

Courses are designed to deliver Curriculum for Excellence experiences and outcomes at Levels 3 and 4 as appropriate. We are always happy to tailor our programmes or design something new, please get in touch to discuss your requirements!

One topic can be completed in a day including introduction and follow up sessions, or components of two to three topics can be combined.

Programme	Outline
Investigating Forests	<p><i>Does plant diversity vary in native and non-native woodland?</i></p> <p>After constructing a testable hypothesis, students will measure plant cover, identify plants with the help of a biological key, and measure soil pH, light intensity and humidity. Data from the two forests will be compared, and students will be encouraged to explain the distribution of plant species in each forest.</p>
Distribution of Grassland Plants	<p><i>Is there a difference in plant diversity in mown and grazed fields?</i></p> <p>Pupils will sample vegetation cover, identify grassland plants and measure sward height, soil pH, light intensity and humidity. Data from the two grasslands will be compared, and students will be encouraged to explain the distribution of plant species in each field with reference to their adaptations.</p>
Freshwater Invertebrates in a Loch and Stream	<p><i>Are different communities of freshwater invertebrates found in still and flowing water?</i></p> <p>Sweeping and kick sampling will be used to collect freshwater invertebrate samples from the Aigas loch and stream respectively. Students will examine and identify the invertebrates and measure water depth, flow rate, light intensity and water quality. Comparisons between the two habitats and reasons for the differences will be discussed, considering the adaptations of individual species. Food webs will be constructed to illustrate the interdependence of living things.</p>
Worm Investigation	<p><i>Does low intensity agriculture affect the distribution of earthworms?</i></p> <p>Traditional (but effective!) worm charming techniques will be used to collect worms in fertilised and unfertilised fields. The age and species of each worm will be identified where possible, and vegetation type, soil depth and soil pH will be measured. Students will compare the data from each field and be encouraged to explain how agriculture influences soil health.</p>
Terrestrial Invertebrates	<p><i>Is there a difference in the species richness and diversity of invertebrates found in different habitats?</i></p> <p>Sweep netting, tree beating and pitfall traps will be used to sample invertebrates in woodland and grassland habitats. Biological keys and classification guides will be used to identify species, and light intensity, vegetation cover and humidity will be measured. While comparing data from the two environments, pupils will be encouraged to explain how differences in the environments will influence invertebrate distribution.</p>
Air Pollution Indicators	<p><i>How do we measure air pollution?</i></p> <p>After learning to identify some characteristic lichens, pupils investigate air pollution at the Aigas Estate. We will consider how to take representative samples and record abiotic data such as temperature, windspeed, humidity and aspect.</p>