Nature Connectedness

5-minute activities linked to each pathway

Nature Connectedness

"...there is a need to go beyond activities that simply engage people with nature, through knowledge and identification, to pathways that develop a more meaningful and emotional relationship."

Professor Miles Richardson

5 ways to be closer to nature, May 2017 – University of Derby

What is Nature Connectedness?

Nature Connectedness is a psychological concept that refers to how an individual perceives their relationship with the natural world. Over time, our society's connection to nature has decreased in what is now an increasingly urbanised and fast-paced world.

ZSL's aim is to encourage pupils to find their place in nature. Teenage years see the steepest decline in reported nature connectedness, and this doesn't start to recover until the 30+ age bracket. We hope that with early intervention, we can reverse some of these effects.

There are notable benefits to nature connectedness, both for physical and mental well-being. This is particularly pertinent given the current mental health struggles reported by young people. Nature can become part of an individual's self-regulation toolkit, as well as improving attention, alertness and feelings towards life satisfaction.

Furthermore, encouraging our young people to feel connected to nature is an important step in future-proofing not only their own well-being, but that of the planet's, too.

How to use these resources

There are 5 pathways identified as predictors of nature connectedness: **contact, beauty, meaning, emotion and compassion**. Simply observing or understanding more about the natural world was not found to have the same impact. (‘Beyond knowing nature’, Richardson, et al.)

Each of the following slides contains a short activity linked to one of these 5 pathways. The activities can be used at any time, to support any need. Some may help with regulation between transitions, such as providing a calm moment after a hectic lunchbreak. They may work as natural ‘brain breaks’ during longer sessions of work. You may find opportunities to include some ideas in existing lesson plans.

Please take and adapt these ideas in any way that suits you and your class. We hope that your pupils enjoy these opportunities to explore their personal connections to nature and would love to hear about anything that particularly resonates with your students.

5 pathways to Nature Connectedness

1: Senses

‘Using all our senses to connect to nature’

1: Senses – sight

Observe insects up close

Before heading outside, discuss where you are most likely to find insects on your school site. What sort of conditions do insects like? Where are you most likely to find the largest sample of different insects?

Using magnifying glasses, bug pots, or an observation photo frame, find an area to observe. Carefully lift up any logs you may be looking under. Set a 2-minute timer and observe the insects' movements and actions during this time. Look at where they go; how they move their heads, legs and bodies; whether they cross paths with other insects and how they interact or avoid one another.

Discuss your observations as a group. If time, set another 2-minute timer and see if you can spot any of the behaviours others have noticed.

Observation photo frame available here

1: Senses – sight

Colour collecting

Before starting the activity, ask your pupils how many colours they expect to find outside. Will they see certain colours more than others? Will the colours all be the same shade?

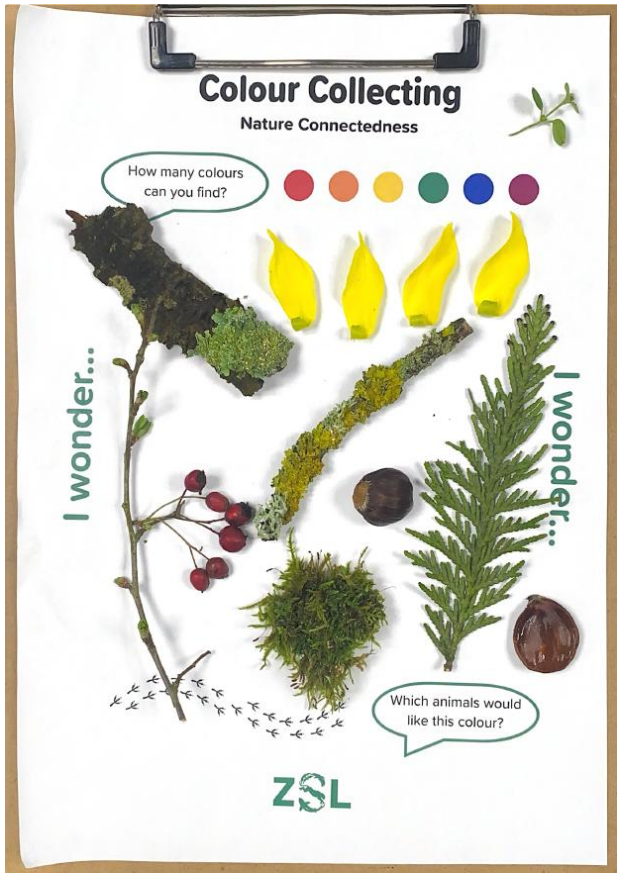
Use **'I wonder...'** statements both before and during the activity:

"I wonder where we will find the most of a particular colour?"

"I wonder if there are any colours we won't find in this season?"

Give each pupil either a piece of paper with double-sided sticky tape attached or put pupils into groups with collection bags. Challenge them to collect as many different colours as they can.

Discuss why different colours exist in nature. Encourage pupils to consider which colour on their sheet might attract a particular animal or insect. Are there any changes you could make to your outdoor area to make it more attractive for this or other animals?



Colour collecting sheet available here

1: Senses – sight

Mindful Moments

from BBC's Autumn, Winter and Spring Watches

Spend 2-5 minutes enjoying picturesque views, animal activity and changing seasons set to the sounds of nature from the comfort of your classroom.

- Autumn Mindful Moments
- Winter Mindful Moments
- Spring Mindful Moments

1: Senses – sound

Listening to birdsong

Before heading outside, discuss why pupils think birds sing. What times of day do they think we are most likely to hear them? Why is this?

Find a quiet place outside. Once everyone is settled, start a timer. Encourage pupils to close their eyes and listen out for bird songs and calls. They could keep count on their fingers of how many sounds they hear or point in the direction of where the call is coming from.

Merlin Bird ID is a free app by CornellLab that allows you to record and identify birds. Try using it at different days and times to see whether this affects the types of birds you record.

Extend this activity by creating a map of the school area and identifying 'listening stations'. Note which birds you hear at different locations around the site and reason about any differences noted.

1: Senses – sound

Nature soundtracks

Enjoy listening to a compilation of sounds compiled by the WWF, from the jungles of Borneo to the to the woodlands of the UK.

Meditation / Natural sounds - YouTube

1: Senses – sound

Sound mapping

Sound mapping will help pupils tune into the nature around them. If it is quiet enough, you might be able to hear creatures outside, such as birds in the trees or rustling insects. You may even hear long grass blowing or leaves crunching. Pupils should also include any human sounds they hear, such as cars or voices.

Set a timer for 2-5 minutes to allow pupils focused time to complete their maps.

See the following slides for different examples of ways in which pupils could complete these.

Ask pupils which sounds they enjoyed hearing and how this made them feel.

1: Senses – sound

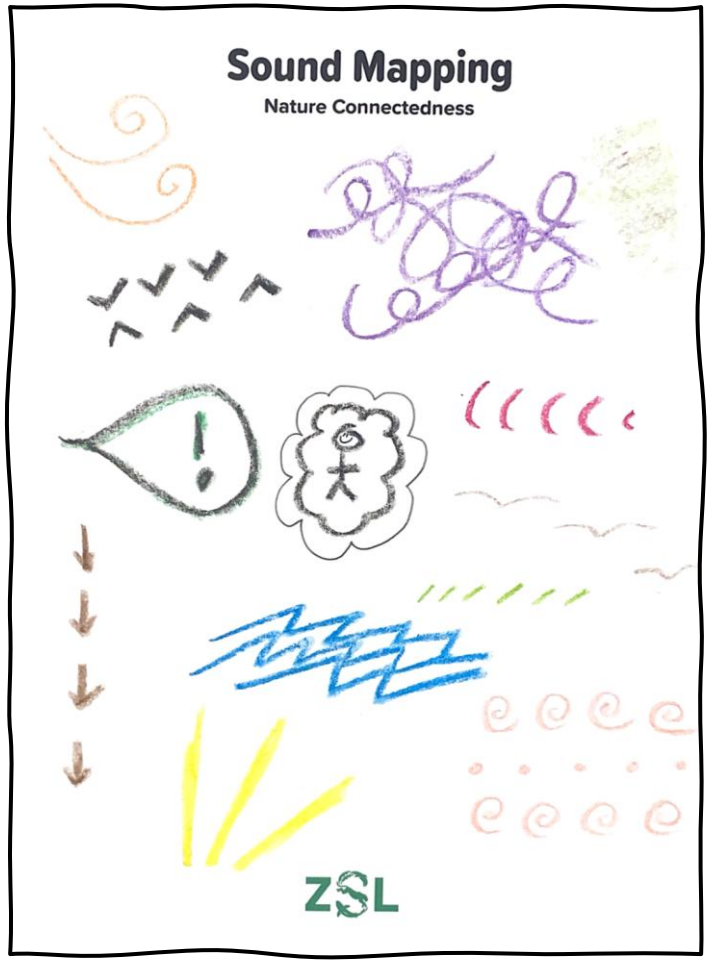
Sound mapping through mark making

Encourage pupils to consider what a loud sound would look like on paper, compared to a quiet sound. How would they represent soothing, gentle sounds, versus jagged or unpleasant noises? Long, meandering notes and short bursts? The pressure of the pencil or the choice of crayon colour could also represent differences in sounds.

After drawing themselves in the middle of the paper, encourage pupils to record sounds using different patterns, shapes, symbols, lengths and directions of lines.

Pupils could compare their mark choices with a partner and discuss the reasoning behind their choices for different sounds.

ZSL sound mapping sheet available here



Mark making, 3 minutes

1: Senses – sound

Sound mapping using a written record

In this version, pupils write the names of the different sounds they hear, in a space on the paper that reflects the direction the sound is coming from. They could also use arrows to show this.

The closer the sound, the closer they would write the word to the picture of themselves in the centre of the page.

They could also experiment with writing louder sounds in capital letters and using smaller handwriting for quieter sounds.

Written record, 3 minutes

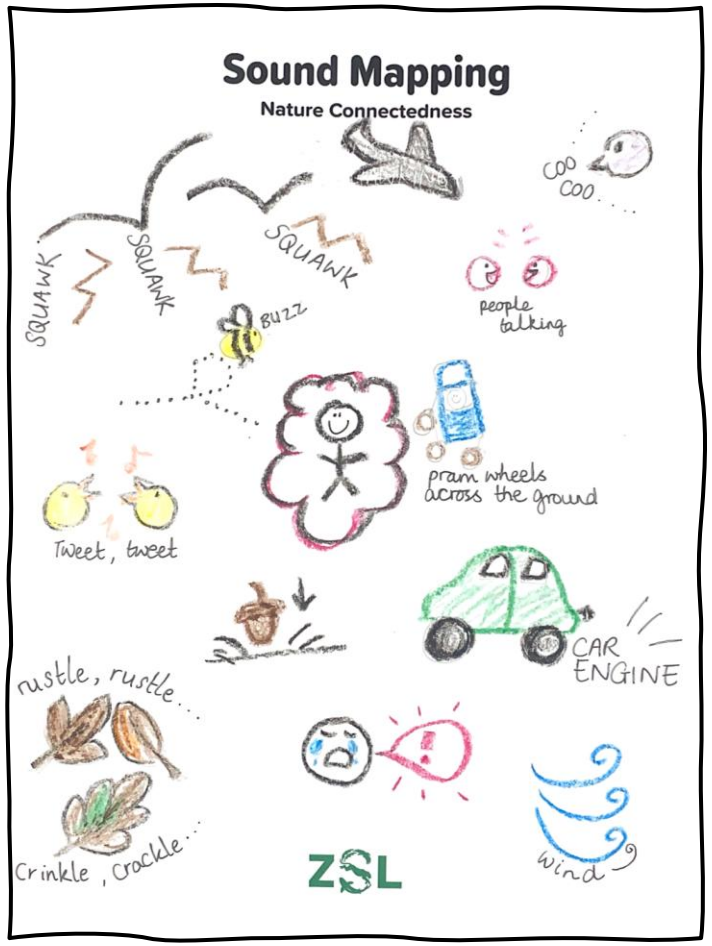
ZSL sound mapping sheet available here

1: Senses – sound

Sound mapping through pictorial recordings

Here, pupils draw pictures of what they can identify making each sound. More confident artists could draw, for example, specific species of bird if they are able to identify these.

You could guide pupils to be creative about the ways in which they represent volume and/or their personal feelings towards certain sounds.



Pictorial recordings, 5 minutes

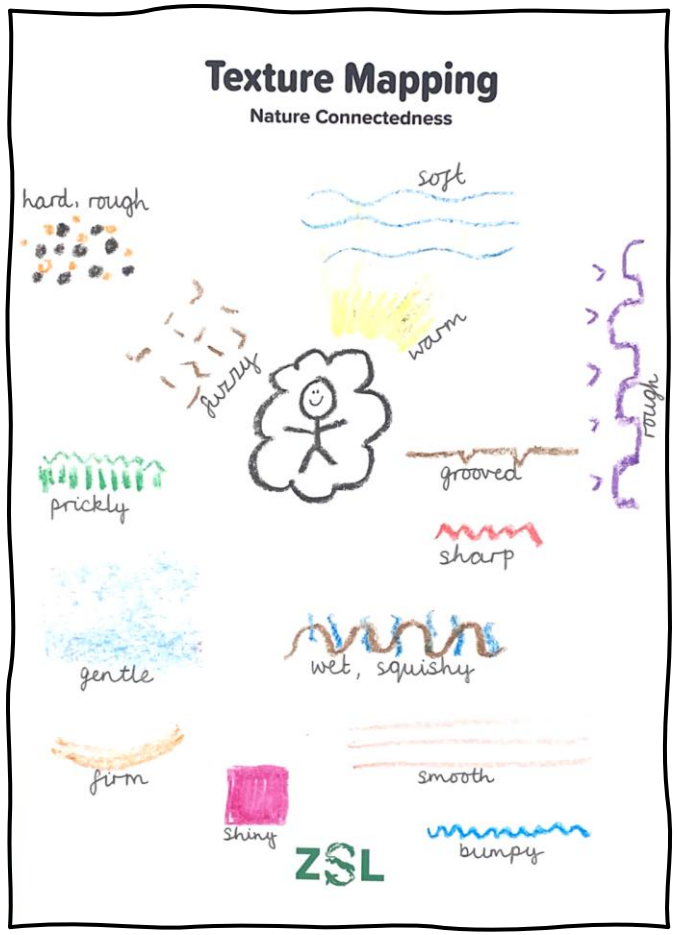
ZSL sound mapping sheet available here

1: Senses – touch

Texture mapping

Pupils represent the different textures they come across outside through mark making. Before starting the activity, encourage pupils to consider what rough textures would look like on paper and how they could show smooth textures. How will they choose to represent whether something is dry or wet? Bumpy or soft?

Explore an outdoor area, stopping to notice how different objects feel: tree bark, leaves, flower petals, walking in mud compared to walking on pavement, plus any man-made objects they come across. Draw different lines, patterns and symbols to represent each texture. They could also consider whether (and how) to include their personal feelings towards the different things they have touched.



ZSL texture mapping sheet available here

1: Senses – touch

Manipulate natural materials

Go on a nature walk to collect a range of leaves, seeds, sticks and other natural objects, and use these to create a sensory collection or table.

Once this has been compiled, allow pupils the opportunity to create tactile connections by interacting with the objects in a manner of their choosing. They could build with sticks, create leaf rubbings, sort and match, or make pictures/collages/mosaics out of the objects collected.

As the pupils engage with the objects, take the opportunity to have conversations around nature, the changing environment, and to describe the sensory experiences they are encountering.

1: Senses – touch

Bark rubbing

Explore how bark varies from tree to tree by creating bark rubbings. Encourage pupils to feel the different bark for themselves and consider how it feels to run their crayons/pencils over the bark while creating their rubbings.

For older pupils, you may want to introduce them to the different types of bark that grow on branches: **tension** bark grows on top and is smoother to support the structure against the effects of gravity, whereas **compression** bark grows underneath and is rougher to reinforce the lower sides. You could link this partnership to the way muscles work and coordinate in the human body (e.g. branches are the arms of the tree, and the tension and compression bark act like the biceps and triceps).

1: Senses – touch

Planting seeds

This could be achieved in a variety of ways and potentially linked to curriculum topics.

Pupils use recycled materials to create upcycled planters or start personal seed planters in the classroom.

See these ideas from the **Royal Horticultural Society** for further information:

- Fruit juice seed carton trays
- Easy herbs to grow in school
- Milk bottle watering can

You could go further by setting up a school garden.

- Health and safety in the garden
- What shall we grow?

Source: RHS.org

1: Senses – smell

Scents of nature

Either individually or in groups, allow pupils to explore different items in the outdoor area and what these smell like.

Encourage pupils to try to describe the smells they come across. Do any of the scents remind them of anything? Do they agree on what something smells like and whether it is a scent they enjoy?

If any items are already on the ground (i.e. have naturally fallen/are no longer rooted), pupils could carefully collect some of these different items and combine them in a container. Do they like the combined smell? What would they call the natural perfume they have made?

5 pathways to Nature Connectedness

2: Beauty

‘Noticing, appreciating and celebrating the beauty of nature’

2: Beauty

Arrange leaves into patterns

Pupils collect leaves either individually or in groups and create patterns in a style of their choosing.

They may want to create something symmetrical that forms out of a central point, like a mandala; alternatively, they could arrange leaves by colour or type; or perhaps make pictures out of what they have collected.

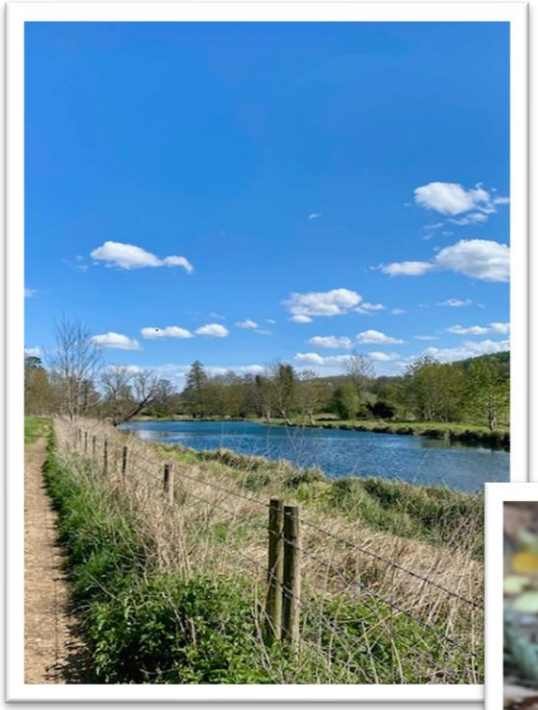
2: Beauty

Photograph a natural scene

Before heading out into nature, you may want to start a discussion around why we take photographs. What is their purpose? Who are they for?

Give pupils the opportunity to explore different areas and consider what they find beautiful. This could be a wider landscape, or it could be something macro that they want to capture. Encourage students to be patient and wait for the right moment – nature is unpredictable!

This activity will provide an opportunity for pupils to pay attention to detail and feel more connected to their discoveries through their personal documentation.



2: Beauty

Noticing nature

Set your class a challenge: for the rest of the school week, they should all aim to notice at least one good thing in nature; this could be a small detail or large view. As well as sight, think about using your senses of smell, hearing and/or what you can touch or feel.

Pupils' 'one good thing' could be bird song; the feeling of the wind on their face; the smell of a plant; a sense of wonder at how far tree roots spread under their feet.

Ask them to focus on what their 'thing' makes them think and feel. Which parts of nature provide feelings of happiness, calm or amazement?

Pupils could write these down each day, take a photo or share what they have noticed with a partner.

2: Beauty

Make up descriptive names

If pupils are unfamiliar with the names of different plants, trees, insects, etc., they might like to come up with their own creations based on an object's appearance.

Get them to consider what shapes they can see; does it remind them of anything else?

They could incorporate colour, feel, scent or sound in their ideas, or perhaps draw inspiration from books or other media they can relate to their observations.

'Fairy helicopter'

'Ballerina skirts'

'Lavender tails'

2: Beauty

Slow looking

Slow looking is just what it sounds like: taking time to pause and spend longer looking at something than you normally would.

“There are lots of benefits to slow looking. Slowing down, turning on your senses, and engaging deeply with an object, can help you to feel relaxed and refreshed, improve your wellbeing, and reduce stress. Slow looking also fosters curiosity and creativity and with time and practice can help you to notice more – wherever you are and whatever you’re looking at.” (kelmscottmanor.org)

Start small and build up the amount of time you spend looking at a singular object or wider view with your class.

What do you notice? How do you feel? What are you thinking?

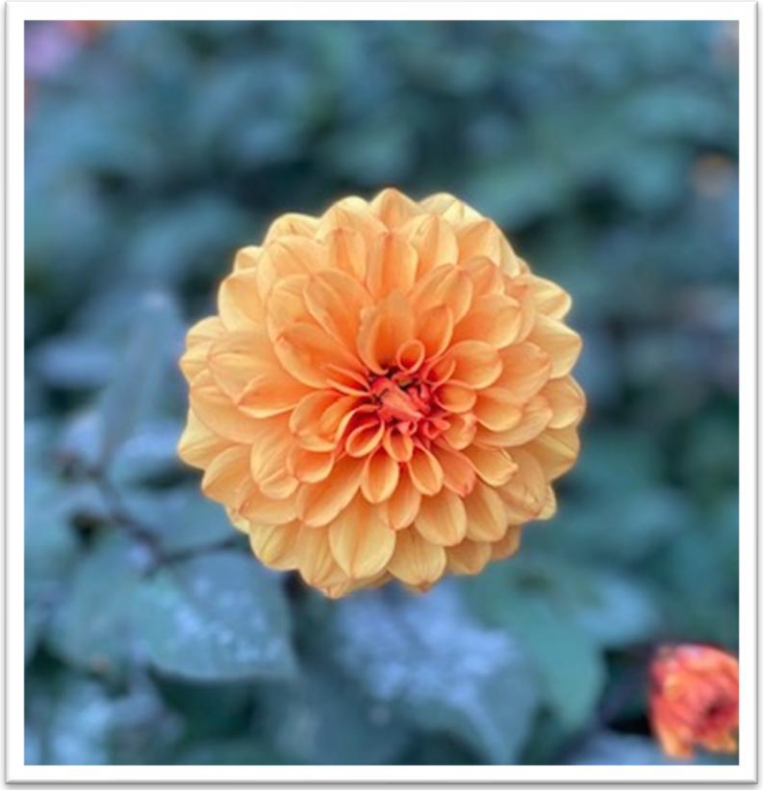
2: Beauty

Reflections on beauty

Encourage pupils to consider not just what they find beautiful in nature, but why it is beautiful to them.

They may initially find this tricky to explain.

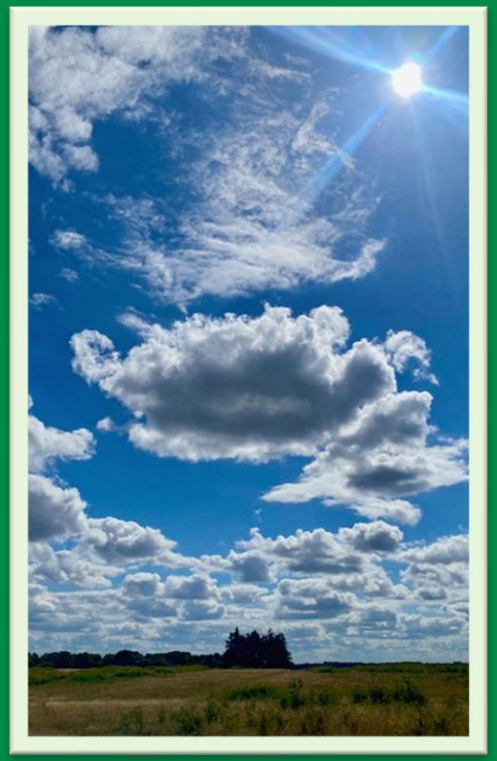
Remind them that what they find beautiful might have nothing to do with the way something looks but could be how it connects with other nature in the space, or perhaps what it reminds them of or how it makes them feel.



5 pathways to Nature Connectedness

3: Emotions

‘Seeking, noticing and reflecting on positive emotions that we feel when around nature’



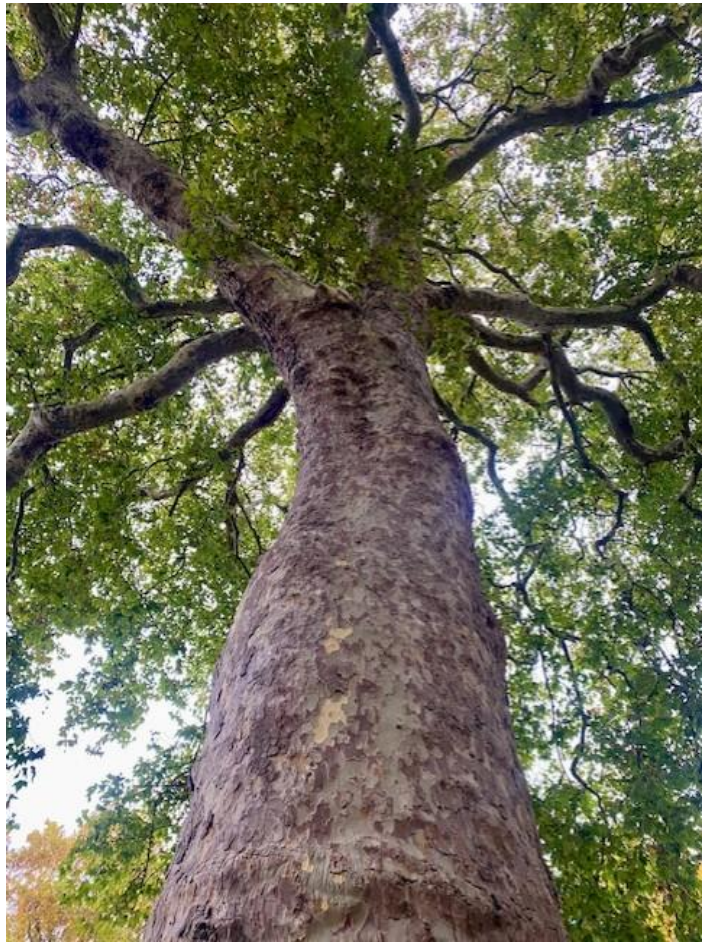
3: Emotions

Personifying nature

Encourage pupils to connect to the nature around them by giving plants and creatures names and imagining experiences from these perspectives. They could create imaginative oral ideas to share with a partner, perhaps even conversing back and forth as two objects.

This activity could be brought back into the classroom as a creative writing project, where pupils record their rehearsed ideas and start to add more detail.

See the following slide for examples of personifying nature in 1st and 3rd person narrative styles.



Personifying nature: 1st person example

Personifying Nature

Nature Connectedness

From high up where I hang, I look down through the zig-zag of branches to the carpet of green below. The strands of grass are all dancing to the wind's calming tune, swaying left then right in unison. I hear a warning cry above me: a hungry crow circles above scouting for its next meal. As its shadow passes over us, the leaves around me seem to tremble in fear. I hold my breath and stay as still as I can, hoping I won't be noticed - hoping I am camouflaged well enough to avoid detection.

Without warning, the crow's head whips round to the right. A loud rumble has burst from the sky, like a stampede of horses is heading our way. The crow takes off like a shot. I hear a dull pitter-pattering before feeling something icy slide down my side. Soon, I am being bombarded from all sides. Just as quickly, the scene around me starts to change, as creatures spring for cover while thirsty plants reach out for this welcome drink. I hope that the rain isn't heavy enough to make me lose my balance from this height, without a cushion to break my fall. I'm not ready to join my fellow acorns on the ground just yet.

Personifying nature: 3rd person example

Personifying Nature

Nature Connectedness

Quietly, Timmy the squirrel crept across the grass. He stopped to sniff the air, enjoying the scent of spring flowers that were beginning to bloom. One of his favourite things about his home was watching the changes that took place throughout the year. The vibrant green leaves of summer as they turned yellow, red and brown signalling autumn's arrival, and the cold frosty winter ground becoming soft and squishy again once spring had swept in. Everyday, Timmy left his warm spot in an old beech tree to scamper along the same familiar path. Right now, he could feel the growing grass tickling his paws and was pleased the ground was starting to become drier and firmer to walk on. Although he didn't mind mud too much, it was difficult to get it out once it was stuck under his claws or in his tail.

Approaching the fence, Timmy crouched down and got ready to launch himself up onto the narrow fence. The feeling of the wind rushing past his whiskers never got old! From the fence, it was a quick hop into the branches of the enormous oak. This always brought a sense of excitement, as Timmy had created his own personal competition to see just how many acorns he could gather in one fell swoop.

3: Emotions

Feelings of awe, wonder, joy, calm and delight

Plan outdoor sessions around changes in nature and the seasons to allow pupils opportunity to experience annual “firsts”, e.g. buds appearing, bird murmuration, leaves starting to fall, or simply a chance to watch the clouds shift in shape, size or direction.

Model a sense of awe by commenting aloud the things you find astonishing in nature and ask open-ended questions that don’t have ‘right’ or ‘wrong’ answers:

“What do you think the world would look like from a bird’s eye view?”

“How has the wind changed our outdoor area over the year? How might it have changed the wider landscape of our country?”

“What would it be like to travel through space?”

3: Emotions

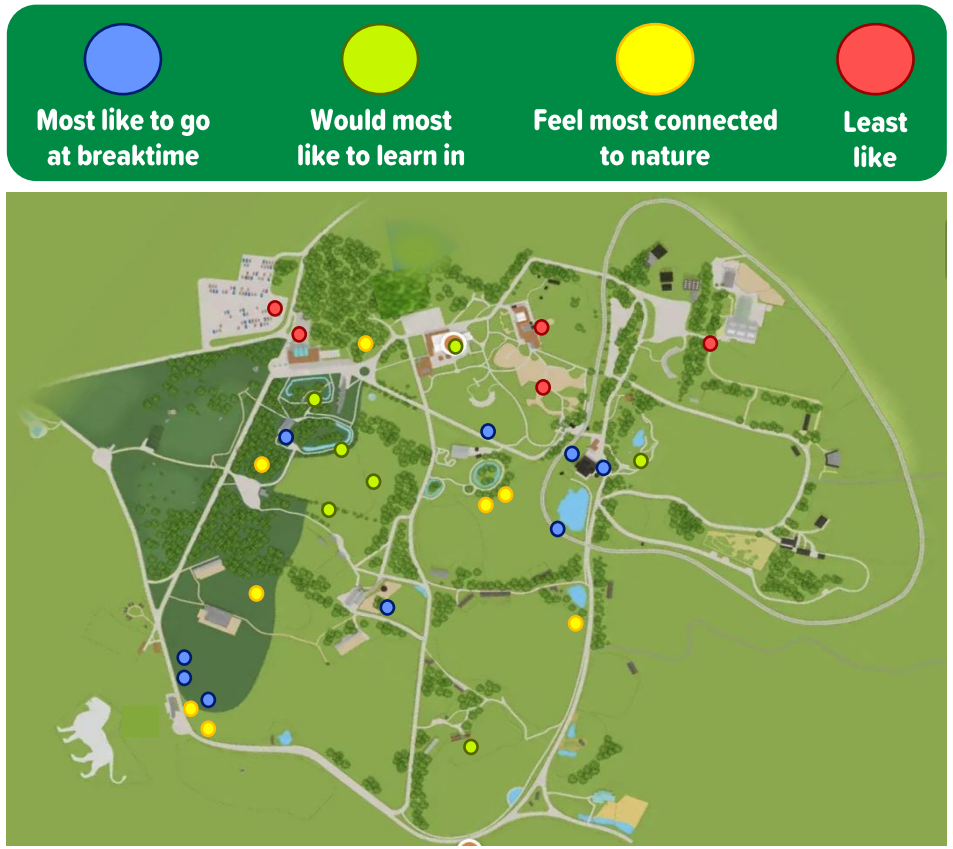
Identifying quiet calming spaces

Nature can be as a tool to support pupils with self-regulation and increase their connectivity with nature.

Ask pupils which areas of the school grounds matter to them most and consider access and any additions that could be made to these spaces.

The image opposite is inspired by a photovoice map conducted by St Mary's Academy, recreated on a map of Whipsnade Zoo. The recreation uses the same categories as those considered by the pupils of St Mary's Academy.

St Mary's Academy, a biophilic school, has reported that expanding pupils' access to nature has had positive effects on both self-reported life satisfaction and academic results.

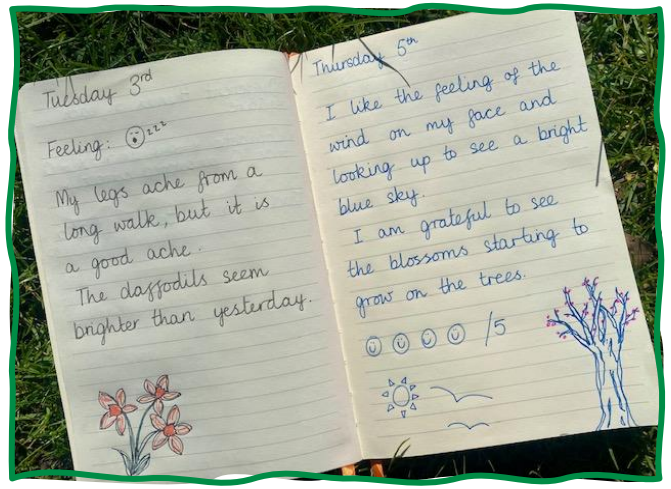


3: Emotions

Journalling/drawing to process emotions

There is no right or wrong way to journal; pupils can make it as personal to them as they wish. It is also important that they feel this is something just for them; it does not have to be shared and will not be marked or graded.

For pupils who are struggling, you may want to provide scaffolds or prompts. They could create a scale to represent either their mood, appetite, energy levels or sleep. They may journal about which emotion they have felt most that day and what made them feel that way. Perhaps they want to write down something that is bothering them or to consider a moment that made them feel calm.



Journalling possibilities in an outdoor setting:

★ Free-writing thoughts and feelings

★ Emotion tracking

★ Writing about what you are grateful for – this could be in the natural world around you or a personal reflection

★ Drawing or describing the scene around you

★ Mark-making, symbols or pictorial representations

5 pathways to Nature Connectedness

4: Meaning

‘Exploring personal and cultural stories that help people to see how nature is a part of human culture’

4: Meaning

Myths and Folklore

Nature is a key part of many mythological tales where it is often personified and/or filled with symbolism. Engaging with folklore from different countries will provide opportunities to learn about what nature means to different cultures.

Head outdoors to read stories that connect humans to the environment and encourage pupils to take notice of the wonders around them.

Explain that these tales reveal how people tried to make sense of the world around them in the past and is a reminder to consider just how magical nature truly is.

4: Meaning

Books, poetry and songs

Provide pupils with books and poems that promote an understanding of the natural world, spark curiosity, and encourage empathy. It is also useful to consider books that address any worries or barriers to connecting with the outdoors, such as a fear of insects or dirt.

Music and nature have long held strong links: pupils could learn songs about the environment or listen to music that has been created using sounds of the outdoors.

You may decide to take this further with your class and create your own stories, poems, songs or soundscapes that have been inspired by your explorations of nature connectedness.

Book recommendations	Poetry recommendations
Yucky Worms by Vivian French	**The Lost Words** by Robert Macfarlane
Dear Earth by Isabel Otter	**Nature Trail** by Benjamin Zephaniah
5 Minute Nature Stories by Gabby Dawnay	**I Am the Seed That Grew the Tree** poems selected by Fiona Waters
The Oak Tree by Julia Donaldson	**Our Earth is a Poem** by various authors

4: Meaning

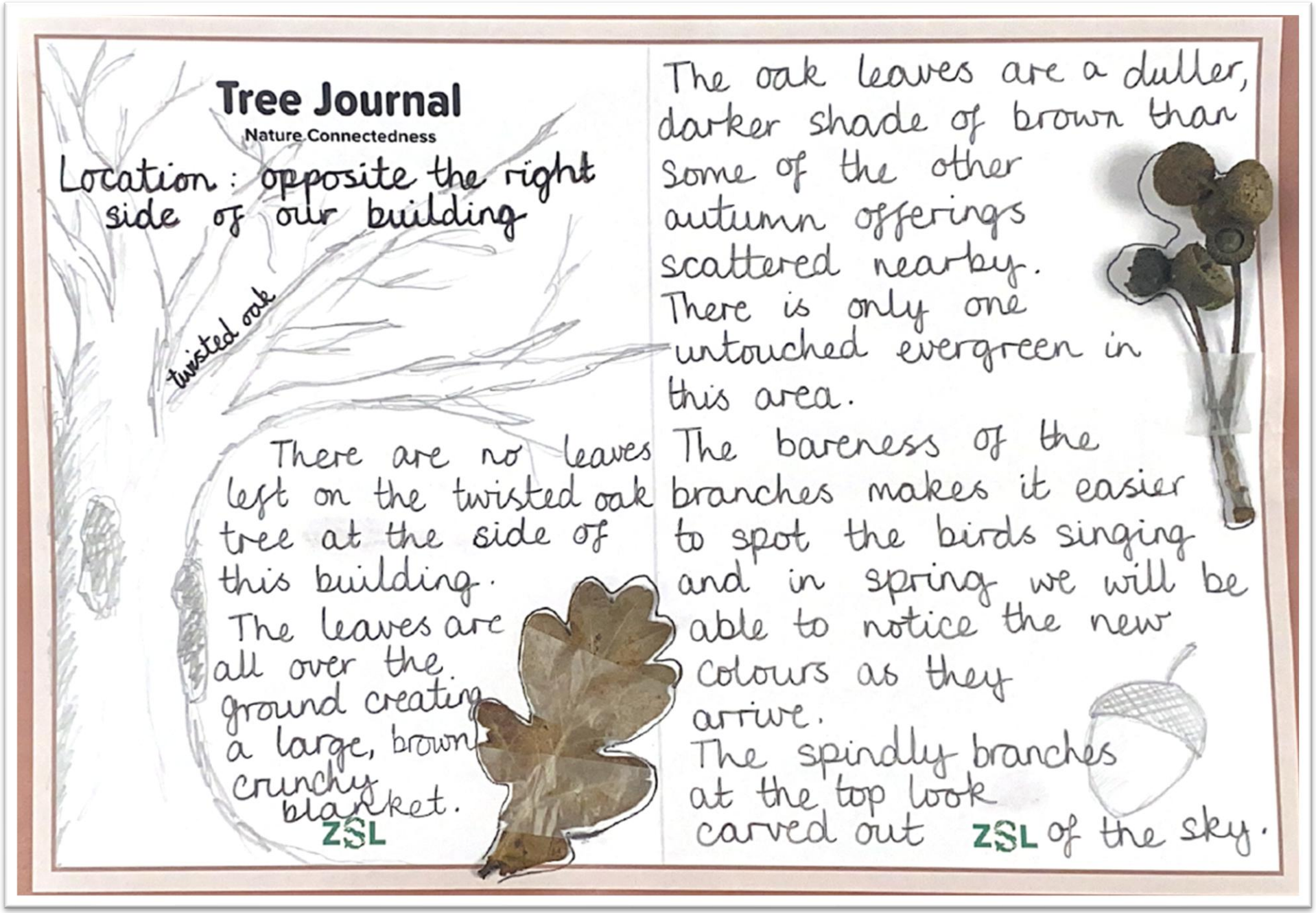
Tree journalling

Tree journalling helps pupils to take notice of their surroundings and make personal connections with nature.

As with personal journalling (under **Emotions**), this is not an activity that requires brilliant artistic skills or writing full of flourishes; simply a willingness to sit and observe.

It may be that pupils document and journal about the same tree over different seasons, or you may want them to observe different trees on the school site for comparative purposes.

See the following slide for an example of what tree journalling could look like.



Tree Journal

Nature Connectedness

Location: opposite the right side of our building

twisted oak

There are no leaves left on the twisted oak tree at the side of this building.
The leaves are all over the ground creating a large, brown crunchy blanket.

The oak leaves are a duller, darker shade of brown than some of the other autumn offerings scattered nearby.
There is only one untouched evergreen in this area.
The bareness of the branches makes it easier to spot the birds singing and in spring we will be able to notice the new colours as they arrive.
The spindly branches at the top look carved out of the sky.

An example of what tree journalling could look like

Tree journal template available here

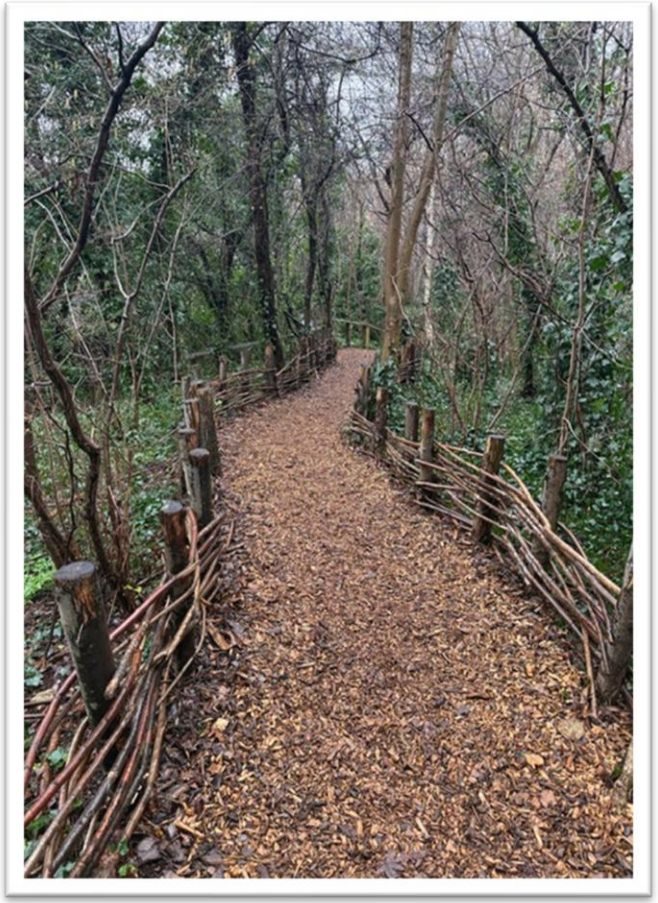
4: Meaning

Discussing feelings during a walk

Nature walks help reduce stress, promote self-regulation and enhance well-being.

Take a mindful walk, encouraging pupils to share their reflections with one another and their emotional responses to the stimuli around them. Make nature something that your class experiences and feels rather than simply observes.

You may want your pupils to use this time to reflect on something they are working towards, or other prompts or challenges of your choice.



4: Meaning

AudioMoves at the Zoo

Enjoy **Audiomoves at the Zoo** with your class: a podcast by Peut-Être Theatre in partnership with ZSL London Zoo. These can be accessed via normal podcast channels (Spotify, Apple Music, etc.) or on the **Peut-Être Theatre YouTube channel**.

The episodes are 15-20 minutes long and start with a Q&A session before moving into a movement activity. Each episode focuses on a particular animal, with the questions submitted by primary school children and answered by a keeper. The movements are then linked to the focus animal.

You may wish to listen in instalments or skip to the actions for a class movement break.

For a more in-depth exploration of each episode, there are **8 related teacher packs** which include lesson plans in English, Science and Dance for KS1 and 2.

4: Meaning

Wildlife dance/yoga

These resources from **Wildlife Watch** use the natural world as inspiration for dance and yoga movements:

- **How to dance like wildlife**
- **How to do wildlife yoga**

Perhaps your class could come up with some of their own wildlife-inspired movements?

5 pathways to Nature Connectedness

5: Compassion

‘Looking after nature helps you care more about it’

5: Compassion

Watering school gardens

Provide pupils with hands-on opportunities to care for nature.

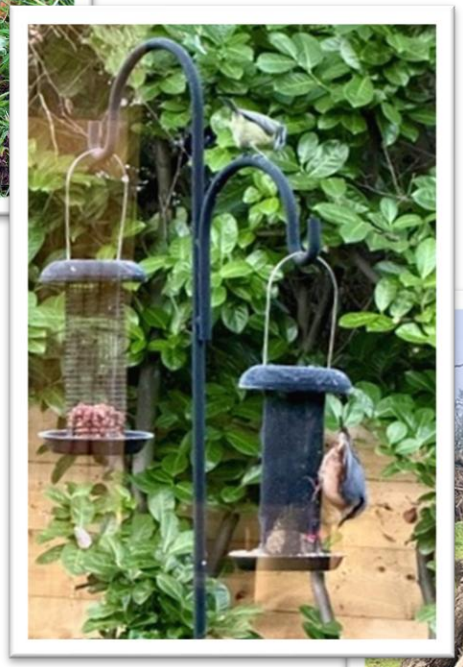
Even creative use of small spaces can provide opportunities for nature connection: if you don't have access to a school garden, nearby park or similar outdoor space, a plant on a windowsill can be just as effective.

Making this part of the pupils' routine will promote a sense of responsibility and deepen their personal connection with the nature around them.

5: Compassion

Feeding birds and bug hotels

Involve pupils in small environmental projects like creating their own bug hotels and monitoring bird feeders. This could be part of a cross-curricular D&T project, making use of recycled materials.



Encourage pupils to research which insects and birds they might expect to attract. Pupils can then observe which species show up!

This sort of structured engagement will allow pupils to become nature ambassadors on your school site. It may also encourage them to seek out further opportunities to take similar action in their wider environment.

5: Compassion

Litter picking

In a similar way that you may challenge pupils to pick ten pieces of rubbish off the floor after a messy art project, give them 5 minutes to collect at least one piece of litter from your outdoor area and recycle it or put it in the correct bin.

If you have litter pickers, you may want pupils to use these in small groups. Otherwise, remind pupils to be careful when collecting rubbish and not to pick up anything sharp or harmful with bare hands.

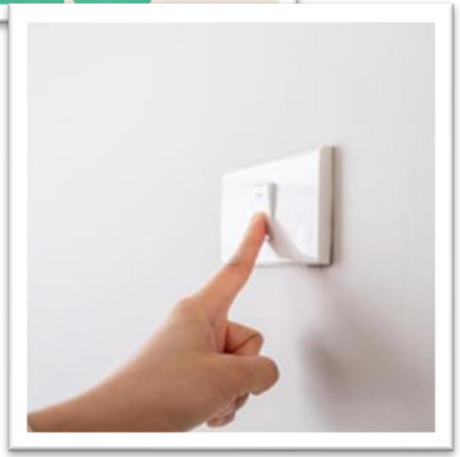
Activities like this will help encourage pupils to feel a sense of pride about the appearance of their outdoor space and have the bonus of making it more appealing for everyone to spend time in!

5: Compassion

Pro-environmental behaviours

Ask pupils what actions they already undertake to help nature. Encourage them to consider what things they can do personally as well as with the adults in their home:

- Walking instead of driving
- Using recyclable bottles/bags
- Turning off lights and other electrical switches when not in use
- Recycling paper, plastic and other possible materials
- Conserving water by turning off the tap while brushing teeth and taking shorter showers
- Eating less meat/more seasonal produce



5: Compassion

Pro-nature conservation behaviours

Outdoor activities that have a positive impact will empower pupils to better understand environmental issues and the role they can play to mitigate these.

- Creating homes for wildlife
- Planting seeds
- Making accessible spaces for small mammals, such as ‘hedgehog highways’
- Putting out food and water for animals
- Letting areas grow wild
- Using pollinator-friendly plants
- Practice ‘leaving no trace’ when visiting parks, woodlands and other outdoor areas

The information and guidance provided by ZSL are intended for educational purposes only. Responsibility for the safety and supervision of pupils remains with the school and its staff at all times. Teachers should only undertake activities that are appropriate to their setting and must ensure that all activities are planned, risk assessed, and carried out in accordance with their school's policies, procedures, and safeguarding requirements.