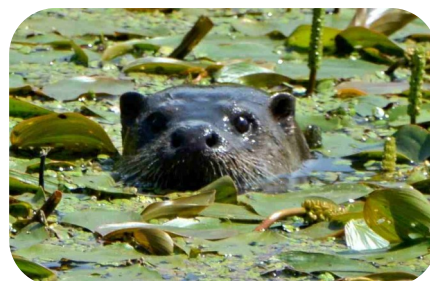
Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Come pond dipping with us to find out about the complex ecosystem of our ponds. Learn about food chains, habitats and use keys, magnifiers & microscopes to identify what you catch.

## Minibeasts

Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Explore the habitats of some of the creatures that live in the garden; find out where they live and why, who eats who and how to identify them.



## Rocks and Soil

Suitable for	
Reception	X
KS1	X
KS2	✓

Explore different soils and rocks, look at the compositions of both and what they can be used for, learn the story of some rocks from Earth and beyond.

Sustainable Earth 4 & 5, How Things Work 1  
Communication 3,

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## Microscopy & DNA Extraction

Suitable for	
PS 1	X
PS 2	✓
PS 3	✓

Learn laboratory techniques to extract your own cells and how to view them under microscopes. Extract DNA from plants and use the same tools as scientists to discover the basic instructions of life.

## Soil Explorer

Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

You are standing on the roof of a parallel soil world populated by more species of animals and plants than you will ever see above ground even in the rain forests of the Amazon.

They are small, mostly microscopic in size and many are yet to be identified and named.

In just one handful of fertile soil, there can be 100 billion bacteria and 50 kilometres of fungal filament.

Using specialist equipment we will explore different soils and see what we can find and identify using microscopes and learn why this hidden is so important.

BRITISH SOCIETY OF SOILSCIENCE

## Space - Solar System - Meteors & Time

Suitable for	
PS 1	X
PS 2	✓
PS 3	✓

Take a trip through the life of the Universe, discover the size of the planets compared to the Sun and how far away they are, meet some truly ancient meteorites and find out where you come from.




## Science & Soils

Explore what lives underground using our British Soil Science Society funded equipment, going underground!

We can deliver higher level specialised science activities that will stretch and engage all learners, if you want to customise lessons for your class investigations please enquire at [education@gardenofwales.org.uk](mailto:education@gardenofwales.org.uk)


### Solids, Liquids & Gases



Suitable for	
PS 1	X
PS 2	✓
PS 3	✓

Explore states of matter, solids, liquids, gases and plasma in our lab, play with flammable vapours, make non Newtonian substances that aren't too sure what they are and find out why pirates have chewed heads.

### Pollution Indicators




Suitable for	
PS 1	X
PS 2	✓
PS 3	✓

Use a combination of abiotic and biotic factors (living and not living) to investigate air and water quality. Pupils will measure water quality, lichens and freshwater invertebrates to determine air pollution levels in the Gardens and then be able to repeat the exercise in your school grounds.

The National Botanic Garden of Wales is a recognised habitat for many unusual species including Dormice, if you are really really lucky we might meet one. We also have a great variety of other animals that are often visible in the air, on the ground and in the water.

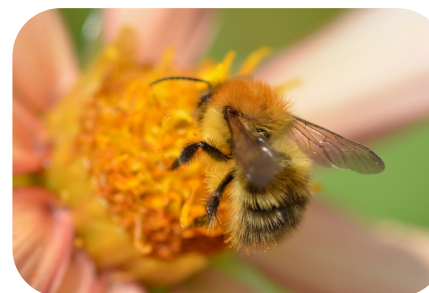


### Bee Aware




Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Learn about the honey bee and its hive. Explore the vital role played by all types bees in plant life cycles and food production, what threatens them and what we can do to help these amazing creatures.



### Insect Life Cycles



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Look at the life cycles of Bees, Butterflies and other insects. Find the homes of some of these creatures and make spaces in your school for them. Find out their needs and how to encourage them in their vital work.






## Seasons and the Garden

Every garden changes with the seasons and jobs need to be done at the right time, knowing the seasonal changes helps you to understand the world around you.



### Seasons in the Woodland




Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Amazing changes happen in nature with each new season. Come along and explore how the flora and fauna react to the changing seasons.

Learn how to identify trees by their fruit, leaves and bark, discover the history of some of our iconic specimens. Travel the World and into the future in our arboretum.

### The Allotment Grow for Success




Suitable for	
PS 1	x
PS 2	✓
PS 3	✓

Plan for success in the school allotment year after year. Learn how to make and use compost. What are the different groups of vegetables and how do you use them in a basic crop rotation system? Deal with pests! Learn good horticultural techniques such as successful seed sowing and seedling transplanting.



What can be recycled, reduced, reused? What can you do to reduce your carbon footprint? What actually is a carbon footprint? What are food miles? How far has your packed lunch travelled?

### Waste Sustainability and Recycling



Suitable for	
PS 1	x
PS 2	✓
PS 3	✓

Explore the importance of recycling. What are the major issues and what can we do to make a difference. We will show you how your decisions do make a difference and that everyday decisions count.

How much CO<sub>2</sub> does your trip generate? Would you be better off cycling, on the bus, in a car or flying?

### Pizzas & Foodmiles



Suitable for	
PS1	✓
PS2	✓
PS3	✓

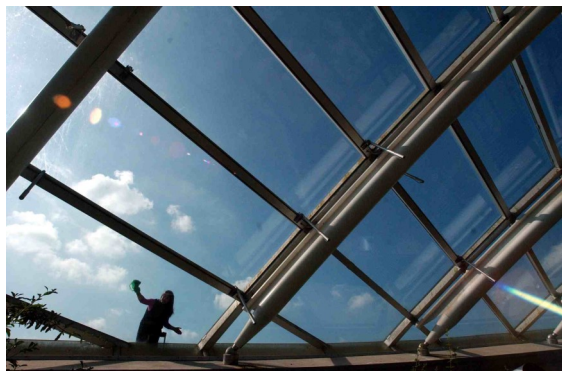
What is in your food?  
Where does it come from?  
What is the impact of what you eat on your carbon footprint?  
Can you get good food locally?  
Enjoy warm Welsh Cakes or freshly made Pizza cooked in our wood fired Pizza ovens for your lunch.



## Environmental Awareness

Environmental Literacy is at the top of the agenda in schools and within wider society. Understanding our

choices and the impact of our actions is vital for us to become informed, literate and knowledgeable citizens.



## Woodlands and Environments

Discover the rich variety of woodlands from tropical to Mediterranean to Welsh native, the creatures that live there and the adaptations of the plants to their environments. Meet the Protea and Banana plants, the vicious Puya and the bizarre Pitcher plants searching for their next meals.



Schools and Learning Activities at the National Botanic Garden of Wales

# Fairtrade



**Suitable for**


Reception	X
KS1	✓
KS2	✓

Using the plant collections of the Garden, this challenging workshop links the producer with the consumer and deals with issues such as inequality, global markets and consumer power. This actively explores the concept of 'Think Global, Act Local'.  
Sustainable Earth 5 & 6

For more information contact  
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# Your Carbon Footprint




**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

How much carbon does a tree contain? How can you find out?  
Make charcoal from a tree of your choice, find out the tree's vital stats and discover how many litres of CO<sub>2</sub> are stored in it—then find your daily carbon footprint.  
Use this information to make choices in your school and home to reduce your CO<sub>2</sub> output.

# Rainforests & Plant Adaptations




**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

Plants have the ability to adapt and thrive in nearly every environment on Earth.  
Explore the plants of Wales, a Tropical rainforest and 5 different Mediterranean areas. Learn how the textures, sizes and shapes of leaves are affected by their environment.  
Meet some of the invertebrates that live in tropical forests.

# Wonderful Woodlands



**Suitable for**

PS 1	✓
PS 2	✓
PS 3	✓

In this introduction to ecology use a Welsh woodland habitat to identify plants, study food chains and look at the similarities and differences between all living things. Explore the trees and learn different ways to identify them based on bark, leaves, fruits and flowers



## Plants and Botany

We are the National Botanic Garden of Wales and our mission statement is

**Education**

**Inspiration**

**Conservation.**

Learning about our plants is core to our mission and vital for your pupils.



National Botanic  
Garden of Wales  
Gardd Fotaneg  
Genedlaethol Cymru

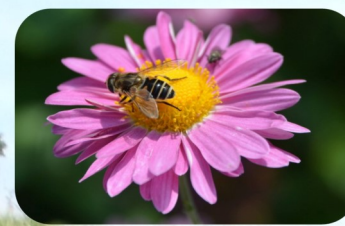
## Sowing & Growing



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Learn how to sow and grow your own plants in a sustainable container. Explore beans to discover what makes them packed full of energy and ready to sprout!

## Life Cycle of a Flowering Plant



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Carry out a flower dissection. Find out about seed dispersal, germination, pollination and fertilisation and what is needed for each of these processes. Which flowers count in 3's and which count in 5's?

## Bee Miles



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

We rely on Bees to pollinate flowers. Bees rely on the flowers for Pollen & Nectar. Nectar gives Bees the energy to fly. Is there the same amount of nectar in a daisy and a dandelion? Quadrat an area, count & ID the flowers then find out how far a bee can fly based upon your data.

## Biodiversity



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

What is biodiversity? Why is it important? How can you measure it? Use scientific methods to measure biodiversity and identify plants and animals. Equipped with these skills, go back to school and increase biodiversity there and at home.



## Products of the Hive



Suitable for	
PS 1	✓
PS 2	✓
PS 3	✓

Get suited up and explore a Bee Hive. Learn about how the hive operates and how we manage these amazing creatures. Use the products created by bees to make candles or lip balms.