



ENGLISH HERITAGE
EDUCATION

KS1-2

KS3

OUTDOOR LEARNING KIT

Belsay Hall, Castle and Gardens

This kit helps teachers plan a visit to the gardens at Belsay. Take your learning outdoors in 30 acres of outstanding gardens, offering fantastic cross-curricular teaching and learning opportunities. Use these resources before, during and after your visit to help students get the most out of their outdoor learning experience.



GET IN TOUCH WITH OUR EDUCATION BOOKINGS TEAM:

- ☎ 0370 333 0606
- ✉ bookeducation@english-heritage.org.uk
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Thanks to
National Lottery players

Step into England's story

WELCOME

This Outdoor Learning Kit has been designed for teachers and group leaders to support a free self-led visit to Belsay Gardens. It includes a variety of materials suited to teaching a wide range of subjects and key stages, with practical information, activities for use in the gardens and ideas to support follow-up learning.

We know that each class and study group is different, so we have collated our resources into one kit allowing you to decide which materials are best suited to your needs. Please use the contents page, which has been colour-coded to help you easily locate what you need and view individual sections. All of our activities have clear guidance on the intended use for study so you can adapt them for your desired learning outcomes.

In addition to the resources and activities found here, you can download the Teachers' Kit from the **Schools page** for a historical overview of the whole site, plus activities relating to the hall and castle.

We have also created a Sensory Trail, to improve access for students with additional needs, which you can download from the **Schools page**.

We hope you enjoy your visit and find this Outdoor Learning Kit useful. If you have any queries please don't hesitate to get in touch with a member of our team either via bookeducation@english-heritage.org.uk or on 0370 333 0606.

English Heritage Learning Team

ICON KEY

The icons below will help you quickly identify the types of activities and information presented.



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INTRODUCTION

Practical information to help plan a visit to Belsay Gardens.

BELSAY HALL, CASTLE AND GARDENS

TOP TIPS FOR OUTDOOR LEARNING

FREE PLANNING VISIT

- Belsay has 30 acres of outdoor space ideal for cross-curricular learning.
- To help you plan your trip, we can offer you a free advance visit. Simply print off your visit permit and take it along to the site; your permit allows you one-time free family entry. Permit entry is not accepted on event days.

RISK ASSESSMENT

- All group leaders need to complete their own risk assessment before a visit.
- We encourage you to explore the site with your senses; looking, sniffing and touching. But please do not lick or pick anything. This keeps you safe and protects the gardens.
- Please be aware of plants with toxic sap such as euphorbia and hogweed and do not sniff things like bracken, which has toxic spores in August–September.
- Please refrain from touching things like yew leaves if you are working with students who will struggle to avoid hand to mouth contact before reaching hand-washing facilities.

CLOTHING

- A walk through the Belsay gardens will take you through the formal terraces, the quarry gardens and around the castle grounds. While most of this walk has gravelled pathways, we recommend your group wears sturdy shoes or wellies as the pathways can get wet and sometimes muddy.
- As you will be spending a lot of time outdoors, don't forget to layer up your clothes, and remember a sun hat (or a woolly hat in the autumn and winter) as well as a waterproof coat.

OTHER VISITORS AND EVENTS

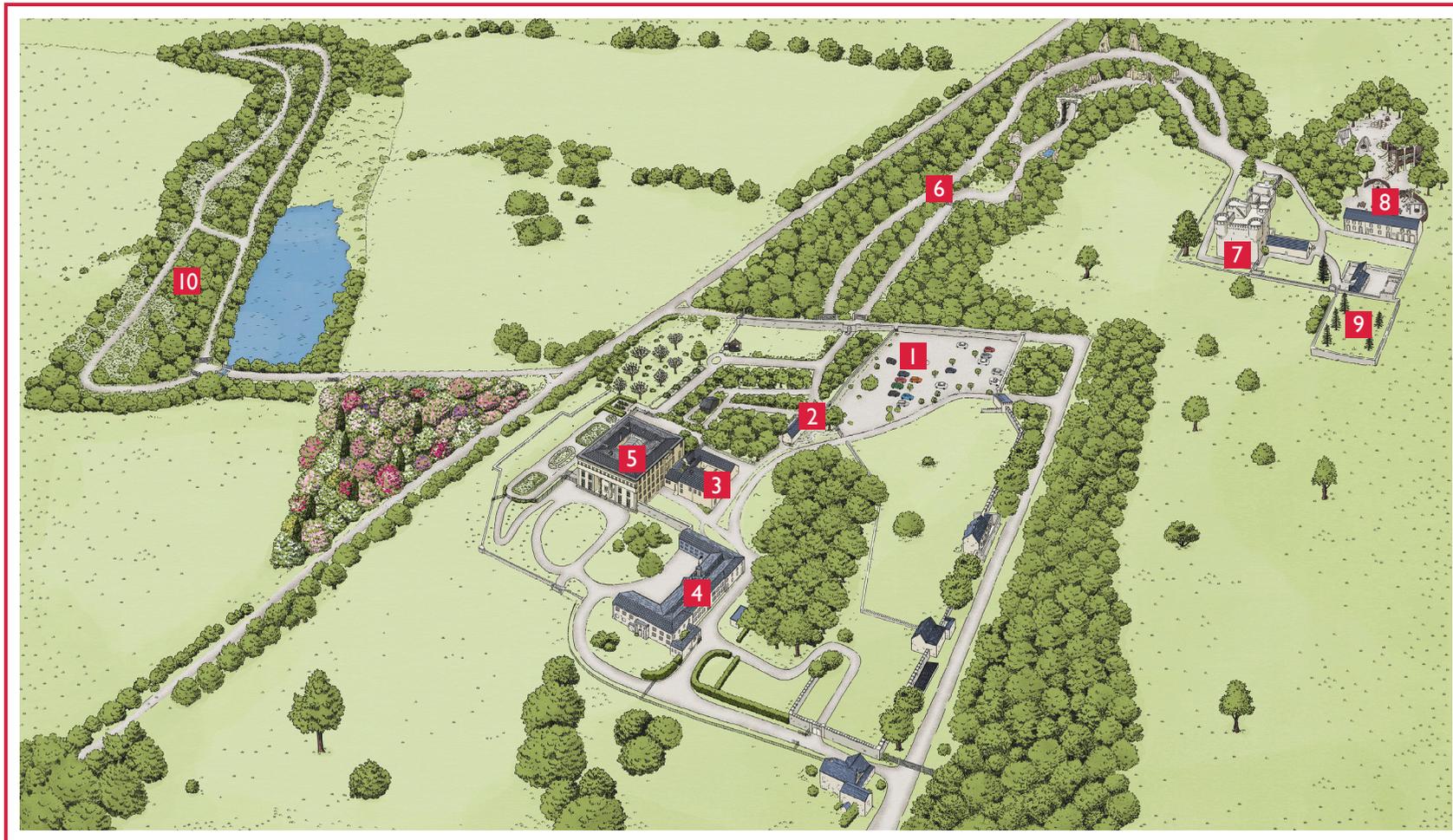
- Please be aware of other visitors as you are moving around the site and allow them to enjoy the different areas as well.
- We often have events and tours happening during the week that may take place when you are here.
- We are a dog friendly site so you may come across other visitors with their pets as well as guide dogs while out and about.

PROTECTING THE HISTORIC GARDENS

- Please help us protect Belsay's outdoor spaces by asking students to respect the gardens and every living thing found there.
- To lessen the impact on the historic gardens, it's a good idea to visit the different areas in smaller groups where possible. This will also give your groups plenty of time to explore the different sights, sounds and smells that the outdoor spaces have to offer.

BELSAY HALL, CASTLE AND GARDENS

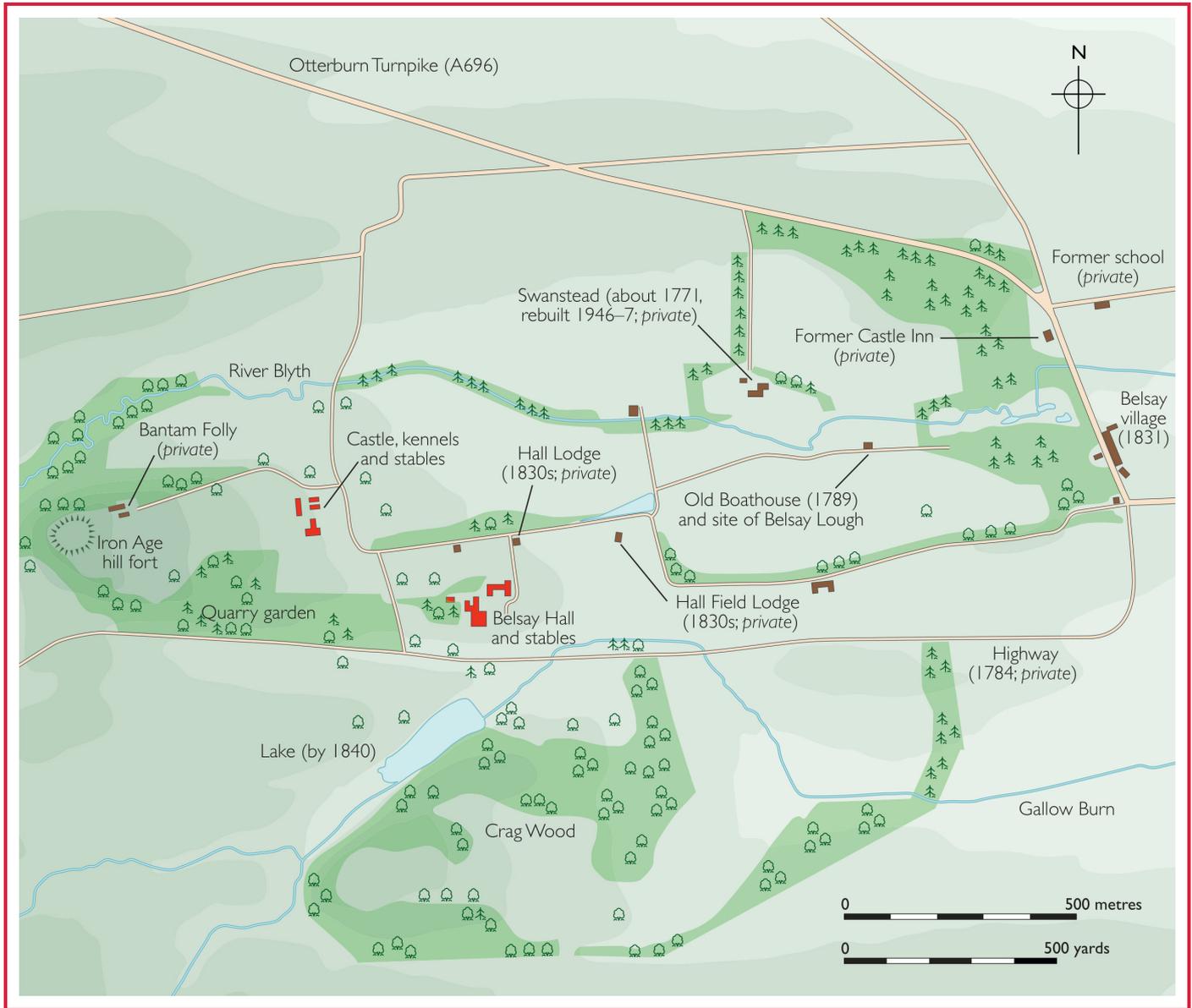
SITE MAP



KEY

- 1** CAR PARK
- 2** TOILETS
- 3** CAFE (NEAR HALL)
- 4** TICKETS/SHOP
- 5** HALL
- 6** QUARRY GARDEN
- 7** CASTLE
- 8** CAFE/TOILETS/PLAY AREA
- 9** LEARNING SPACE
- 10** CRAG WOOD

BELSAY HALL, CASTLE AND GARDENS ESTATE MAP





PRE-VISIT

Information and activities you can use in the classroom before your visit.

HISTORICAL INFORMATION

DISCOVER THE STORY OF BELSAY GARDENS

Below is a short history of Belsay Gardens. Use this information to learn how the site has changed over time. You'll find the definitions of the key words in the Glossary.

BELSAY'S HISTORIC LANDSCAPE

Belsay Park lies between two streams: the river Blyth to the north and the Gallow Burn to the south. To the west is a prehistoric **hillfort** and to the east is Belsay village – moved from its original position to this location in 1831 by Sir Charles Monck, to make way for his garden plans.

Belsay Castle was at the centre of Belsay's landscape from the 1300s to the 1800s. By the late 1600s there was a formal walled garden to the south and east of the castle. In the 1740s or 1750s, the grounds were landscaped in the style of Capability Brown, including the creation of Bantam Folly.

At the beginning of the 1880s Sir Charles Monck created Belsay Hall and transformed the landscape into the **Picturesque** layout you see today. He created the **terraces** and the **quarry** garden, added plants and trees, extended roads, moved the original 'Belsay Town' to the east, and dammed the Gallow Burn to create an artificial lake.

Sir Charles' grandson, Sir Arthur Middleton, created the winter garden and yew garden, and added an extra section to the quarry, but mostly focused on adding to his grandfather's original design with a wider range of **exotic plants**.

Sir Charles and Sir Arthur both kept detailed records of their gardening activities, giving us a fascinating insight into Belsay's historic gardens.



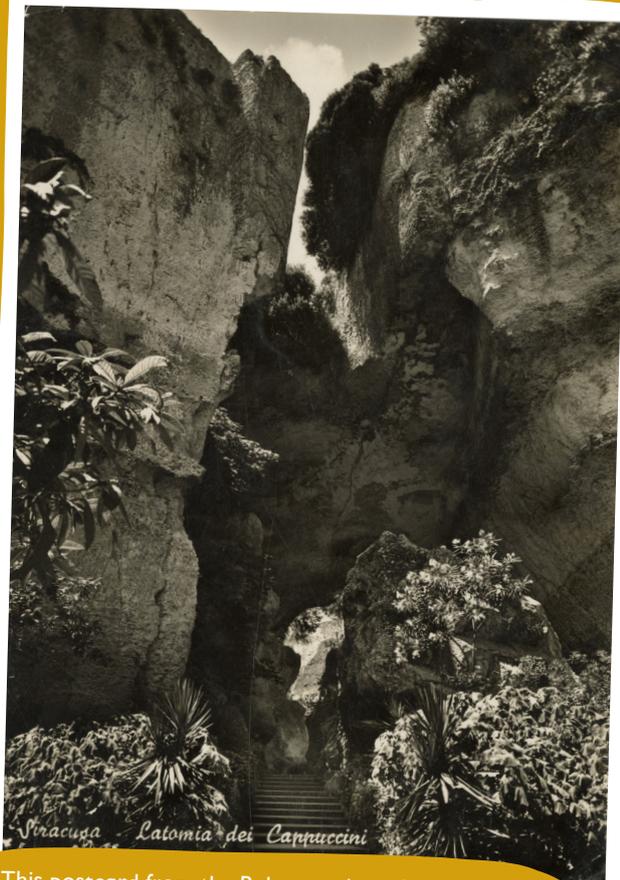
A map of the Belsay estate and surrounding areas as they are laid out today. Find a full-page version on page 8.

GROWING A GLOBAL GARDEN

When the Picturesque garden was first created, Sir Charles Monck introduced a limited number of plant **species**, which included a few **native** trees. By 1852 he had expanded the planting to include exotic plants, wildflowers and native **ferns**.

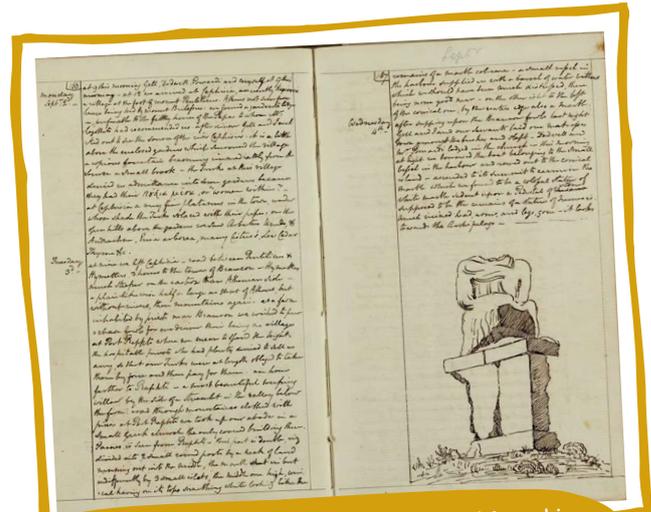
Sir Charles travelled a lot throughout his life, both in Britain and overseas. His travel journals provide revealing insights into his character and the interests that inspired the design of the house and gardens at Belsay.

The quarry garden design was influenced by Sir Charles' travels around the **Mediterranean** in 1831. It includes the towering rock arch, directly influenced by the ancient quarries at Syracuse in Sicily.



Syracusa Latomia dei Cappuccini

This postcard from the Belsay archive shows the ancient quarries at Syracuse, Sicily. © Published with kind permission of Northumberland Archives and the Belsay Estate



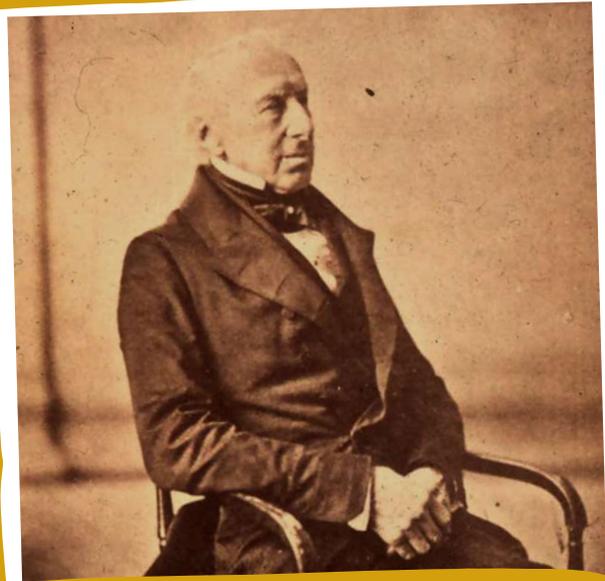
Pages from Sir Charles Monck's journal from his tour of Germany, Venice and Greece, 1804–6. © Published with kind permission of Northumberland Archives and the Belsay Estate

In the early 1900s Sir Charles' grandson, Sir Arthur Middleton, planted new trees, **shrubs**, **climbers** and **rhododendrons**. Many of the trees added by Sir Arthur are **imports** from abroad and are very early examples of these plants grown in Britain. This changed the focus for the quarry from the rockwork to plants.

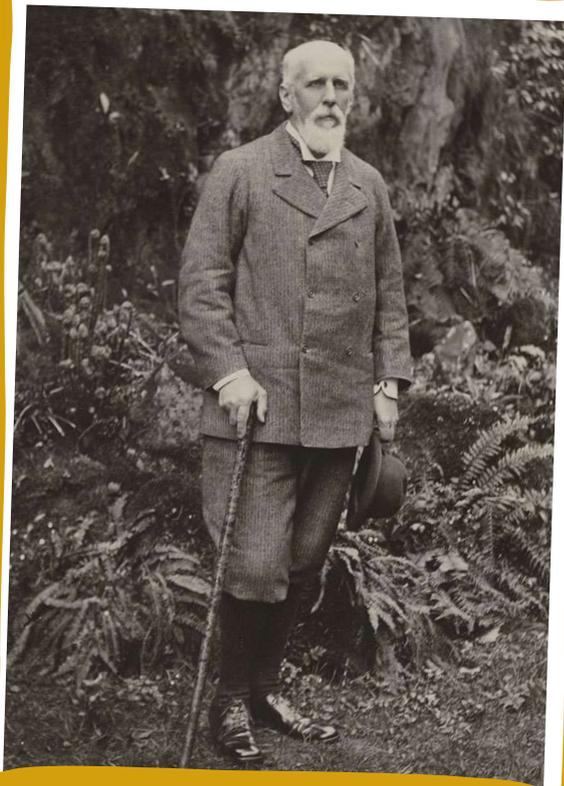
GARDEN DESIGNERS PAST AND PRESENT

Sir Charles Monck

Sir Charles Monck designed the impressive views to and from the terraces in the early 1800s. He laid out a formal flower garden and terraces to enjoy with his family and friends staying at the hall. They contrasted dramatically with the wild-looking landscape he shaped beyond. This type of landscape, in the style known as the Picturesque, was fashionable in the early 1800s, though very few such landscapes remain today.



A photo of Sir Charles Monck in 1865, at the age of 86.
© Published with kind permission of Northumberland Archives and the Belsay Estate



Sir Arthur Middleton standing in the quarry garden in about 1900. © Published with kind permission of Northumberland Archives and the Belsay Estate

Sir Arthur Middleton

Sir Arthur Middleton inherited Belsay in 1867. He kept the structure of the formal garden but extended and added to it. The winter garden was created in the 1880s. It was planted with low **evergreens**, tree **heathers**, **conifers** and other winter flowering plants, set around a grass **croquet** lawn and tennis court.

In the early 1900s collecting newly imported plants was fashionable, and Sir Arthur joined this trend, planting new species at Belsay that had only recently been introduced to Britain.

Lady Mary Monck

Lady Mary Monck (1785–1861), Sir Charles' second wife, was an artist specialising in painting Picturesque scenes, as well as a keen gardener who worked with her husband on the design of Belsay's garden.

In the early 1800s Crag Wood was planted with conifers newly introduced to England, Scots pines and other native trees. The original paths through the wood were planned by Lady Mary.



Mary was a talented painter and gardener. She probably drew this view of Belsay Hall in the 1830s. © Published with kind permission of Northumberland Archives and the Belsay Estate



Adding plants to the terraces as part of the Belsay Awakes project.

Dan Pearson

Belsay's grounds and gardens were rejuvenated as part of the 'Belsay Awakes' National Lottery Heritage Fund project, completed in 2023. The famous garden designer Dan Pearson created a new plant scheme in the formal gardens, inspired by the plants and designs of the past. A range of plants were added that flower over a longer period, creating more colour throughout the year. Around the grounds, **invasive** species were removed, trails and information were added and **habitats** for wildlife and native plants were enhanced.

GLOSSARY

TRICKY TERMS AND
WHAT THEY MEAN

Below is a list of words you might come across while exploring Belsay. Use this Glossary to find out what they mean.

amphibian – small four-legged vertebrates (creatures with a backbone) that need water, or a moist environment, to survive

annual – a plant that completes its life cycle, from germination to producing seeds, within one growing season (then dies!)

arachnid – the name given to a group of creatures with eight legs and a body made of two parts

bark – the hard outer covering of a tree or shrub

biennial – a flowering plant that completes its life cycle in two growing seasons

branch – the part of a tree that sticks out from the trunk, on which the leaves and fruit grow

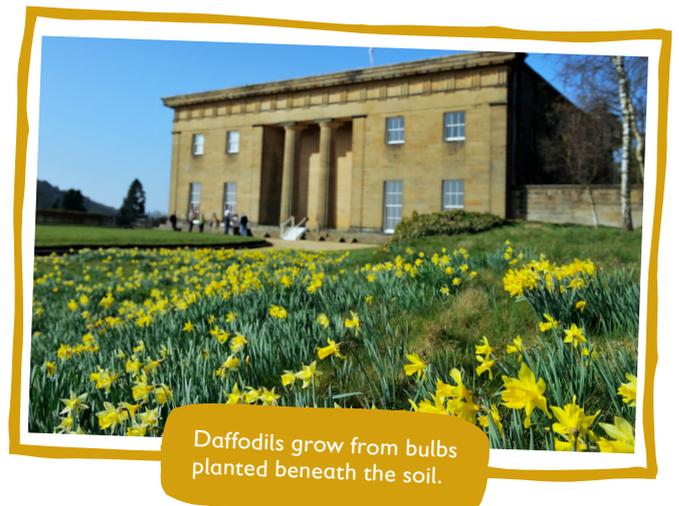
bulbs – underground masses of food storage from which plants grow. Bulbs are planted under the soil, and plants grow from them at certain times of year.

climbers – plants that cling to walls and fences, using special stems that help them to grip as they grow

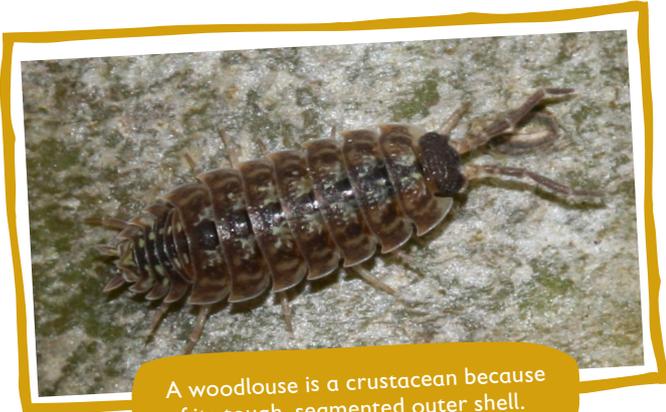
cocoon – a covering or case made by some creatures to protect themselves or their young as they develop into adults

conifers – plants that bear cones and have evergreen needle-like leaves

croquet – a game played on a lawn, in which wooden balls are knocked through square-shaped hoops, using mallets



crustacean – the name given to a group of creatures with a tough armour-like outer shell, a body made of segments, and limbs that have joints



A woodlouse is a crustacean because of its tough, segmented outer shell.

deciduous – used to describe a plant that drops its leaves at a certain point in the year, usually autumn

estate – an area of land or property

evergreens – plants that keep their leaves and stay green all through the year

exoskeleton – a tough outer shell

exotic plants – plants from a faraway country, if you live in the UK

ferns – plants with long stems, green leaves that look like feathers, and no flowers

fungi – a group of simple organisms (living things) that are not plants, animals or bacteria e.g. mushrooms and mould. They feed on organic matter and can be found everywhere: in soil, lakes, rivers and trees.



Fungi growing on a rotting log. Photo taken by Imogen Robinson, an A-level photography student.

gastropod – the name given to a group of creatures with soft flat-based bodies and a muscly 'foot' which they use to move around

habitat – the natural home of a plant, animal or other living thing

harvest – the act of cutting and collecting crops, fruit and vegetables

heathers – spreading evergreen shrubs with upright stems, usually with tiny pink, purple or white bell-shaped flowers



Pink and white heathers flowering at Belsay.

hibernate – the clever way some animals survive the cold winter weather by finding a safe place to curl up until warmer weather arrives. During hibernation, animals go into a deep sleep, barely breathe and allow their body temperatures to drop.

hillfort – a fort built on a hill, often enclosed by a system of defensive banks and ditches

honeydew – the sugary waste secreted by aphids, which some butterflies feed on

imports – things brought into a country from another

invasive – plants and animals that spread out of control

invertebrate – a creature with no backbone. Some of these have tough skeletons on the outside of their bodies, called exoskeletons.

leaf – the flat part of a plant which grows from a stem or branch. Leaves help the plant absorb sunlight.



Mediterranean – the countries bordering the Mediterranean sea

metamorphosis – the process by which a young plant or animal changes into its adult form e.g. caterpillars become butterflies

native – a plant that has always grown in England, and wasn't brought here from somewhere else

nectar – the sweet, sugary liquid made by flowers

nutrients – ingredients that are needed for healthy growth. Some soils are rich in nutrients but others, like sandy soils, are not.

perennial – a plant which lives for more than two years (in contrast to annual and biennial)

photosynthesis – the process by which plants turn carbon dioxide, water and sunlight into energy so that they can grow

Picturesque – a style of landscape or garden, especially in the late 1700s and early

1800s, that featured spectacular scenery which was broken, irregular and varied, with a sense of wildness in the planting

pollen – a fine powder, often yellow, which the male part of a plant produces

pollinator – an insect which lands on plants, picking up pollen and moving it to other plants. This helps the pollen (from the male part of the plant) transfer to the female part of the plant, aiding reproduction.



predator – an animal that hunts, kills and eats other animals

prey – an animal that is hunted, killed and eaten by other animals

quarry – a large, deep pit from which a large amount of stone has been removed for building

rhododendrons – medium to large flowering shrubs, of which there are over one thousand different species

root – the part of the plant which attaches it to the ground, travelling into the soil to find water and nutrients, helping the plant grow

sap – the sticky fluid which circulates around a plant. You might see this sticky substance coming out of tree trunks or plant stems.

shrubs – a woody plant which is smaller than a tree and has several small branches sticking out from a stem near the ground

species – a kind, sort or set of plants (or animals) in which the members have similar characteristics to each other and can breed with each other

stem – the main body or stalk of a plant, from which the other parts of the plant (such as leaves and flowers) grow

terraces – an area of the garden which has been designed to have lawns and flower beds on different levels, like very broad steps

trunk – the main woody stem of a tree. The trunk gets wider every year so you can tell how old the tree is by the size of its trunk.



Newly planted flower beds on the terraces at Belsay in 2021.



SPOTTER SHEETS

Visual checklists that can be used as stand-alone resources or alongside the garden activities provided in this kit.

With thanks to volunteer photographer Nigel Hooper for capturing many of these photos.

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the trees.

MONKEY PUZZLE



This tree's name apparently comes from the 1830s when a lawyer said about the spiralling pattern of the spiny branches, 'it would be a puzzle even for a monkey'.

COMMON BEECH



These native deciduous trees have green leaves in summer. In autumn, they keep their leaves for a while after they turn brown.

GIANT REDWOOD



The giant redwood was first introduced to Britain from California in 1853 by William Lobb. It was first recorded at Belsay by Sir Charles Monck in 1865.

DOUGLAS FIR



This tree, from North America, was planted in about 1830 from one of the first seedlings brought to this country.

ENGLISH HERITAGE
EDUCATION

TERRIFIC TREES

YEAR-ROUND
SPOTTER SHEET

KSI-2

KS3

HANDKERCHIEF TREE



This tree, from China, was first recorded at Belsay in 1923. In late spring you can see floaty white bracts hanging down like handkerchiefs.

KIWI TREE



This exotic tree, native to China, was not grown in Britain until 1900. At Belsay, it climbs up the quarry walls. It bears fruit in autumn.

SCOTS PINE



This is the only pine tree native to Britain. It was planted at Belsay by Sir Charles Monck in 1852. They grow along the top of the quarry walls, creating a shelter belt.

DID YOU KNOW?

Some of these trees are deciduous, meaning they drop their leaves in autumn and regrow them in spring. Others are evergreens; they keep their leaves all year round.

These birds have made the gardens their home so please **be kind** to them!

CHAFFINCH



Most finches are seed-eaters, but in spring chaffinches also eat insects, which they can even catch while flying.

ROBIN



These sing all year round to keep other robins off their patch. If another robin dares to come too close, they will fight.

BLACKBIRD



Lots of our trees and shrubs have berries on them in autumn, which blackbirds love to eat, along with worms and insects.

ENGLISH HERITAGE
EDUCATION

BRILLIANT BIRDS

YEAR-ROUND
SPOTTER SHEET

KSI-2

KS3

GOLDFINCH



These use their beaks like tweezers to get seeds out of plants. A group of goldfinches is called a 'charm' ... how charming!

GREATER SPOTTED
WOODPECKER



In spring, these use trees to make a fast drumming noise with their beaks. They aren't drilling holes; they are sending signals to other birds.

WREN



These small birds sing very loudly for their size! They don't usually like company, but on cold nights, they sleep snuggled up in gangs.

DID YOU KNOW?

Birds have hollow bones which make them lighter so it's easier to fly.

These creatures have made the gardens their home so please **be kind** to them!

GARDEN SNAIL



A snail is a gastropod, meaning it has a soft body with a flat base which it uses to move around.

EARTHWORM



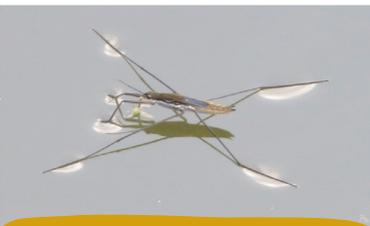
Worms will eat just about anything as long as it's dead. They have no eyes and they breathe through their skin.

SPIDER



Spiders are arachnids, meaning they have eight legs and a body made of two parts.

POND SKATER



These insects can walk on water! They are predators that feed on smaller insects by detecting vibrations on the water's surface.

ENGLISH HERITAGE
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CRAWLING MINIBEASTS

YEAR-ROUND
SPOTTER SHEET

KSI-2

CATERPILLAR



Caterpillars create cocoons around themselves and eventually come out as butterflies or moths. This is called metamorphosis.

WOODLOUSE



A woodlouse is a crustacean, meaning it has a tough outer shell and is related to lobsters and crabs.

CENTIPEDE



Most centipedes don't actually have 100 legs. They have two legs per body segment and they all grow to different lengths.

DID YOU KNOW?

These creatures are all invertebrates, meaning they don't have backbones.

These creatures have made the gardens their home so please **be kind** to them!

BUTTERFLY



The 'eye spots' on this peacock butterfly's colourful wings look like peacock feathers. It is one of many species that can be seen at Belsay in summer.

MOTH



These are the less-colourful cousins of butterflies and are most active at night.

CRANE FLY



Also known as a daddy-long-legs, these look like large mosquitos. Some of their legs sometimes fall off, but they survive by learning to walk differently.

HOVERFLY



Although sometimes confused with wasps, these insects are harmless flies and can't sting you.

ENGLISH HERITAGE
EDUCATION

FLYING MINIBEASTS

YEAR-ROUND
SPOTTER SHEET

KSI-2

BUMBLEBEE



In their quest for pollen, these fuzzy bees scent mark each flower they visit so they don't waste time going back to it again.

HONEY BEE



These honey-making bees will die if they use their sting, but bumblebees will not.

LADYBIRD



These come in many colours and patterns but the most well known is the seven-spot ladybird.

DID YOU KNOW?

Most flying minibeast are great pollinators, meaning they visit flowers all around the garden, picking up and spreading pollen, causing more flowers to grow.

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the flowers.

BLUEBELL



About half of the entire world's bluebells grow in the UK! Badgers like to dig up and eat bluebell bulbs.

DAFFODIL



These grow all around Belsay Gardens, including near the hall and the castle.

RHODODENDRON



There are many species of rhododendron at Belsay, and some flower in spring, like this one found in the quarry garden.

PRIMROSE



This is one of the first plants to bloom in spring. Its name comes from the word 'primus' which means 'first' or 'early'.

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FLOWER POWER
SPRING SPOTTER SHEET

KSI-2
KS3

SNAKE'S HEAD FRITILLARY



This delicate wildflower gets its name from the snakeskin pattern on its purple petals.

COWSLIP



The name cowslip actually means 'cow-slop' (cowpat), because it grows best in fields and meadows near the cows!

SKUNK CABBAGE



This bright, upright plant loves damp, shady conditions. Its flowers produce a strong smell, a bit like a skunk!

DID YOU KNOW?

Bulbs live under the ground for most of the year, until the flowers pop up in spring. If left alone, the plant eventually dies back and it happens all over again the next year!

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the gardens.

SPECKLED WOOD BUTTERFLY



These butterflies like the dappled shade around woodland edges.

DOUGLAS FIR



Planted at Belsay in about 1830 (from imported seeds), this tree from North America is one of the first of its kind in England.

WOODLOUSE



These minibeasts love damp, dark places such as piles of dead leaves and rotten logs.

BIRD BOXES



These man-made houses for birds are installed by the gardeners, to give the birds somewhere safe to nest, sleep and shelter.

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WONDERS IN THE WOODS

SUMMER SPOTTER SHEET

KSI-2

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BEETLE



These invertebrates have armour-like exoskeletons. Different beetles eat different things but they all love the woods.

SQUIRREL



These live in trees and eat seeds and nuts. Red squirrels live at Belsay but you have to get lucky to see one! We have plenty of grey squirrels too.

UNDERGROWTH



A healthy woodland has layers. The plants under the trees here are inspired by Mediterranean countries like Italy and give birds and insects a place to hide.

DID YOU KNOW?

A bit of untidiness is good for the woods. Millions of tiny creatures love the dead leaves on the ground – and these are all food for other wildlife like birds and hedgehogs.

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the gardens.

RHODODENDRON GARDEN



This colourful garden, created by Sir Arthur Middleton, is one of the most photographed attractions at Belsay in summer.

BUMBLEBEE



Between spring and late summer these buzz from flower to flower, picking up and spreading pollen.

CLOSE-MOWN GRASS



Keeping the lawn short creates a feeling of structure and formality, which contrasts with the wilder landscape beyond.

CLIPPED YEW HEDGES



These evergreen plants can be clipped into lots of different shapes, providing year-round structure on the terraces.

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TREATS ON THE TERRACE

SUMMER SPOTTER SHEET

KSI-2

KS3

BEAR'S BREECHES



These tall, upright plants have flowers that look sharp and spiky but the petals are soft to touch.

ALLIUM



These tall pom-poms symbolise unity, so they are often given between married couples and long-time friends.

BUTTERFLY



These start life as a caterpillar. Most caterpillars will only eat certain plants, so more plant species means more types of butterflies.

DID YOU KNOW?

The terraces were created close to the hall by Sir Charles Monck in the early 1800s for his family and guests to enjoy.

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the gardens.

FERNS



These evergreen plants love the shade in the quarry. They start life curled up and slowly uncurl.

GUNNERA



Nicknamed 'dinosaur food', due to the prehistoric look of its leaves, this species is native to Brazil and is thought to be over 150 million years old!

POND



All sorts of insects, plants and amphibians have made this pond their home including newts, frogs and toads.

MAGNOLIA



Native to East Asia, this plant was probably introduced to Britain in about 1879. Unlike most magnolias it flowers in summer rather than spring.

ENGLISH HERITAGE
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**QUIRKS IN
THE QUARRY**

SUMMER SPOTTER SHEET

KSI-2
KS3

FORTUNE'S RHODODENDRON



Introduced to Britain from China by Robert Fortune, this plant was recorded in the quarry garden at Belsay by Sir Arthur Middleton in 1926.

CHUSAN PALM



Native to China, this plant was originally introduced to Belsay by Sir Charles. It's very unusual for a palm tree to grow so well this far north.

GROTTO



This keyhole-shaped area is a damp habitat for special types of moss. The sunlight in here is green because it reflects off the mossy walls.

DID YOU KNOW?

The climate here is different from the rest of the gardens. It is cooler and more sheltered from the wind, due to the high stone walls and fir trees planted on top.

These butterflies have made the gardens their home so please **be kind** to them!

PAINTED LADY



These do not hibernate in Britain. Instead, they migrate to warmer countries, flying thousands of miles to North Africa.

CABBAGE WHITE



These come out two to three times a year and fly all day, but not during dawn or in the evening.

COMMA



The jagged outline of their wings looks like a shrivelled brown leaf, so they are very well camouflaged when hibernating in trees in winter.

PEACOCK



These use the eye spots on their wings to scare off predators who want to eat them.

 ENGLISH HERITAGE
EDUCATION

KSI-2

BEAUTIFUL BUTTERFLIES

SUMMER SPOTTER SHEET

RED ADMIRAL



These emerge in spring and fly through the summer, but rarely survive the winter.

TORTOISESHELL



These can be seen feeding on flowers all year round during warm spells. The caterpillars eat stinging nettles.

SPECKLED WOOD



Unlike most butterflies, these don't need nectar from flowers. They suck up honeydew – the sugary waste made by aphids.

DID YOU KNOW?

The mixture of trees and flowers here is great for butterflies. They like sweet nectar from flowers, but their caterpillars also need other types of plants for food.

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the gardens.

FALLEN BEECH LEAVES



The floor of the woods is blanketed with crisp, golden beech leaves in autumn.

RED BANEBERRY



Planted in 2023, as part of Dan Pearson's new garden design, these plants have dark red berries in autumn, which the birds love to eat.

SQUIRREL



These live in trees and eat seeds and nuts. We have red and grey squirrels at Belsay, although you have to get lucky to spot a red one!

PINE CONES



Pine cones have woody scales that overlap, while fir cones have softer, more flexible scales that don't overlap.



ENGLISH HERITAGE
EDUCATION

KSI-2

COLOUR AND COLLECTING

AUTUMN SPOTTER SHEET

CRIMSON GLORY VINE



First recorded in the quarry by Sir Arthur Middleton in 1923, the leaves of this climbing plant change colour in autumn, turning the quarry walls orange and red.

FIR CONES



Fir trees have cones that grow upwards, like candles, whereas pine trees have cones that hang down from the branches.

NUTS



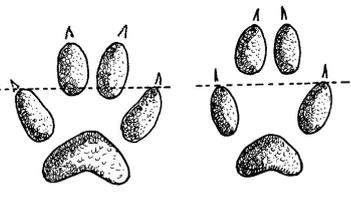
Animals such as squirrels spend the autumn months feeding, plus collecting and burying nuts to store and eat through the winter.

DID YOU KNOW?

In 2023, Dan Pearson, a famous garden designer, added new plants to Belsay that flower in autumn, so the gardens stay colourful for more of the year.

You can **look** and **sniff**, but don't lick or pick! This keeps you safe and protects the gardens.

FOX PRINTS



1. 2.

Notice the difference between a dog (1) and a fox (2) print. Fox tracks also tend to be more purposeful than a dog's, e.g. heading in straight lines.

SNOWDROPS



January to March is snowdrop season. Known as the first sign of spring, you will find them growing all around the gardens at Belsay at the end of winter.

TREE BUDS



In late winter, you will notice these start to form on trees. These are the start of leaves and flowers that will open up in spring.

SPARROW HAWK



These fly through the trees chasing birds and can sometimes be seen feeding on their prey.

 ENGLISH HERITAGE
EDUCATION

WATCHING AND WAITING

WINTER SPOTTER SHEET

KSI-2

BADGER SIGNS



Badgers come out at night and leave lots of clues e.g. scratch marks on logs, plus holes dug along paths with their poo in (a badger latrine!).

DEER TRACKS



Look for repeating hoof patterns in mud, frost and snow.

SNOW



Snow appears white but it is actually see-through! When light reflects off it, the many sides of a snowflake scatter the light, diffusing colour and making it look white.

DID YOU KNOW?

In winter, there is lots of garden activity that we don't see as plants and animals wait, hide and prepare for spring.



GARDEN ACTIVITIES

Ideas for hands-on outdoor learning experiences that suit a range of different learning styles and curriculum areas.

SELF-LED ACTIVITY

ART: PICTURESQUE PATHWAY



Recommended for

KS2–3 (Art, History, Geography)

Learning objectives

- Understand the ideas behind Sir Charles Monck's Picturesque landscape design.
- Identify Picturesque features in the gardens and develop skills of orientation.
- Make connections between the hall, castle and gardens.

Location

From hall to castle, through the gardens

Time to complete

Approx. 1 hour



As part of his Picturesque vision, Sir Charles created a dramatic, rugged garden in the quarry.

SUMMARY

'Picturesque' describes a style of landscape or garden, especially in the late 1700s and early 1800s, that featured spectacular scenery which was broken up into irregular and varied views, with a sense of wildness in the planting.

William Gilpin first used the term in 1768. It was defined further by Uvedale Price and Richard Payne Knight as scenery suitable for painting. For further context, read about Sir Charles Monck's and Lady Mary Monck's Picturesque designs on pages 11–12.

DURING YOUR VISIT

During your visit, walk through Belsay's gardens from the hall to the castle, using the Teachers' Notes (on page 32) to stop at six different locations along the way. Use the activity suggestions to explore some of the features of Sir Charles' Picturesque vision. Each location highlights one aspect of the landscape design, breaking it down into simple ideas with clear examples.

To get the most out of this resource, each student will need a clipboard, some paper and a pencil, for making sketches and notes. We don't recommend using loose paper without a clipboard as it can get windy in the gardens.

MORE LEARNING IDEAS

Take photos of the Picturesque scenes you see around the gardens. Back in the classroom, students could use these, plus the notes they made at Belsay, to create a Picturesque landscape painting, inspired by their visit. Share your artwork with us @EHEducation.

PICTURESQUE PATHWAY

TEACHERS' NOTES

PICTURESQUE FEATURE	LOCATION	ACTIVITY
1. IMPRESSIVE ARCHITECTURE	On the circular patch of grass in front of the hall.	Sketch the front of the hall. Think of some words to describe it e.g. grand, huge, classical. Now discuss what this building suggests about the man who created and lived in it, Sir Charles Monck.
2. LANDSCAPE CONTRASTS	Standing on the top level of the terraces, looking at the view.	Explore the different textures you see in the foreground and the background of this view. Note down key contrasts.
3. NEAT BEAUTY	Walking along the terraces.	Wander between the flower beds and examine the shapes and patterns of the paths, flower beds and plants.
4. SUDDEN VARIATION	Just through the door from the formal gardens, at the start of the quarry garden.	Spot the difference between the formal garden environment and the wilder quarry garden (explore sounds, sights and smells).
5. GLOBAL CONNECTIONS	In the quarry garden.	Use the 'Quirks in the Quarry' spotter sheet. Find some imported plants, and discuss where they came from and why they were important to Sir Charles.
6. EYE-CATCHING RUIN	At the castle.	Sketch the outline of the ruin from a distance. Consider what statement this building makes about Sir Charles' long family history.

SELF-LED ACTIVITY

MATHS: TREE SURVEY



KS2

KS3

Recommended for

KS2–3 (Science, Maths)

Learning objectives

- Examine the circumference, height and appearance of a tree.
- Roughly calculate the height of a tree using Sir Arthur Middleton’s method.

Location

Woodland path between formal gardens and quarry garden

Time to complete

Approx. 30 minutes



The trees along the woodland path back from the quarry garden to the formal gardens. We recommend doing this activity here.

SUMMARY

Explain to students that trunks grow outwards as well as upwards, forming a new layer of growth every year. If you sliced through a trunk you would be able to see its growth rings, and you could count them to work out how old the tree is. You can also gather information about a tree from its height and appearance.

We recommend sending each group to examine a different tree. Encourage them not to wander off and to stay visible while completing the tasks.

GROUP SIZE AND EQUIPMENT

This activity works best when working in teams of three or four, with a supervising adult.

Students will need to bring a clipboard, paper and something to write/draw with.

Ideally, you would also bring soft measuring tapes, and measuring wheels, enough for one per group.

Using the Teachers’ Notes on pages 34–35, help students gather data on:

- The colour and texture of the bark.
- Seasonal observations – for example, the presence of buds, blossom or fruit.
- The shape of the leaves.
- The circumference of the trunk.
- The height of the tree.

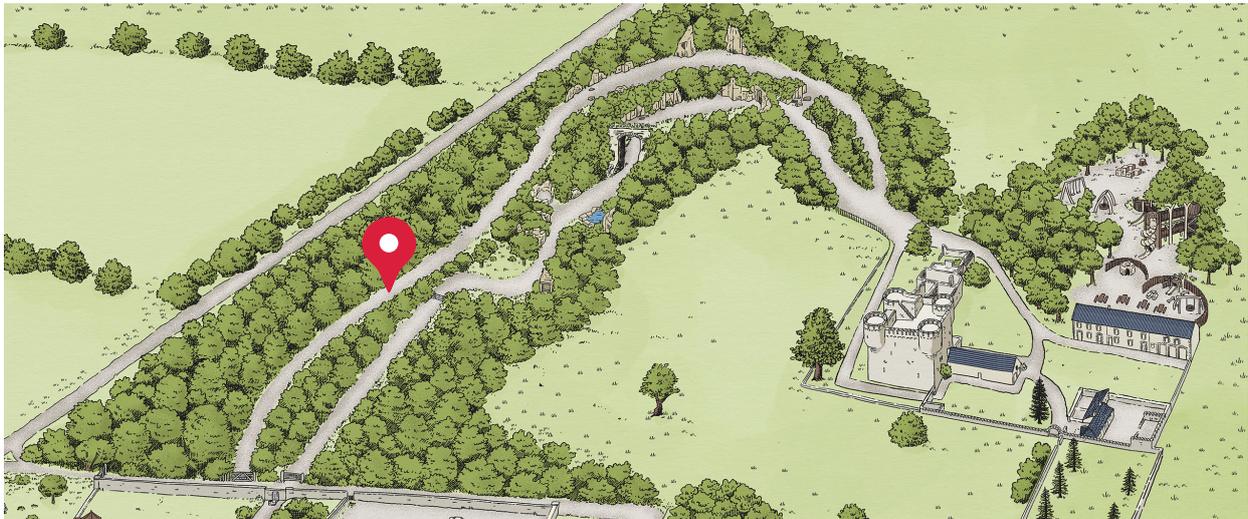
MORE LEARNING IDEAS

1. Use the ‘Terrific Trees’ spotter sheet in this kit to identify the species of tree you were studying, then identify some others nearby.
2. Identify tree types in the grounds of your school and tally the number of occurrences of each to get a sense of how diverse the area is and which trees are more or less common.

TREE SURVEY

TEACHERS' NOTES

On the woodland path between the quarry and formal gardens, you will find a line of tall trees. These trees are ideal for doing this activity (see map below).



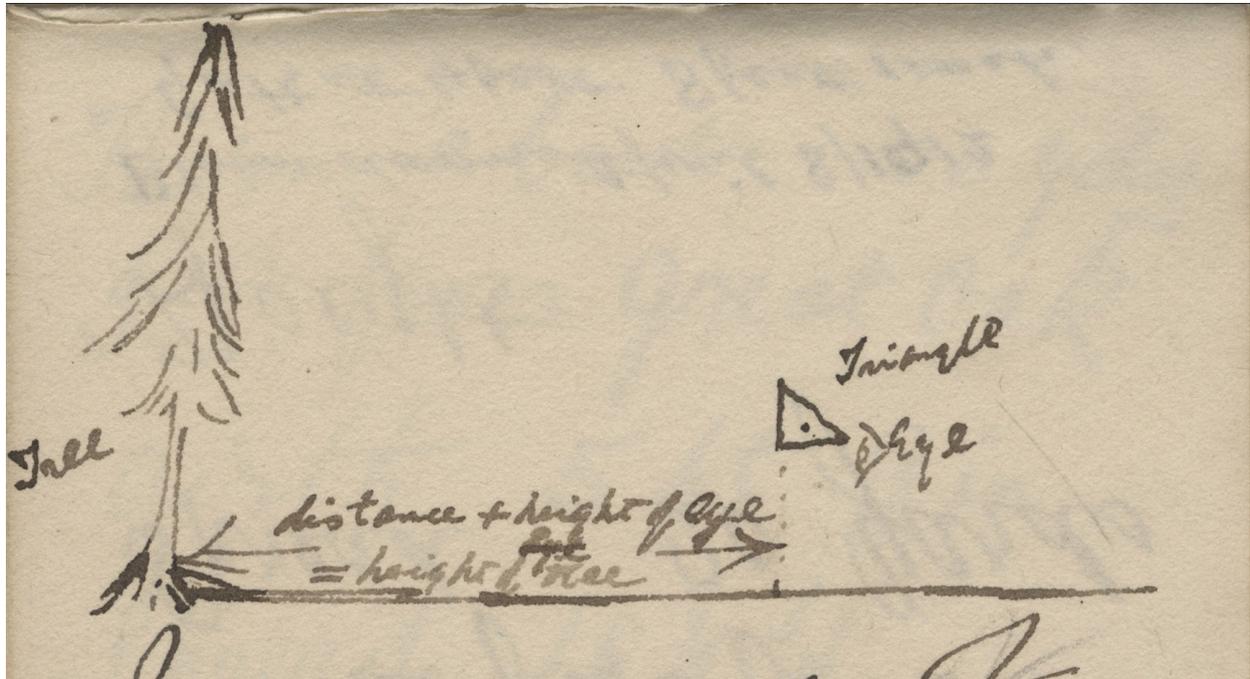
Once gathered, split your group into teams of three or four.

Each team should work together, with their measuring equipment and clipboards, to gather data on the tree:

1. Describe the colour and texture of the bark. If safe and possible to do so, make a bark rubbing.
2. Make seasonal notes e.g. the presence of buds, blossom or fruit.
3. Draw the shape of the leaves. If you spot one on the floor, you can pick it up and draw around it.
4. Measure the circumference of the trunk (this is officially measured at an adult's chest height, or 1.3 metres from the ground).
5. Roughly calculate the height of the tree (see Sir Arthur Middleton's sketch of this method on page 34):
 - a) Find a stick the same length as your arm, or grasp it at a point where the length of the stick above your hand equals that of your arm. Please be careful when working with sticks.
 - b) Hold the stick pointing straight up, at 90 degrees to your outstretched, straight arm.

continued overleaf ...

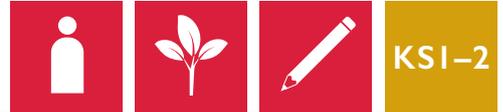
- c) Carefully walk backwards until the top of the tree lines up with the top of your stick.
- d) Mark where your feet are. Measure the distance between your feet and the tree with a measuring wheel or, more roughly, by counting metre-long strides.
- e) The distance between your feet and the tree is roughly equivalent to the height of the tree.



Sir Arthur Middleton's sketch of a similar method for measuring the height of trees, from his diary: 'Measurements of Trees at Belsay 1873'. You can see the full diary page this diagram was taken from in Source 3, on page 40.
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SELF-LED ACTIVITY

ENGLISH: POETREE



Recommended for

KSI-2 (English)

Learning objectives

- Use nature as a stimulus for creative writing and explore poetic techniques.
- Develop skills of imagination and creativity.

Location

All around the gardens

Time to complete

45–60 minutes



We call this the handkerchief tree because its bracts (modified leaves, visible for a short time in early summer) look like soft white tissues.

SUMMARY

During your visit, ask students to look for interesting trees to inspire a nature poem, using their imaginations to explore the creative potential of the trees.

THINKING CREATIVELY ABOUT TREES

Animals

Comparing trees to other things, like animals, can inspire similes, metaphors and personification. Visitors have noticed animal shapes in trees at Belsay, such as a reindeer, an octopus and a snake.

Textures

Observing the texture of bark, leaves, flowers and fruit can help to develop vocabulary for use in descriptive and figurative language.

Senses

Exploring trees through different senses helps students expand their vocabulary and think about different ways to describe what they are seeing, hearing, touching and smelling. Please don't pick or lick anything, though!

Personality

Imagining the tree as a character, with a personality, can help with using metaphors and personification. They might find a tree that they think looks like a cheeky elf, a friendly giant, or an ancient octopus.

Back in the classroom, spend some time making a class list of key poetic techniques such as: simile, metaphor, onomatopoeia, alliteration, repetition, form, structure, rhyme, personification and hyperbole. You could focus on a well-known form of poetry such as a limerick or haiku. Then ask students to turn the ideas they gathered at Belsay into a poem inspired by one tree they were particularly drawn to.

MORE LEARNING IDEAS

Share your finished poems with us @EHEducation.

SELF-LED ACTIVITY

SCIENCE:

HABITAT HEROES



Recommended for

KSI-2 (Science, Geography)

Learning objectives

- Understand how different habitats are suited to different plants and animals.
- Discuss what can be done to look after habitats and keep them healthy.

Location

Rotate around the terraces, woods and quarry

Time to complete

60 minutes; 20 minutes in each habitat



Students will look closely at three different habitats, comparing and contrasting their features.

SUMMARY

GROUP SIZE AND EQUIPMENT

We recommend splitting your class into three smaller groups, each with a supervising adult. Ideally, you would bring magnifying glasses with you, enough for one per student, but this activity can still be done without them. You will need to print three spotter sheets from this kit: Wonders in the Woods, Treats on the Terrace and Quirks in the Quarry. You will also need a way of timing one minute, whether on your phone or by using a sand or egg timer.

During your visit, take one group to the terraces, one to the woods and one to the quarry. Once there, ask each student to find a space and close their eyes. Time one minute and get students to make a mental note of the different sounds they hear in that time. Discuss once the time is up.

Next, use the related spotter sheet to explore the habitat and identify some of its features. Explain that the soil type, levels of sunlight, and the things that live in each habitat work together to make it an attractive or unattractive home for certain plants, insects and animals. The gardens team at Belsay look after the habitats to keep them healthy and encourage biodiversity.

Now repeat the activities in the two habitats you haven't yet visited. Encourage students to compare (e.g. bright/shady, warm/cool, loud/quiet) and discuss why they are all so different.

MORE LEARNING IDEAS

Discuss what can be done in the outdoor areas around your school to encourage different types of plants and wildlife to make it their home. Can you plant things that bees, birds and butterflies like? Could you make a bug hotel or pile up some old logs to make a home for minibeasts and fungi? How can you encourage birds and other animals to spend more time feeding and nesting in this area?



POST-VISIT

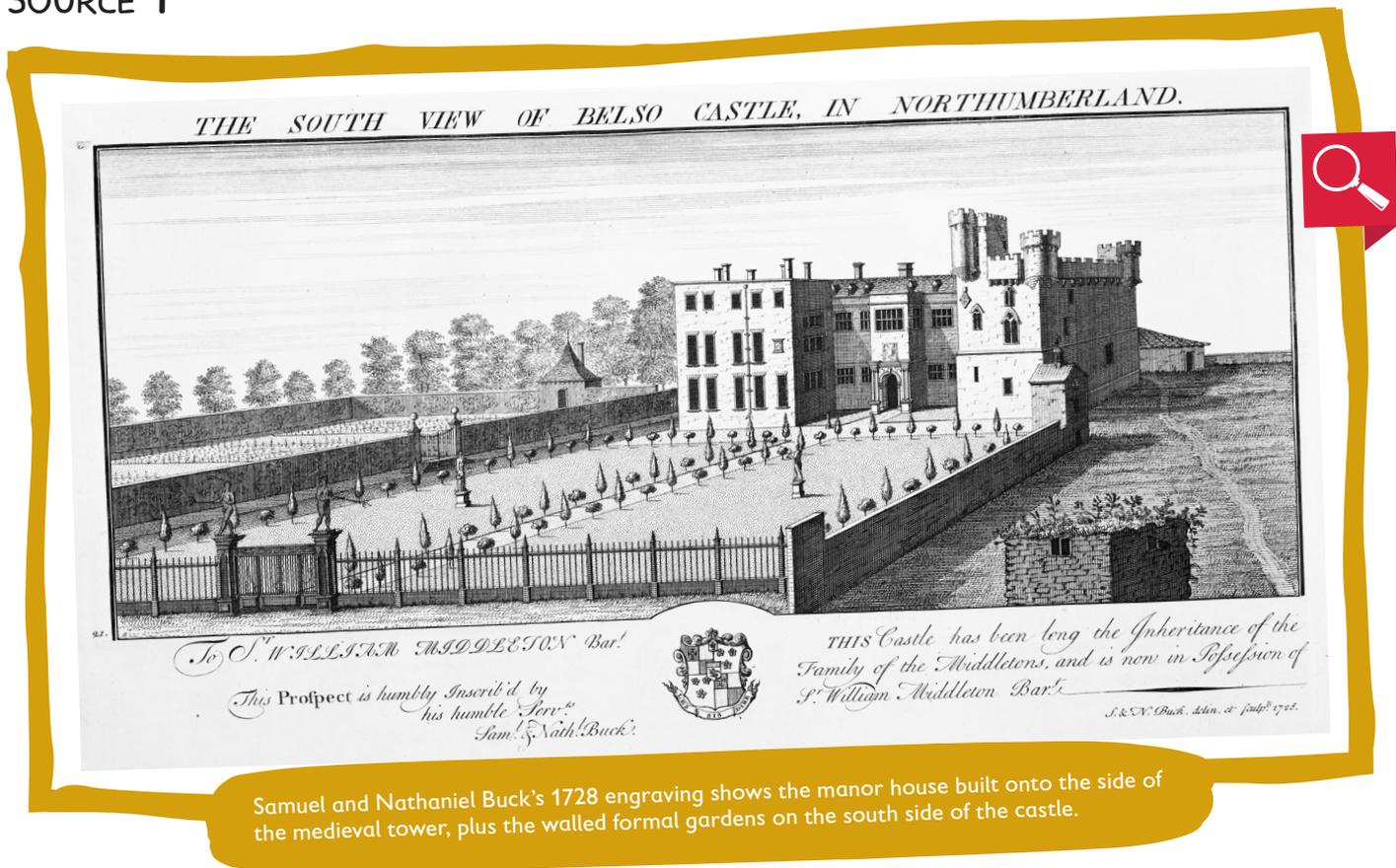
Information to help you extend your students' learning back in the classroom.

SOURCES

PEER INTO THE PAST

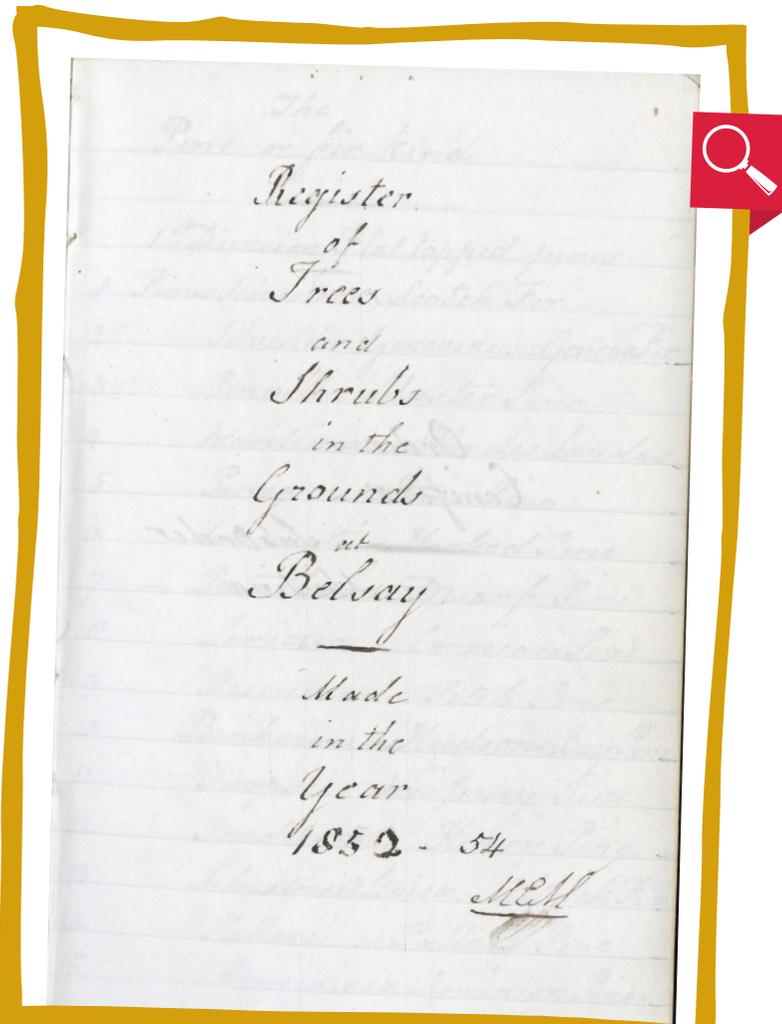
A historical source is something that tells us about life in the past, such as a document, a picture or an object. It may be a primary source, from the time, or a secondary source, created later. Our experts have chosen these sources to help you learn about Belsay's history.

SOURCE 1



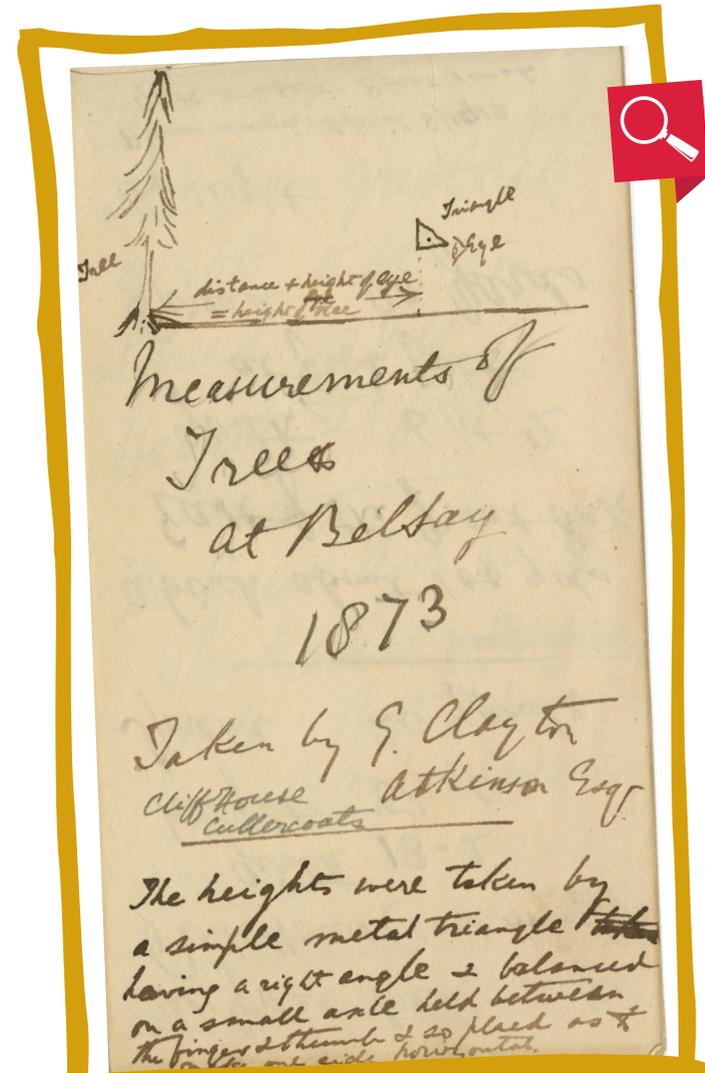
Samuel and Nathaniel Buck's 1728 engraving shows the manor house built onto the side of the medieval tower, plus the walled formal gardens on the south side of the castle.

SOURCE 2



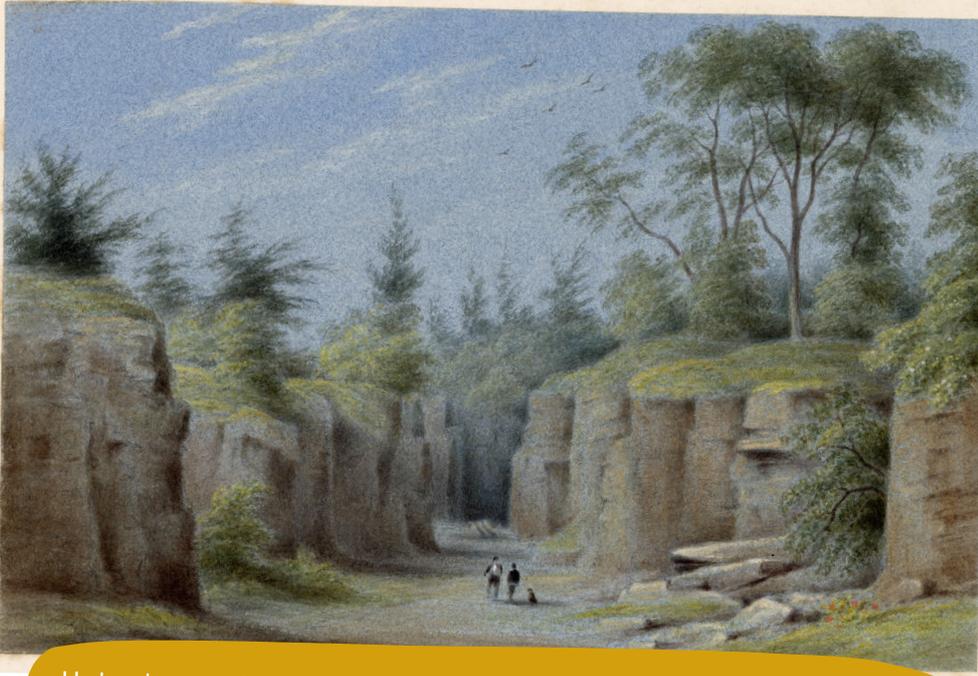
'Register of Trees and Shrubs in the Grounds at Belsay. Made in the Year 1852-54', by Sir Charles Monck. Sir Charles kept a diary about his gardening activities. He recorded daily and seasonal changes in the garden, noting ideas and instructions on how to grow certain plants. © Published with kind permission of Northumberland Archives and the Belsay Estate

SOURCE 3



Sir Arthur Middleton's notes on calculating the height of trees, from his diary: 'Measurements of Trees at Belsay 1873'. There is a diagram at the top and the text at the bottom reads: 'The heights were taken by a simple metal triangle having a right angle and balanced on a small axle held between the finger & thumb & so placed as to make one side horizontal.' © Published with kind permission of Northumberland Archives and the Belsay Estate

SOURCE 4



Undated watercolour painting of Belsay quarry garden by The Hon. T. Liddell. It shows the planting style in the quarry before the changes made by Sir Arthur. © Published with kind permission of Northumberland Archives and the Belsay Estate

SOURCE 5



This watercolour from 1853, painted by Georgina Eyre (1785–1861), shows the view from the upper terrace with the lake and Crag Wood beyond. © Private Collection