

Taking a Leaf out of Nature's book [KS2, 50 mins]

Learning Objective: To understand the ways that humans are similar to plants and animals.

Key Climate Knowledge: We are Nature

Understanding the importance of our connections to the 'more-than-human' world and feeling that we are part of nature, we are more able to care for the environment, for each other and for ourselves.

Assessment Statements

By the end of this session:

- ⇒ all children should practise reflective observation of nature in school spaces using plants and use spoken language to describe their thoughts or feelings.
- ⇒ all children should have some simple ways to understand their similarity to the plants and animals in the local area [e.g. breathing, sensing, mutually beneficial interaction, growing].
- ⇒ some children should be able to share their understandings and experiences with their peers about the role of nature in emotional wellbeing.

KS2 English / Science Curriculum:

- use spoken language to develop understanding through speculating, hypothesising and imagining.
- participate in discussions, consider and evaluate different viewpoints, attending to and building on the contributions of others
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
- find out about and describe the basic needs of animals, including humans, for survival (water, food and air)

Resources: Washed Leaves, Water-Soluble/Watercolour Pencils, Small tubs of water, paper

Key vocab: Composting.

Glossary

Composting = a natural form of recycling where leaves turn back into a soil-like substance called compost, providing nutrients for other things to grow.

Session plan

1. Introduction: Trees, leaves and books: [5 mins]

- a) Teacher clarifies key fact that most paper comes from trees, so in this lesson we are going to make mini leaf books and learn something from the leaves.
- b) Discuss why leaves might fall from a tree - imagine they are trying to tell us a message, like when a leaflet comes through the door.
- c) What might be the messages trees want to spread? (E.g. that trees are good for us & the planet).

2. Pair Activity: Why are trees good for humans? [15 mins]

- a) Each pair of pupils is given the Tree Fact matching activity to complete (see Appendix A & B).
- b) Following this, pupils work in pairs to think of things they have in common with trees? Teacher leads whole group sharing of these.

3. Writing leaf messages [20 minutes]

- a) Each pupil selects a leaf which they like and draw around it on a piece of paper.
- b) Using tree facts and their own ideas, pupils write a short message within the outline of their leaf which expresses why trees are beneficial to humans OR how we humans are similar to trees.
- c) Teacher demonstrates how to use watercolour pencils on leaves (See Appendix C)
- d) Pupils write messages on leaves (See Appendix D for previous examples).

4. Paired performances of leaf poems: [5 mins]

- a) Children walk around the classroom with their leaves, meet another child, put their two leaves together into a two leaf poem, read it aloud together.

5. Lesson Ending: Composting messages [5 mins]

- a) Teacher explains that they will give the leaves back into the Earth, and provide nutrients for other plants to grow in a process known as composting.








Things we have in common with trees:

Breathing, growing, needing water, sunlight and food, returning to the Earth








Taking it outside

Look for leaves which have fallen off trees outdoors and write messages from them.

Appendix A: Tree Fact matching activity – Why are trees good?

<p>Trees absorb carbon dioxide making the air cleaner to breathe, It also gives us oxygen.</p>	
<p>Trees cool streets by providing shade.</p>	
<p>Trees absorb noise so they can reduce noise pollution in busy cities and towns. This leads to less stress for people as loud noises have been linked to stress.</p>	
<p>Trees are a habitat for smaller organisms like bees. They provide food and a place to live.</p>	
<p>Trees provide food like apples and oranges in orchards and forest gardens</p>	
<p>We can see the seasons change from looking at trees. This connection to nature reduces stress levels.</p>	
<p>Trees protection us from UV radiation so we don't get sunburnt.</p>	

Appendix B: Tree Fact matching activity. ANSWERS COLOUR-CODED

<p>Trees absorb carbon dioxide making the air cleaner to breathe, It also gives us oxygen.</p>	
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<p>Trees protection us from UV radiation so we don't get sunburnt.</p>	



Appendix C: Teacher's notes

Preparation:

- Try to find leaves that have recently fallen from the tree, take a photo of the trees to aid identification.
- Enough washed leaves from trees so that all children have a choice to pick the leaf they like.
- If collecting leaves from outside is impractical you can [order some bay leaves online](#) which will work.

Using watercolour pencils to draw on leaves:

- When drawing on leaves you need to use water soluble pencils and they will need to keep dipping their pencil into water to write onto the leaves.
- Try using the back of the leaves not the front - it may be less waxy.
- Let the children understand there is no wrong answer, that they should be responding with their felt experiences and this is not a brain memory test.

Creating messages from the leaf

- Ask the children to hold their leaf and imagine that there is a message in the leaf about how the tree the leaf came from is similar to themselves. Ask them to creatively imagine that just as paper comes from trees this is a leaf from a tree's book. They might use their tree fact for inspiration or they may use something else which they know or feel towards their leaf.

Cross-curricular links

- Link to Science - mention that scientists at the University of Birmingham are researching how trees hold memory (MEMBRA [Membra – We know that trees retain a record of history – but do they have memory?](#))
- Link this to religious education, cultural history and english literature - the tree of life - [Tree of life | Meaning, Symbol, Biology, Name, & Movie | Britannica](#) exploring the 'worldview' approach in RE, can help children understand others' points of view.
- Link to PHSE Understanding the importance of more than human world helps pupils develop fully as individuals and as members of families and social communities

Additional Resources for teachers:

[Biophilic City Network](#)

[Major new study will explore if a tree's 'memory' can increase its resilience - University of Birmingham](#)

[Membra – We know that trees retain a record of history – but do they have memory?](#)

[Wood wide web: Trees' social networks are mapped - BBC News](#)

[How Trees Fight Climate Change - Woodland Trust](#)

[What do we know about how trees can cool our towns and cities? - Forest Research](#)

[Tackling Air Pollution With Trees - Woodland Trust](#)

[The best trees to reduce air pollution - BBC Future](#)

[UKS2 What Is Biodiversity and Why Does It Matter? - Twinkl](#)

[Why is biodiversity important? | Royal Society](#)

Appendix D: Images of previous leaf writing projects

