

Using Indigenous and traditional stories to teach for climate and ecological action

Caitríona Ní Cassaithe and Anne Marie Kavanagh

Caitríona Ní Cassaithe and Anne Marie Kavanagh explore how herbs and wild plants were and are used to create natural remedies. They use archive material and oral history to promote and explore indigenous voices. They suggest how this could be applied and developed within your own communities. They also make use of traditional stories as engaging resources. The aim of the article is also to promote engagement with the natural world.

Introduction

Our human behaviours and actions are damaging the earth's climate and ecology in unprecedented ways. Given climate scientists' pessimistic predictions for our planet's future, it has never been more important for us to rethink our relationship with the natural or other-than-human world (Charles & Cajete, 2020; Lenton et al., 2019). In many parts of the world, particularly the Western world, these relationships are shaped by unjust systems such as capitalism. Capitalism commercialises the other-than-human world and sees the planet and its resources as human property to be exploited and sold for profit (Hernandez, 2022). In this understanding, humans are viewed as both separate from and superior to the other-than-human world, rather than existing as part of it (Hernandez, 2022).

While the Fridays for Futures and #WeAreRising movements demonstrate young people's capacities for political engagement, grappling with issues of climate and ecological justice remain intellectually and emotionally challenging for teachers and students (Bryan, 2022). So how can educators support students to navigate difficult and unsettling knowledge in age-appropriate ways?

In this article, we propose that stories, particularly traditional and Indigenous stories that challenge Euro-western ways of being and thinking, may be part of the answer to this complex question (Kavanagh, 2023; Kavanagh and Ní Cassaithe, 2024). These stories, when carefully selected, can give students alternative insights into how we might develop a more just relationship with the other-than-human world through forming relationships that are characterised by respect and reciprocity, rather than greed and exploitation (Kavanagh and Ní Cassaithe, 2024). In centring these stories, we also seek to elevate the knowledge systems of Indigenous and marginalised peoples.

What is traditional and Indigenous knowledge?

Traditional and Indigenous knowledge is deeply rooted in the wisdom passed down through generations within Indigenous communities, and is generally characterised by a deep and respectful connection to the land that emphasises reciprocal relationships between people, plants, animals, natural phenomena and landscapes (Kavanagh & Ní Cassaithe, 2024). It is often found in the stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local languages and agricultural practices of Indigenous communities (Hernandez, 2022). This knowledge can include cultural values, medicinal expertise and a unique worldview that recognises the interconnectedness of all living things.

When using Indigenous stories in the classroom, it is important that teachers themselves are aware of the main differences between Indigenous and Euro-western knowledge systems, as this will help them in the selection of stories to use and ways to use them in their classrooms (see Table 1 for a brief overview of these differences).

Table 1: Indigenous and Euro-western knowledge systems

Aspect	Indigenous knowledge systems	Euro-western knowledge systems
Sources of knowledge	Ancestral wisdom, nature, community	Scientific and empirical research, academic institutions, experts
View of knowledge	Equal weight to practical and spiritual knowledge	Emphasis on empirical, measurable knowledge
Transmission	Orally from generation to generation	Formal education, written texts, research
Relationship to nature	Holistic – we are interconnected with nature	Anthropocentric – focused on human domination or exploitation
Understanding of time	Cyclical, often tied to natural events	Linear, often divided into past, present and future
Decision-making	Emphasis on community and consensus	Emphasis on the individual or on expertise
Flexibility	Adaptive to local contexts, evolving over time	Adherence to established methodologies

Why is Indigenous knowledge important?

In recent years, there has been a growing acknowledgement that Indigenous or traditional forms of knowledge, where relationships with the land, animals and plants are encouraged and respected, have a particular role to play in understanding and addressing ecological issues (UNESCO, 2023). Yet despite the wealth of cultural wisdom and environmental knowledge that these ways of knowing can offer, they are often excluded from mainstream environmental debates.

Traditional medical knowledge

In this article we focus on one particular form of knowledge – traditional medical knowledge (TMK) – as a way to explore ecological issues related to sustainability and climate and ecological action. TMK involves the use of sustainable resources, that are available in the locality, such as herbs and plants, to respond to the needs of the community (Dolan, 2007). TMK stresses the importance of respecting and preserving nature, as many healing plants are integral to ecosystems. By highlighting the interdependence between people and the natural environment, TMK provides insights into responsible resource management, ethical harvesting practices and the need for biodiversity conservation.

An understanding of traditional medical knowledge not only enriches students' understanding of ecological

systems but also fosters a sense of respect and responsibility for the environment and the broader world around them. Additionally, learning about traditional medicine across different communities introduces children to cultural diversity and deepens their appreciation for the wisdom passed down through generations.

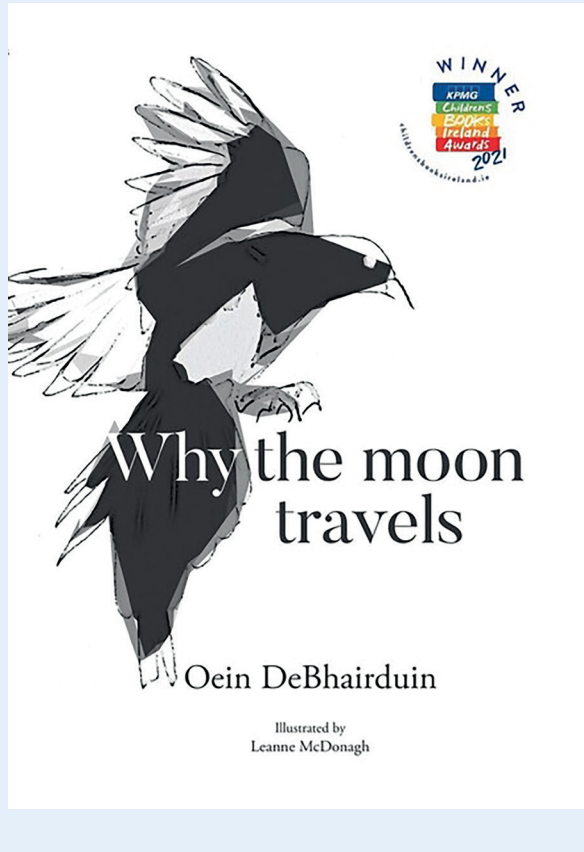
Traditional medical knowledge in an Irish context

In Ireland, herbal traditions were heavily relied upon in the past but are one example of a way of knowing that has been eroded from mainstream Irish society. Respect for nature and close relationship to the land, however, is very strong in Irish Traveller culture, particularly in regard to the healing qualities of herbs and plants (DeBhairduin, 2020). These cures were once popular throughout the island of Ireland but are still preserved by many Irish Travellers (or Mincéirs in their own language). Mincéirs are an ethnic minority, indigenous to Ireland, who share a common history, language (Cant, Gammon or Shelta), cultural heritage and tradition of nomadism (Joyce, 2018).

Folklore is embedded in the culture of the Mincéirs, and Oein DeBhairduin's anthology *Why the Moon Travels* (2020), a collection of beautifully curated stories that have been passed down orally by members of the Mincéir community, contains 20 folk tales

Resource A

Why the Moon Travels by Oein DeBhairduin, Skein Press
<https://skeinpress.com/product/why-the-moon-travels-by-oein-debhairduin-copy/>



that give rich insights into the interconnectedness of the human and other-than-human world, as well as uncovering alternative ways for students to understand and appreciate the spaces around them (Resource A).

Using Indigenous and traditional stories to teach for climate and ecological action

The following activities concentrate on examples from Ireland but can be adapted to many other contexts. For example, children can look for medical/herbal myths and legends from other cultures or traditional medical remedies passed on through their own families or communities. They can also seek out herbal plants indigenous to their local area and research how these might have been used in the past. Each activity is framed by an enquiry question (EQ).

EQ: What is traditional and Indigenous knowledge?

Teachers can begin by exploring the differences and similarities between Indigenous and Euro-western knowledge systems with children. The purpose here is not to create binaries but to challenge children to

think in other ways about their relationships with the planet. This link provides an overview of Indigenous and Euro-western knowledge systems www.youtube.com/watch?v=hsh-NcZyuil. While watching the video, children can work in groups to complete a Venn diagram or create a table to compare and contrast knowledge systems.

EQ: What can traditional and Indigenous medicine origin stories tell us about the natural world?

Following this, children can read or listen to a variety of stories related to the origin of medicine across a variety of cultures. Many of these share similar themes, which emphasise reciprocity, the interconnectedness of all living beings and the respectful use of nature's resources (e.g. for healing human ailments). 'Airmid's Voice' is one of the tales in Oein De Bhairduin's collection. It is a retelling of the legend of the healing goddess Airmid, who taught the Mincéirs about the bio-medicinal value of native herbs in healing. This story offers rich opportunities for reflection on the unique and rich diversity of the natural world but also on the intergenerational connectedness to nature on which the Mincéirs still draw today.

In Irish mythology, Airmid and Miach were the children of Dian Cécht, who was the god of healing. Dian Cécht was jealous of Miach's superior healing abilities. In a fit of rage, Dian Cécht killed Miach. Airmid grieved for her brother and one day, while visiting his grave, she discovered it was covered in healing herbs, each corresponding to a different part of the human body. As she gathered and arranged the herbs according to their healing properties, Airmid was interrupted by an angry Dian Cécht, who scattered the herbs to prevent her from surpassing him in knowledge. From that day on, Airmid wandered the roads of Ireland looking for the lost herbs and it was there, it is said, that she met with the Mincéirs and taught them the ways of herbal medicine (DeBhairduin, 2020).

EQ: What plants are used in traditional and Indigenous herbal cures?

Drawing on the story, children could be asked to help Airmid recapture some of the cures that have been lost. This could be done in a number of ways. Children could match herbs and medicinal plants to their cures using images and texts or even QR codes (see: www.canva.com/qr-code-generator/ for one free method of generating codes).

Alternatively, using the the Seek app by iNaturalist (for Android and iPhone), which uses image recognition technology to identify plants by pointing a camera at them, children can go outside to identify plants in their locality (www.inaturalist.org/pages/seek_app) and then research their medicinal benefits.

Resource B

The Seek app by iNaturalist (for Android and iPhone) uses image recognition technology to identify plants and animals. Just point the camera at any organism and it will work to identify it.

www.inaturalist.org/pages/seek_app



EQ: What cures did people in the past use to treat common ailments?

One way of doing this is to have children search The Schools' Folklore Collection at www.duchas.ie. Described by Koay et al. (2020) as an early example of citizen science, the Schools' Folklore Collection is a collection of stories and folk tales collected by primary school children throughout the 26 counties of the Irish Free State from 1937–39. As part of the history curriculum for those years, children were tasked with documenting, through interviews with older members of their local community, the folklore, traditions and stories of their own region. The Schools' Folklore Collection is a fantastic repository that contains herbal remedies and local cures that were used in the past. These stories, often collected from participants in their 70s and 80s, shed light on life in much older times. The historical knowledge gathered by these children provides us with a huge repository of traditional medical knowledge that gives a unique insight into the beliefs, practices and worldviews of Ireland in the past.

Using enquiry frames such as the one included here, children can search the Schools' Folklore Collection in order to answer the enquiry question. They could also look at whether these cures are still used today, and if not, what has replaced them. They could also interview

Resource C

The Schools' Folklore Collection

www.ucd.ie/folklore/en/collections/schoolscollectionduchas/



Resource D

Enquiry frame (designed by Caitríona Ní Cassaithe)

Enquiry Question: What cures did people use in the past to treat common ailments?				
Ailment	Cure	Application	Is this cure still used today?	Type of cure (magic, religious, transference, mineral, herbal, mixed)
Nettle Sting				
Rash				
Lumbago				
Sprain				
Heartburn				
Corns				
Stomach ache				
Bronchitis				
Whooping cough				
Chilblains				
Rickets				
Warts				

family or community members about any medical cures they may know of to create their own repository of information.

EQ: What herbs and plants can we grow in our medicinal herb garden?

Growing a herb garden (or even a herb patch) within the school environment can provide a unique and practical way for children to explore traditional medical knowledge by allowing students to investigate the rich heritage of medicinal plants. By cultivating a variety of easy-to-grow herbs such as chamomile, marigold, thyme, parsley, peppermint, garlic and lavender, children engage in hands-on learning for sustainability and ecological action, as well as an exploration of traditional uses of these plants in various cultures. In this regard, the herb garden can serve as a living archive of traditional healing practices that connects children to the wisdom of their ancestors. In this way, a herb garden becomes an educational tool to bridge the gap between nature, traditional knowledge and modern understanding. We could also link here to considering what herbs and plants were used in Roman, Anglo-Saxon and Viking periods.

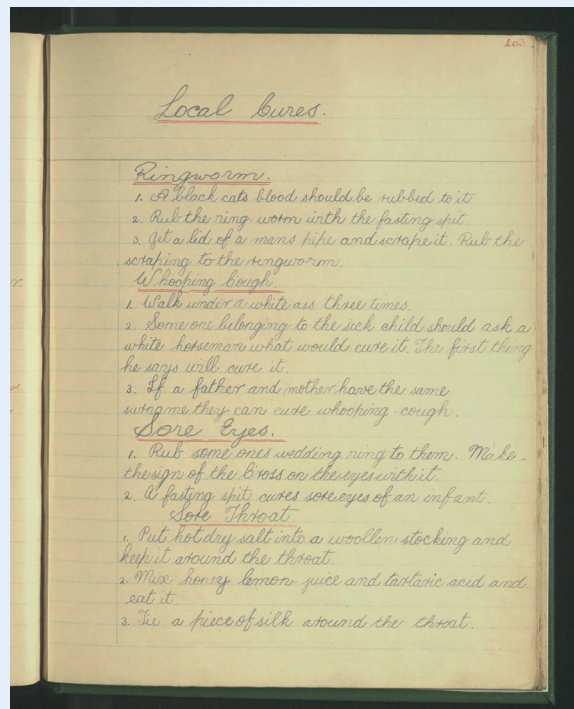
Resources for other nations can be found here

<https://museum.wales/articles/1119/Old-cures-Amgueddfa-Cymrus-Historic-Medicine-Collection/>
www.wildernessscotland.com/blog/folklore-scotlands-plantlife-scottish-medicinal-plants/
www.nms.ac.uk/explore-our-collections/stories/scottish-history-and-archaeology/recipes-remedies-and-charms/

<https://englandexplore.com/strange-folk-remedies/>
<https://explore.library.leeds.ac.uk/special-collections-explore?archiveEarliest=1800&subjectIndex=traditional%20medicine>

Resource E

Duchas Collection www.duchas.ie
 Selection of cures:



Conclusion

Bringing about climate and ecological justice necessitates changes to unjust structures and systems and to our collective understanding of and relationship to the other-than-human world. Indigenous stories and folk tales, when carefully selected, can support students to recognise the ecological wisdom contained in traditional and Indigenous knowledge systems; to ask questions about why these peoples and their knowledge systems are marginalised; to think differently about how human beings relate to the other-than-human world; to engage critically with unjust structures and systems, like colonialism and capitalism; and to make connections between these and climate, ecological and social injustices. In addition, the creation of medicinal herb gardens supports a sense of connection to the other-than-human world and uncovers and reanimates the ecological and medicinal wisdom contained within marginalised knowledge systems. The power of these stories lies in their ability to suggest that we have the capacity not only to transform unjust relationships and structures but also to reimagine a more just world.

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