

WAYS OF LISTENING: BIRDSONG IN SCIENCE, MUSIC AND POETRY

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(How to Use: Guidance for Teacher and, Educators)

[SLIDE 1] Hello and thank you for coming to the launch of ‘Ways of Listening: Birdsong in Science, Music and Poetry’. In this presentation, I’ll give an introduction to the resource and some of the ideas behind it, and I’ll also offer some practical guidance for teachers and educators on how to use the resource in the classroom or any other educational setting.

[SLIDE 2] This project began some years ago when I organised a visit to listen to nightingales at RSPB Highnam Woods in Gloucestershire. This event invited scientists, philosophers, musicians and poets to come along and share their knowledge about this most elusive of singers. It included the musician and philosopher David Rothenberg and was made into a programme about nightingales for BBC Radio 4.

Following this event, I started to think about organising a series of guided walks for schoolchildren. My inspiration here was Charlotte Smith, Mary Wollstonecraft and other writers of ‘natural histories’ for young persons in the eighteenth and nineteenth centuries, when natural history was at its zenith and became enormously popular in the UK. What struck me about these beautiful books is that, as you can see from the image here on this slide, scientific facts about birds appear alongside drawings and also quotations from the poets. I became really interested in how the arts and the sciences come together in these texts, in ways that undoubtedly appeal to young readers (then as now), but also, I think, get the arts and sciences talking to each other in interesting ways. I want to stress that I don’t see poems and pictures of birds as mere decorations or embellishments in these texts (as lovely as they are). I think the arts and humanities have a much more important role to play in environmental education, which I’ll talk about in a little more detail later.

With support from the Environmental Humanities research cluster at the University of Bristol, I worked closely with local schools and the Avon Gorge and Downs Wildlife Project to design a series of walks for young people in Bristol.

Following this, and with funding from the Wordsworth Trust and the British Association for Romantic Studies, in 2020 I organised a second series of walks for young people with special educational needs and disabilities (SEND) in Cumbria. A group from Cockermouth School came on a walk with me and undertook these activities in connection with a personal development qualification that they were undertaking with the charity ASDAN. And I wanted to flag this up as one of the ways in which I think this resource might be put to good use. The qualification with ASDAN was all about connecting with nature and developing skills in communication and self-expression in ways that obviously tie in extremely well with this project.

My time at the Lake District was sadly cut short due to the Covid-19 pandemic: schools closed and I was unable to run the planned activities that I’d arranged with young people in Cumbria. And this was a real tragedy, I felt, because, though I couldn’t be there in person, these activities seemed perfect for lockdown. One of the positives of this pandemic has been that we’ve all been exploring our own local areas a lot more and listening to birdsong. So I applied to Creative Scotland to create a podcast-style learning resource—instead of coming on a walk with me, young people would be able to listen at home with their families or at school with their teacher and then go for a walk in their own local area. So that’s the background or story of how all this came about.

[SLIDE 3] RATIONALE:

Re-engaging with the natural world has never been more urgent, and the central aim of this resource is to get young people listening and responding to the world that surrounds them. In ‘Nature in the

Active Voice' (2009), the philosopher Val Plumwood argued that the climate crisis cannot be resolved through a mere 'narrow focus on energy substitutes'; instead, she insists, 'we need a thorough and open rethink which has the courage to question our most basic cultural narratives.' As Kate Rigby has further emphasized, literature can and should play a vital role in this 'deeper questioning' of the 'prevailing cultural assumptions, perceptions and values' that have historically shaped our responses to the world in which we live. In introducing young people to the different ways that scientists, musicians and poets have sought to understand the everyday mystery of birdsong, this learning resource seeks to foster alert and critical minds able to analyse, and robustly critique, how we have historically thought and written about the natural world—and understood our own place within it.

LEARNING OBJECTIVES:

There are two different versions of this resource: one for the very young children (Primary 2-3/Key Stage 1) and one for older school pupils (12 years and up). And I'll talk about how to adapt the resources for different age groups and levels of ability later on). For the older pupils, the learning objectives are:

[SLIDE 4]

1. To identify birds by their sounds, and develop natural historical skills in listening, observing and recording. These are the kinds of skills that in the past led to the groundbreaking scientific discoveries of natural historians, scientists and conservationists, such as Gilbert White, Charles Darwin and John Muir. Though they have sadly fallen into disuse, these skills are more important now than they have ever been: the idea here is to give young people the skills to *notice* and recognise the changes that are taking place in their environment now (particularly as a result of climate change and the biodiversity crisis).
2. The second objective is to analyse and compare representations of birdsong in science, music and poetry. As I mentioned earlier, I'm interested in the way that the arts and sciences are brought together in those old eighteenth-century texts. While the arts and sciences are neatly divided up on the school timetable and the university syllabus, this resource takes an interdisciplinary approach. When you draw together and *compare* representations of birdsong in science, music and poetry, you can start to understand a bit more about what makes your own approach special or unique—what poetry can and cannot do, and how it differs from a piece of music or a scientific analysis, and vice versa.
3. The third objective is to get students thinking critically about how human beings have historically thought and written about the natural world. This is where I think the arts and humanities really come into their own. A central aim of this resource is to get young people to understand how our cultural attitudes and preconceptions shape how we respond to the natural world—all that we 'half perceive, and half create' (in Wordsworth's famous phrase). To give you an example of this. Although the nightingale's song has often been described by poets as 'melancholy', this description tells us more about the poet's own state of mind than it does about how the bird may be feeling. Once you introduce this idea to students (that human beings are always projecting our own ideas and feelings onto nature), you can really start to *question* and do battle with many of the human-centred attitudes that have contributed to a biodiversity crisis in which one in eight species of birds now face extinction.
4. Students are also asked to respond individually and creatively to the song of birds. Responding creatively to birdsong increases awareness, attention and focuses the mind on its object. As they grapple with the monumental task trying to *translate* birdsong into their own words, students are further encouraged to explore that complex relationship between word and world, between poetic form and the sights and sounds it seeks to portray.

[SLIDE 5] For our younger audience, the learning objectives are a little simpler. The objectives here are to encourage young learners to

1. Listen to nature, and start to get to know birds by the sounds they make. By listening to how owls, crows and swallows sound, these activities further seek to awaken curiosity, and to develop auditory skills and memory functions crucial to their development at this stage.
2. The second objective is to develop a degree of empathy with other creatures—to imagine other modes or ways of being.
3. And, lastly, to encourage young learners to respond creatively to the song of birds. Activities include learning to hoot like an owl and creating a sound-map, which was the brilliant idea of Mandy Lievers at the Avon Gorge and Downs Wildlife Project and which you can see here on this slide. Though ideal for the very little ones (whose writing skills are only just developing), I've found this activity is great to do with all ages, because it's such an interesting way of thinking about sound. Personally I don't think we do enough of this kind of thing as we get older.

[SLIDE 6] WELLBEING:

These activities are also designed to support students's general wellbeing **[SLIDE]**. As parents and teachers know all too well, we do have a mental health crisis among young people at the moment. I was listening to the debates recently and there was a lot of very important discussions going on about mental health care provision and waiting lists. But I was a little disappointed not to hear so much being said about the *causes* of the mental health crisis or *why* so many of our young people are suffering in this way. The causes are big and complicated. Far too complicated for me to fully go into here. But I believe that there is a very clear link between the mental health crisis and the environmental crisis. And the evidence supports this.

Numerous studies have emphasised how important interacting with the natural world is to our human wellbeing. A 1984 paper by Roger Ulrich showed how a view of nature from a hospital room could dramatically improve a patient's recovery rate. As many have found comfort in listening to birdsong during this pandemic, Eleanor Ratcliffe (a lecturer in environmental psychology at the University of Surrey) has been exploring how these sounds may serve to restore attention and alleviate stress. As poets such as Wordsworth have been saying for centuries, and as the research now confirms, 'interacting with nature improves memory functions, reduces depressive symptoms, and enhances creative abilities. It also diminishes feelings of isolation by making us feel more connected with the world. Nature provokes a sense of curiosity and wonder, and fosters a sense of value for ourselves, others, and the world—all of which helps us live more meaningful lives. Spending time in nature makes us feel more grateful for all the benefits it offers us and instils an urge to protect it. With the rapid decline of biodiversity worldwide, exponential rate of plastic pollution and climate change looming over us, this is important now more than ever.'

This is perhaps the most critical aim of this resource—to improve the general wellbeing of our young people at a time when they need it most.

GUIDANCE FOR TEACHERS:

These are the main ideas and principles behind this resource. I want now to offer some more practical guidance to teachers on using the resource in the classroom.

MATERIALS:

[SLIDE 7] For this activity, you'll need access to an outdoor space where you can go on a walk with your students. This could be a local nature reserve or a trip out somewhere (which can be a very fun and impactful experience for students), or it could just be a walk to a local park or other green space. One of the points that I want to get across to young people is that you don't have to go way out into the countryside to experience nature. The idea is to get young people alive and awake to the wildlife that's on their own doorstep. In the past, we've gone to hear birds singing at Dove Cottage in Grasmere and at Brandon Hill right in the centre of Bristol. And the Water of Leith in Edinburgh is full of goldfinches, herons and even a kingfisher (if you're lucky). Those places where there's lots of cover, hedgerows and bushes are always very popular with birds. On the slide you can see some common urban visitors, with the heron on the Water of Leith.

The best time to hear birds singing is in springtime, very early in the morning and then as the sun sets in the evening. But you don't need to get your students up at 5 am. You can if you want to. But it isn't necessary. We've run walks at different times of day in the past and the birds have never let me down.

You'll also need the worksheet and the audio: both of which are available on the website (waysoflistening.net) which is now up and running.

[SLIDE 8] AUDIO FILE:

12 years and Up

As you can see from the two images here on this slide, the audio is formatted slightly differently for the different levels. For 12 years and up [which you can see here on the left], the audio is presented in the conventional podcast style. It's one continuous piece of audio. Students can listen at home or at school with you and then go for a walk, or they can put some headphones on and listen while they're walking. It's designed to leave those options open.

P2-3:

For the little ones, I've organised it slightly differently. You can see on the right hand-side here that I've made a playlist with individual tracks, rather than one continuous piece of audio. This is to make things easier for you to navigate and to adapt for your students: with the very young ones, you may want to rewind tracks and play them again multiple times, for example. So it's designed to give you that additional flexibility. For obvious reasons, I think you're best off listening to the playlist all together and then going for a walk (as I wouldn't recommend or expect them to go off on their own with headphones at this stage).

[SLIDE 9] WORKSHEET:

The worksheets [Slide] are presented as pdf files which you *can* print off for your students, although the easiest, cheapest and most environmentally friendly thing to do would be to put this up on a big screen for them as slides. You could then just give them some paper and a clipboard or a piece of strong card to take outdoors with them (as they'll need something fairly robust to lean on when they're outside).

ACTIVITIES:

[SLIDE 10] As you listen...

Both worksheets include a number of creative learning activities appropriate for their level. Some of the activities are done while students are listening [Slide]: for example, both resources include a task where students are asked to 'Match the Birds with the Sounds'. Students listen to the birds. Then I play the sounds again in a different order and they try match the birds with the sounds. For both levels, I've tried to use a good mix of common garden birds that they will likely hear on their walk and some more rare and endangered species, that they may sadly never have the chance to hear in the wild. Not if things don't change, anyway.

[SLIDE 11] On your walk

Some of the other activities are for students to do when they're outside: for example, the sound map and the listening task (where students are asked to find somewhere quiet to sit outside for a few moments, and listen).

Based on past experience, I would also say that it is very nice to read the poems outside. You could re-read some of the poems included on the resource or you could choose other poems that you would like to teach or that are included on your school's syllabus. And you could either read them yourself or you could ask the kids to read them. We had some good fun with the group from Cockermonth, who enjoyed reading John Clare's rendering of the nightingale's song (tweet tweet tweet, jug jug jug, and so

forth). When you read the poems outside, you can also get that contrast between the sounds that students are actually hearing on their walk and how those sounds are represented in the poems themselves.

[SLIDE 12] At home or at school...

The resource also includes a number of ‘expansion’ activities or projects that students might do with you in classroom or at home over a number of days. For example, the little ones have a wee project where they choose their favourite bird and find out all about it: where it lives, what it eats, what it looks like, how it sounds and what they think the bird is saying.

For 12 years and up, the ‘expansion activities’ are a bit more complex.

For example, students are asked to keep a Natural History Journal recording all the things they see and hear in their local area. You could set this as an extended project for them to do at home over a few days or even weeks. You could also make this quite multi-media—the journal might include notes, poetic quotations, drawings and photographs that you could encourage students to take using their mobile phones. My personal feeling is that technology is here to stay, and the question is how we harness and use that technology to deepen young people’s engagement with the natural world. And this may be one way of doing that.

There is also a music project, a science project, a critical essay and some creative writing tasks. The expansion activities are where I’d invite you to do adapt the resource and do your own thing with it. There is potentially a whole music lesson in here where you could get students experimenting with drumming like a snipe or whistling like a blackbird, and so forth.

ADAPTING THE RESOURCE:

The ‘expansion activities’ are designed so that the resources may be easily adapted for different age groups and levels of activity. The resource for 12 years and up is especially aimed at Senior 1 to 3 or Key Stage 3 pupils (ages 12-15), as older pupils are increasingly focused on preparations for national examinations in the spring term. However, in the past these activities have been successfully adapted for a wide range of levels, including GCSE or National 5 pupils and even postgraduate students at university. In order to adapt the resource, teachers can simply assess the critical essays, creative work and other outputs according to the set marking criteria for their students’s level: an essay for an English GCSE or Scottish National 5 should be assessed according to the marking criteria for that level, while an essay by a postgraduate student at university should be assessed according to the higher criteria for that level. Depending on the group and level of ability, teachers may also wish to provide additional support and guidance with some of the creative writing and other activities.

As lockdown eases over the summer, the activities may also be used by families together at home. They might form the basis for a fun day out for children, parents and grandparents as we start to get together again over the summer. Depending on how the resource is being used (whether in the classroom or as an extra-curricular or family activity), it may be a case of simply listening to resource and going out for a walk together, perhaps doing the sound-map activity and discussing a few of the poems on the walk.

[SLIDE 13] CREATIVE GALLERY:

I have also made a creative gallery on the website where students can share any of their sound-maps, poems and other creations. So do get in touch if you’d like me to upload anything to this page. It might be quite nice for students to see their work published online and to see the works of others. And here on this slide you can see a few sound-maps by a group of young people from Bristol.

[SLIDE 14] LOOKING AHEAD

My hope is that this project will lead to other things: if the format works, I’m keen to develop similar podcasts that might focus on specific authors (William and Dorothy Wordsworth, for example), or explore other kinds of wildlife and natural phenomena.

I also wanted to mention here the writer and broadcaster Mary Colwell, who led a successful campaign to establish a new GCSE in Natural History in England. That campaign partly inspired this project. The resource could certainly be used by students undertaking the new GCSE.

If you'd like to find out more about this project, there are also some publications coming out this year and next: together with Sophie Thomas (a teacher in Bristol), I co-authored an article describing our work on this project which due to appear in *Poetry and Sustainability in Education*. A lesson plan is also coming out later this year in another volume, *Literature for Change: How Educators Can Prepare the Next Generation for a Climate Changed World*. My own book *Birdsong, Speech and Poetry* (which underpins these educational activities), is also due to appear next year.

I was speaking to David Rothenberg and he very thoughtfully suggested that there may also be a book for young people to come out of this. I did ask some of our up and coming poets to do some poetry readings on the podcast. I'm keen to get moving on this and put together a proposal in the next few months.

And finally, if you like the resource, please do spread the word and share with any colleagues, contacts, friends or family members who might be interested in putting them to good use. That's what they're there for. Thank you.