



Royal
Botanic Garden
Edinburgh

Web www.rbge.org.uk/education
Email education@rbge.org.uk
Tel 0131 248 2937

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Education programme Primary Schools

About our programmes

School programmes at the Royal Botanic Garden Edinburgh are age-appropriate and link to Curriculum for Excellence Experiences & Outcomes, and equally easily link to English and other curricular requirements.

Programmes are inter-disciplinary, and use our living collections of plants in the garden and the glasshouses to make learning come alive.

Curricular Areas

■ **Sciences:** The science of plants, their biodiversity and conservation, is core to our mission and embodied in our programmes, giving context to curricular frameworks and delivered in relevant and exciting ways suitable for all ages.

■ **Social Studies:** Plants are essential to every society on earth. We explore links between plants and people and their cultures, encouraging understanding about 'other people, societies and beliefs and values', especially focusing on developing awareness of environmental issues.

■ **Health & Wellbeing:** Many of our programmes promote active learning outside, and support good health and personal wellbeing by providing close encounters with and care for nature.

■ **Expressive Arts:** Art programmes, using a variety of media including photography, develop observation, artistic and creative skills whilst encouraging appreciation of nature's beauty, linked to care for the environment

Booking information

Call the Education Office: 0131 248 2937, 9am-5pm;
Email: education@rbge.org.uk

Programme Prices

Half-day £3.50/Full-day £4.50 per pupil

(If the same class does 2 half-day programmes on the same day costs are reduced to £3.00 per pupil per programme.)

Some classes, including Art in the Garden have an extra charge for materials. Teachers & adult helpers are free of charge.

Botanic Cottage by donation.

Minimum charge: Half-day is £40; Full-day £80

Cancellations: within 4 weeks of the date of visit will be subject to a £40 cancellation fee.

General information

Come Prepared: Many programmes take place outdoors. It is essential that all staff and students wear appropriate clothing and footwear.

Risk Assessment: is downloadable from our website: www.rbge.org.uk/education/schools

Lunch Space: Space is available for classes booking morning or full day programmes. Please check availability when booking.

Bespoke Programmes

We can provide bespoke classes on almost any topic. Extra fees apply. Email us at education@rbge.org.uk

We take a holistic approach to active learning outdoors: and through play encourage children to learn about the natural environment. We believe that visiting the Garden can help children's learning in many areas of the curriculum, including health and wellbeing, literacy and numeracy and can encourage good observation skills.

Early Years

Wee Green People

All year round

Come along for a magical opportunity to meet our 'Green Fairy'. You and your class will become her helpers for the day and have fun exploring the Garden. Based in her grotto in the John Hope Gateway, our fairy will send you on your journey, and ask you to return to her to share your experiences.

Grandpa's Garden

Part of the Botanic Cottage Programme – Mondays

Meet Grandpa, our green-fingered puppet, and follow the seasons through his interactive story. Help Grandpa look after his garden with practical hands-on tasks. Discover what vegetables he is growing in his garden and meet some of the creatures that live there too. Children will learn about gardening through activities such as handling real tools (in miniature), sowing seeds, and maybe hunting for the gnomes that also live in Grandpa's Garden.

Note: Suitable for younger ASN groups.

Seasonal

The Great Mincemeat Hunt (P1-7)

1-21-December 2016

Join us on a Christmas journey to find the ingredients that go into our mince pies. Make a healthy version and learn where in the world our seasonal traditions originate. Take away the fruits of your labours! There is an additional £25 charge per class for materials.

Grow Your Own (P2-7)

Part of the Botanic Cottage Programme – Wednesdays

All things have a season in the Garden. Classes may help with practical tasks

in our veg plot and learn what plants need in order to grow. Sow seeds in the Potting Shed to take back to school and look after them. Explore the wormery to see what happens to waste food and weeds and discover how the worms and other creatures are an important part of the Garden.

Note: This programme accommodates all CfE levels and will be adapted to be age appropriate.

Dig for Victory (P5-7)

Available September 20-23 2016; March 6-10 2017
(Part of the Botanic Cottage Programme)

Help us 'Dig for Victory' in our veg plots following in the footsteps of the gardeners of the past. Sow seeds and nurture them back at school. Join the Home Front for a day and find out how food was just as important in winning the war as weapons. Learn about healthy eating during the war and the seasonality of veg in Scotland.

P1-3

Half-day programmes

Panda's Journey

September - October; April - June

Explore the Garden following in the footsteps of the giant panda. What does the panda need to survive and can we find these things at RBGE? This programme will introduce children to a simple food chain and how living things in the environment depend on each other.

Plants We Use

All year round

What plants do we use every day and what do we use them for? From the common to the exotic, uses include food, clothing and shelter, but do you know

where the plants come from or which parts of the plant are used? Discover how plants benefit our society and join us on a global journey of discovery to explore the links between plants, people and the environment.

Rainforest Quest

September to end March only

This quest will take children on a journey into the tropical rainforest to help us solve a puzzle while finding and learning about key rainforest plants.

Secrets of Trees

September - October; April-June

Follow our journey through the parts of trees from roots to leaves to seeds to discover their secrets. Explore using your senses and find out how trees are important to our lives.

Senses

All year round

Take an amazing sensory journey through the natural world. Be guided by your senses and explore your environment in astounding and unexpected ways.

Full-day Programmes

Teddy Bears' Picnic

Summer term only

Edward Bear invites your pupils and their teddies on a magical adventure, to discover how living things obtain the necessities of life whilst learning about the wonders of nature.

Art in the Garden

All year round

Join us for a practical workshop inspired by the world of plants. Explore the diversity of the 'green kingdom' and transform your discoveries into art through the medium of your choice:

- Printing
- Felting

There is a £25.00 charge per class for art materials.

P4-7 Half-day programmes

Biodiversity and Inheritance:

All year round

A practical and fun look at what biodiversity is, and investigating how it develops through the mechanics of inheritance. Links to The Life of Plants.

Green Kingdom

All year round

Become a botanist for the day and use some of the tools of the trade to classify plants into groups. Appreciate the diversity of plants in the world through exploration of different environments, and learn ways to record your findings.

Hot and Cold

All year round

Climate affects every living thing. Journey with us to investigate how plants have adapted to flourish in different habitats, exploring our plant collection from the tropical rainforest to the desert and on to harsh mountain conditions. Record your findings in your own field notebook.

The Life of Plants

All year round

Focus on the world of plants and their amazing lifecycles. Discover the secrets of seeds, the power of pollination, and the interconnectedness in life.

Plants We Use

All year round

What plants do we use every day and what do we use them for? From the common to the exotic, uses include food, clothing and shelter, but do you know where the plants come from or which parts of the plant are used? Discover how plants benefit our society and join us on a global journey of discovery to explore the links between plants, people and the environment.

Rainforest Adventure

September - March

Join us on an expedition through the richest and most diverse ecosystem on Earth. Experience the sights and smells of these precious environments and learn secrets of survival of their plants and people.

Maths with Geocaching

All year round

On this programme pupils use GPS units to follow a Maths trail around the Garden, solving problems on their way, to end up back at home base.

Scottish Trees

September - October, April - June

Learn how to recognize our native Scottish trees. Discover stories that surround them and their traditional uses. Explore the biodiversity of Scotland's native woodlands and the important role they play in our lives.

Full-day Programmes

Art in the Garden

All year round

This practical workshop inspired by the world of plants can be adapted to cover all curricular areas. Explore the diversity of the 'green kingdom' and transform your discoveries into art through the medium of your choice:

- Printing
- Felting
- Willow-withy Sculpture
- Batik

Please contact us to discuss your specific requirements.

There is a £25.00 charge per class for art materials.

Photographing Plants

All year round

This is an inter-disciplinary programme linking Expressive Arts with Science. Students research their chosen topic using digital photography to record images at the Garden, and their photos can be used back at school to produce quality resources to demonstrate their specialist subject knowledge to others or create an enterprise product.

There is a £25.00 charge per class for materials.



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Education programme Secondary Schools

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Taxonomy for Advanced Higher Biology

A full-day conference for Advanced Higher Biology Students, offering lectures and workshops in taxonomy and classification with the Garden's expert science research staff. Relevant and interactive.

Contact us for more details January 29th 2017. Contact education@rbge.org.uk for details and to book.

2016/17 Programmes for secondary classes are designed to run for approximately 2 hours. To book for a full-day visit, please choose any 2 programmes.

Level suitability of a topic is suggested below, but can be modified if requested.

We can work with you to create a class or workshop to meet your requirements.

Extra fees may apply.

Half-day

Plant Investigation Workshop

Biology; Suitable for National 4/5

This practical indoor workshop covers many aspects of plants in the curriculum, including transport in plants, reproduction and health, and the science of plant parts. It aims to encourage students to explore ideas about plants for themselves.

Biodiversity: Race Against Time

Biology, Sciences, Social Studies; Suitable for National 4/5

Climate Change is an issue for our society: more plants are becoming endangered. Help us decide which plants we should conserve. A tour through the glasshouses introduces students to the plants, their uses and why they're important before a decision must be made about which ones to save. Explore plant biodiversity and learn about the challenges our fragile Earth faces.

Ecology Challenge

Biology; Suitable for National 3/4/5

In this Outdoor inquiry-based activity, students are asked to establish baseline information about a population of plant X and to determine how to monitor it. Using only equipment provided to survey the area, this workshop is about developing a real understanding of fieldwork sampling.

Chemistry: Pharmacy-Plants to Products

Chemistry; Suitable for National 4/5

This is an experiential programme using the Garden to learn more about "products derived from plants which have enhanced everyday life". Pupils build on their knowledge through observation of actual plants, discussion and debate and make their own judgements about the importance of plant-based products.

Plant Adaptation

Biology; Suitable for National 3/4/5

What special features allow plants to live in a particular environment? Examine

different plant adaptations and explore how they allow life in different conditions and climatic environments.

Lichens: Making the invisible visible (An air pollution survey)

Environmental Science; Suitable for Nat 4/5

Find out what lichens actually are and how these mysterious organisms are an indicator for air pollution. This workshop examines lichens and introduces their use as a survey tool.

Full-day

Art in the Garden

Art + Link subject; Suitable for any Secondary Level; There is a £25.00 charge per class for art materials

This practical workshop, inspired by the world of plants, can be adapted to cover all curricular areas. Explore the diversity of the 'green kingdom' and transform your discoveries into art through the medium of your choice: Printing, Felting, Willow-wither Sculpture, Batik. Please contact us to discuss your specific requirements.

Plant Photography

Suitable for Nat 3/4/5; Expressive Arts; Links to Enterprise, Sciences, Technology, Social Sciences

Use digital photography to record images at the Garden to support your chosen topic. Students' images can be used back at school to produce high quality resources such as posters or calendars- limited only by their imagination and ingenuity!

Plant Photography for Higher

Higher Photography; Suitable for National 5

Working with our plant collections in the Garden and glasshouses, this is an opportunity to work with the Botanic's professional photographer in-studio to do macro work, taking inspiration from well-known artists such as Karl Blaufeldt and others.



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Education programme

Continuing Professional Development

STEM @the garden

Deserts

Fri 2 Sept 2016, 13:00–15:30

This workshop considers how to use a desert study to cover many aspects of CfE and explores environmental issues around desertification.

Earth in Space

Fri 23 Sept 2016, 13:00–15:30

Planet Earth is a traveller in space as it tilts, spins and orbits our sun. This workshop shows how to model Earth's travels, which give day and night and the seasons, and investigates its special properties: size, temperatures and surface composition that allow it to support life like no other planet yet observed. Adaptable for all primary levels.

Biodiversity and Inheritance

Wed 28 Sept 2016, 16:00–18:30

A practical and fun look at biodiversity, investigating how it develops through the mechanics of inheritance.

Is Anybody Out There?

Fri 30 Sept 2016, 13:00–15:30

News from Space: This workshop investigates this age-old question and considers its possibilities and the science behind our attempts to contact other civilisations, as well as our efforts to seek out other potential planets suitable for supporting human populations. Suitable for upper primary levels.

Use the News

Fri 7 Oct 2016, 13:00–15:30

Newspapers are important for lifelong learning about the world we live in, what is happening in it, and how it is being changed- particularly by science. To be science literate is vital for all of today's and tomorrow's citizens. This workshop uses newspaper and other media to explore new ways to teach children to extend literacy skills to scientific inquiry skills.

Teacher CPD/ CLPL

The Royal Botanic Garden Edinburgh offers a wide range of Professional Development training courses for teachers, technicians and Early Years practitioners. All our courses are practical and experiential and are linked to the Curriculum for Excellence.

CPD courses are offered by the Edinburgh team for individual teacher bookings or as a whole school inservice, and some are available as outreach for school cluster groups. Please email education@rbge.org.uk if you are interested in outreach CPD.

Programme prices: full day: £40, part day: £20. Botanic Cottage by donation.

To book a place on one of our in-garden CPD courses complete the Booking Enquiry form on: www.rbge.org.uk/cpdbooking. Alternatively you can book by calling 0131 248 2937 (select option 2 for Schools).

Rainforest

Fri 14 Oct 2016, 13:00–15:30

Explore our extensive glasshouse collections to discover the characteristics of rainforests and how, even now as their area diminishes rapidly, they still support more than half the world's biodiversity in plants (and animals).

Forces & Friction (I)

Fri 11 Nov 2016, 13:00–15:30

Hands-on activities to encourage exploration of forces such as pushes and pulls, that cause things to move or change shape, and the knock-on effects this has.

Forces 2: Flight & Air Resistance

Fri 18 Nov 2016, 13:00–15:30

More hands-on activities to investigate forces as air pressure, air resistance and how they apply to the wonders of flying.

Water Science

Fri 25 Nov 2016, 13:00–15:30

"No water, no life. No blue. No green." Water is all around us and inside us. We take water for granted (except when we don't have it!). Yet water has some weird qualities that make it the world's most interesting and important matter. These active science, maths and technology activities explore this extraordinary substance and why it is the foundation of all life.

Food: Feast or Famine?

Fri 20 Jan 2017, 13:00–15:30

Will ours be a future of feast or of famine? Through practical activities, adaptable for all levels, this workshop explores the idea of Food Security and how a dependable supply of food can be secured for all.

Science On Your Plate

Fri 24 Feb 2017, 13:00–15:30

Find out more about the science concepts that we can learn from examining everyday fruit and vegetables using Inquiry Based Science Education (IBSE) techniques. Do you really know which part of the plant you eat? Come and explore questions like this and get ideas of some easy plant growing projects.

Bubble-ology

Wed 1 Mar 2017, 16:00–18:30

This series of imaginative experiments and table-top activities with soap bubbles introduces important concepts of science, technology and maths through the enjoyable exploration of bubble shapes, buoyancy, surface tension and iridescence. Have fun, get messy and learn together with bubbles! For all ages.

Maths in Nature I and II (a 2-day course)

Fri 3 Mar 2017, 13:00–15:30

Wed 29 Mar 2017, 16:00–18:30

This 2-day course explores mathematics in the context of the garden and nature.

We will develop skills in outdoor learning and increase teacher confidence in using mathematical concepts in different ways to help make maths relevant to our everyday lives.

Part I covers Number, Operations & Algebra, Measurement

Part II covers Geometry and Pattern; Data Analysis

The workshop will clearly link mathematical concepts to real life activities and aim to stress the relevance and importance of maths to everyday activities.

Plant Propagation for Technicians

Thurs 4 May 2017, 11:00–16:00

This practical workshop teaches different plant propagation techniques including cuttings and micro-propagation. Increase knowledge of glasshouse management and growing plants to support CfE in your settings with behind the scenes tours.

Early Years

Active Learning Outdoors

Autumn Wed 5 Oct 2016, 16:00–18:30

Winter Fri 27 Jan 2017, 13:00–15:30

Spring Fri 3 Feb 2017, 13:00–15:30

Summer Fri 12 May 2016, 13:00–15:30

(A series of 4 workshops which can be done individually or as a group). Each seasonal workshop contains interdisciplinary activities which can be used at the Botanic Garden or other locations. Many suggested activities support outdoor learning. This is a participatory workshop so suitable clothes/shoes for outdoor wear are essential.

Wee Wonders of the World

Fri 21 Apr 2017, 13:00–15:30

Discover the unexpected pleasures, the beauty and the importance of our natural surroundings. Learn respect for the environment and engage the imagination through appealing activities for children using simple investigative skills.

Expressive arts

Christmas (Art)

Fri 28 Oct 2016, 10:15–13:15

Celebrate the festive season by producing pieces of work to take away with you which make lovely gifts or are great for Enterprise.

Looking to Spring (Art)

Fri 3 Feb 2017, 10:15–13:15

Celebrate spring by using different techniques to produce seasonal pieces of work to take away with you.

Gardening

Part of the Botanic Cottage Programme:

Get Ready to Grow

30 Sept 2016, 13:00–15:30

Plan ideas for activities and learn new techniques and activities for your classroom or School Gardening club all year round.

Grandpa's Garden

Fri 7 Oct 2016, 13:00–15:30

An introduction to our new programme which looks at the seasonal changes and jobs we need to do in Grandpa's garden. We will discuss how learning from the programme can be extended back in your own setting, exploring pre- and post visit activities and ways of taking the outdoors back inside to continue the learning.

Gardening with Children

Fri 12 May 2017, 13:00–15:30

This workshop covers practical techniques for gardening in small spaces with children. We offer support and ideas for eco schools and a chance to get inspiration from our own children's vegetable garden.