UNIVERSITY OF LEEDS

Ecology and Wildlife Conservation

Scheme of Work

	Lesson 1	Lesson 2	Lesson 3
Length	Approx. 1 hour	Approx. 1 hour	Approx. 1 hour
Objectives	• To describe the impact of habitat loss on an ecosystem. • To identify moral and economic arguments for conserving the natural environment. • To reflect on the importance of wildlife and human impact. • To interpret different sources of information.	• To interpret different sources of information. • To recap key definitions. • To explore the human impact on different ecosystems. • To collaborate with peers to summarise the different ways humans impact on ecosystems.	• To interpret different sources of information. • To evaluate different techniques for studying organisms. • To collaborate with peers in a group activity. • To produce a brief study proposal.

Lesson plans for each session can be found on the following pages.

Ecology and Wildlife Conservation

Lesson 1 plan

<table>
<tr><th>Starter activity</th><th>Learning objectives</th></tr>
<tr><td>Answer the question: How do humans benefit from nature?

Students write answers on sticky notes or place them in a Padlet wall.</td><td>• To describe the impact of habitat loss on an ecosystem.

• To identify moral and economic arguments for conserving the natural environment.

• To reflect on the importance of wildlife and human impact.

• To interpret different sources of information.</td></tr>
<tr><th>Main activities</th><th>Resources required</th></tr>
<tr><td rowspan="6">Look at the graphic on Step 1.3 and get students to create their own definitions of the key words visible. Peer-review to compare definitions with the Glossary on Step 1.11.

Students brainstorm ideas on how reliant each level of the ecosystem is on the other organisms within it. Then read article on Step 2.3.

Go to exercise on Step 2.4 and get class to vote or predict what they think will happen if the coral reef dies. Students note down the conclusions and key points discussed as the teacher scaffolds their learning.

Watch the video on Step 1.2 getting students to note down the arguments for conserving the natural world in a table with two columns: moral argument and economic argument.</td><td>1. Access to FutureLearn course.

2. Sticky notes (if chosen method).

3. Padlet wall (optional).

4. Devices to watch video on.</td></tr>
<tr><th>Assessment for Learning</th></tr>
<tr><td>Peer-marking of definitions.

Class vote on coral reef loss.</td></tr>
<tr><th>Differentiation</th></tr>
<tr><td>SEND: Videos have subtitles.

Low ability: Peer-learning.

Gifted and Talented: Peer-teaching.</td></tr>
<tr><th>Plenary</th></tr>
<tr><td>Students return to the answers they posted in the starter activity and identify which benefits would be lost if human activity destroyed a habitat, explaining why.</td></tr>
</table>

Ecology and Wildlife Conservation

Lesson 2 plan

<table>
<tr><th>Starter activity</th><th>Learning objectives</th></tr>
<tr><td>Students create an image that represents the different between a community and a population. They can select any organisms or environments they wish.

Students peer-mark their images and give them a score out of 10 for creativity and accuracy.</td><td>• To interpret different sources of information.

• To recap key definitions.

• To explore the human impact on different ecosystems.

• To collaborate with peers to summarise the different ways humans impact on different ecosystems.</td></tr>
<tr><th>Main activities</th><th>Resources required</th></tr>
<tr><td rowspan="4">Split class into three groups to learn about different case studies; identifying the problem and its effect, and any other useful or interesting information:

1. Watch video on wind farms in Step 1.5 then look at the data in the interactive map in Step 1.6 and answer the questions.
2. Watch video on coral reefs in Step 2.2 and read article below it.
3. Watch video on bees on Step 2.6 and read article on Step 2.7.

Each group must select a format to present their findings to the rest of the class (e.g. slideshow, poster, video etc)

Debrief: each group summarises what they’ve learned to the rest of the class who make notes. The teacher scaffolds throughout to reach all key learning points. Best team presentation wins.</td><td>1. Access to FutureLearn course.

2. Devices to watch videos on.

3. Paper or technology as appropriate to present findings.</td></tr>
<tr><th>Assessment for Learning</th></tr>
<tr><td>Group summary of research shared with class.</td></tr>
<tr><th>Differentiation</th></tr>
<tr><td>SEND: Videos have subtitles.

Low ability: Peer-learning and scaffolding by the teacher.

Gifted and Talented: Peer-teaching and extension activity: read through the Case Study on Step 2.9.</td></tr>
<tr><td></td><th>Plenary</th></tr>
<tr><td></td><td>Students pick one organism of their choice (not already mentioned) and describe how humans are impacting on their survival and the survival of their ecosystem.</td></tr>
</table>

Ecology and Wildlife Conservation

Lesson 3 plan

<table>
<tr><th>Starter activity</th><th>Learning objectives</th></tr>
<tr><td>Answer the questions: How can humans impact positively on the natural world? Students write answers on sticky notes or place them in a Padlet wall.</td><td>• To interpret different sources of information.

• To evaluate different techniques for studying organisms.

• To collaborate with peers in a group activity.

• To produce a brief study proposal.</td></tr>
<tr><th>Main activities</th><th>Resources required</th></tr>
<tr><td rowspan="6">Teacher sets the scene by explaining how important it is to study an environment in order to conserve it.

Class watches video on Step 2.7 to find out about various methods of studying pollinators. Then they work through the exercise on Step 2.8 to learn how to use bioacoustics for studying insects.

Students brainstorm the pros and cons of the different methods of studying pollinators, scaffolded by the teacher.

Students work in groups of three to put together a short proposal for how to study an organism of their choice (not already mentioned). Their proposal must include: what they will record, how they will record it and what they should learn from their data.

Additional roles: One person from each team will present the proposal, another will be part of the judging panel.

The person presenting from each team is interviewed by a panel of their peers about their plan (they could be given a ‘phone a friend’ option to get support from their team). The panel decides which team wins based on how practical and ethical the proposal is.</td><td>1. Access to FutureLearn course.

2. Devices to access information.

3. Sticky notes (optional).

4. Padlet wall (optional).</td></tr>
<tr><th>Assessment for Learning</th></tr>
<tr><td>Proposal for studying environments.</td></tr>
<tr><th>Differentiation</th></tr>
<tr><td>SEND: Videos have subtitles.

Low ability: Peer-learning

Gifted and Talented: Peer-learning and assessment</td></tr>
<tr><th>Plenary</th></tr>
<tr><td>Students create a mnemonic to remember the key things for considering when studying natural environments.</td></tr>
</table>