

Enquiry Question:

Does the Cemetery provide the ideal eco-system?

Objective

To find out which animals, insects, trees, flowers and fungi are in the Cemetery and how combined with the natural environment they all interact together to form an eco-system.

1 Additional resources are available to support learning activities - look for the orange number to guide you.

Equipment

- Pen or pencil
- Paper and clipboard or a notebook
- Additional resources
- Map of Sheffield General Cemetery
- Different sized rocks/pebbles or jenga-style blocks


Time - this activity can take around **one hour and a half** to complete.



Prepare

Introduce the activity. Establish what an eco-system is. An eco-system is how living things interact with each other and with the world around them. The eco-system is made up of two main groups: **Biotic** and **Abiotic**. Biotic includes plants, animals, fungi, micro-organisms, and humans. Abiotic consists of air, water, nutrients, sunlight and temperature.

As you spot things on your walk today consider which category they would belong to. This Cemetery has been here for nearly 200 years and has been a good place for lots of trees and plants to grow and animals and insects to thrive. Everything you see here has a role to play in the eco-system. As humans we have our own eco-system as our bodies are made up of lots of micro-organisms. How we look after our bodies matters to keep us healthy and what we do to our environment also matters as everything in the world is connected in some way to everything else.



Explore

Lots of the animals and insects that we know are here can be hard to find. Some animals are nocturnal, like the owls and bats, some are shy like the mice and hedgehogs, so we would be lucky to spot them. Today, we are going to look at the biotic elements that have thrived here as the area has been largely left to grow wild over the years.

Look at the map and have a discussion about a route around the Cemetery - where might be a good place to find these different things. Explain we can use our five senses as we move around the Cemetery which will help us to spot clues e.g. listen to birds and other smaller rustling sounds, smells of different plants/trees, see by looking up high as well as down low, touch and feel when finding something interesting.

Questions to think about:

- **Can you spot more looking above you or looking below you?**
- **How do you feel as you walk through the Cemetery? Why do you think you feel this way?**
- **Where is the best place to look for insects/wildlife?**

Safety reminder: Leave everything as you found it. Do not eat anything from the walk and wash your hands after picking things up. Stick to the paths and mown grass areas – graves are unstable.

Discover

Use the map to create a route to discover the biotic elements of the eco-system here at the Cemetery. You can make stops along the walk as and when you like. There are also seasonal trails you can follow. 1

Use the Cemetery Nature Spotter to see what various biotic elements you can find: minibeasts, birds, fungi, trees and flowers. Remember the Cemetery looks different depending on the time of year. 2

If you are in a large group, you could put learners into teams to look for a different biotic element or you could look for a few of each.

Share

Find somewhere to sit or stand in the cemetery park such as the story circle to discuss with the learner how discovering the trees, flowers, fungi and insects have helped with their understanding of eco-systems.

From your discoveries on the walk, what is the Cemetery eco-system like?

- **What trees did you find?**
- **What birds did you spot?**
- **Did you find any fungi?**
- **What flowers did you locate?**
- **Did you find any minibeasts?**

Since 1836, when the Cemetery first opened, the eco-system has developed. Plants like bluebells, dog mercury and cow parsley grow naturally here. These have grown in wild places for centuries. This helps us to understand that this site was once countryside and possibly an ancient woodland before it was developed into a Cemetery. These plants are what are left of that ancient woodland renewing itself. Nearly 200 years later, there are many biotic elements thriving in the Cemetery some old, some new.

Find a yew tree to point out to the learner and explain that there are special qualities of a yew tree, and this is why it is a common sight in graveyards.

The yew tree is very hardy and will grow well in most areas. Its leaves and berries are very poisonous and we think that one reason that they are found in cemeteries was to stop cattle coming in to feed and trample all over the graves. Another yew tree story is that its berries are red and its sap is white and people used to say that these colours reminded them of the body and blood of Christ. In the Middle Ages the wood of the yew tree was often used to make longbows to use in battle. It was an ideal wood because it was strong and flexible. In modern times the yew tree has been used in modern medicine to help people with cancer. So there is a lot to find out about a yew tree.

- **What does the yew tree make you think of?**
- **How can trees be helpful?**
- **Do any of the other trees remind you of anything?**



Create

Design and create your own cemetery park.

Map out the design of your cemetery park on paper or by talking it through.

What would you need to include in your cemetery park to create an ideal eco-system?

What trees, flowers or fungi would you include?

You could include some habitats. **What type of creature would you want to create a home for? Think about the conditions you would need to create to make the best habitat for the creature.**

Think about what materials you can use in the cemetery and what they might symbolise. For example, a pine cone could symbolise a monument.




Reflect

Play the eco-system game. Eventually the eco-system will collapse showing how all the different parts of the eco-system are needed and work alongside each other. Discuss the importance of a food chain and that actually the most important part of a food chain are the decomposers (all the leaves/plants/wild plants rotting) because they break down dead plants and animals and also the waste of other organisms, thus, keeping up a continuous flow of nutrients for the primary producers.

Gather back together in the circle. Remind the learners of their enquiry question and some of the concepts that may have arisen from discussion: **Does the Cemetery provide the ideal eco-system?**

After a short moment thinking time, pass a small pebble around the circle so that each learner has a chance to say a final thought about what they have discovered.

You could take photos to share with others on social media using **#learningatGenCem** and tagging **@SheffieldGenCem** 

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