

Lesson 3 plan : Biosecurity

Subject This lesson can form part of an English or Science lesson with curriculum links for both subjects. All experiences and outcomes are identified below.		
Phase 5-7 This lesson plan is aimed at P5-7 but could be adapted for advanced P3-4 pupils. Designed for teachers to pick and choose activities suitable for their children and adapt activities for different abilities.		
Learning Intention: <ul style="list-style-type: none"> To introduce the concept of biosecurity and what this means when applied to Orkney. To research biosecurity measures in relation to invasive species. To brainstorm project ideas to communicate with a diverse audience. 		Success criteria <ul style="list-style-type: none"> I can explain what biosecurity means I can give examples of biosecurity in relation to stoats in Orkney. I can identify important information in a text I can share my ideas with a group on a specific topic.
Key words Native, non-native, Orkney, invasive, stoat, food chains, ecosystem, biosecurity.		
Timings	Lesson structure	Resources
Video 4 mins	Starter Recap previous learning on native and non-native invasive species. Watch this Youtube https://www.youtube.com/watch?v=TxZ6LTBN4XU from Department of Conservation in New Zealand who have a similar invasive species project running, which introduces the concept of biosecurity for invasive species control on islands.	Youtube video link Biosecurity teacher guidance notes.
Discussion 5 mins	Discuss what we have learnt from the video. Why is biosecurity so important? Explain the Orkney Nature Wildlife Project to the class (using teacher guidance notes for reference) Identifying what the project is doing to manage stoat populations and why.	
30 mins	Main – carousel of activities Task 2 to be worked on for the duration of the time, unless completing Task 1 with teacher/TA. Task 1: Invasive species Prepare before the lesson. Use a bag of seeds or beads (or choose a child to support you) and go on a short journey around the school, dropping a few seeds along the way. Do not tell anyone where you have been (don't go too far). Give the children the context of the task – “Imagine you/I/we have been on an expedition to the amazon rainforest and have come back with seeds stuck to our shoes or clothes. We have been walking around school all day. What do you think would happen?” Let's find out. Take the group on a walk around the school, looking for the traces of seeds left behind. What would happen if someone else stepped in the seeds of got them caught on their clothes? They would spread further. Explain that each pile of seeds, could represent a new colony of non-native plants growing. And as more people get the seeds stuck to their clothes, even more non-natives will spread and grow. Relate to how a small population of stoats can grow bigger and bigger the more they breed, resulting in the population spreading further and further. Only way to stop this is by removing all stoats and putting in biosecurity measures to stop them returning.	<ul style="list-style-type: none"> Teacher or TA to support Seeds/beads

	<p>Task 2: Biosecurity Group discussion to feed into possible project: Research possible ways of preventing non-native invasive species, like the stoat from reaching Orkney. Use laptop and tablets to research invasive species management. Suggested website links: https://www.orkneynativewildlife.org.uk/ https://www.rspb.org.uk/our-work/conservation/projects/biosecurity-for-life/ https://www.youtube.com/watch?v=TxZ6LTBN4XU</p> <p>Brainstorm how you can share your learning about the importance of biosecurity with the public. Who needs to know about it? How do we make people aware? How do we explain what is being done to remove stoats from the island and why it's important? What prevention measures should be in place to reduce risk of more stoats reaching the island or being reintroduced after eradication?</p> <p>Children to write ideas on post its and add to A3 paper to share with the class during the plenary.</p>	<ul style="list-style-type: none"> • Laptops and tablets • Website links • Post it notes • A3 paper
5 mins	<p>Plenary</p> <p>Each group to feedback their ideas for biosecurity in Orkney.</p> <p>Extension/project: Groups/pairs to choose the most feasible idea from task 2 and plan the creation of this to help inform people about invasive species and the measures in place for biosecurity. The final piece can be shared with ONWP. Possibility of idea to be developed for practical use.</p> <p>For project inspiration see 'Project brainstorm'</p>	Project brainstorm

**Link to Curriculum for Excellence
Experience and Outcome**

Sciences

Planet Earth – Biodiversity and interdependence

- **SCN 1-01a** I can distinguish between living and non-living things. I can sort living things into groups and explain my decision
- **SCN 2-01a** I can identify and classify examples of living things, past and present, to help me appreciate their diversity. I can relate physical and behavioural characteristics to their survival or extinction.

Topical science

- **SCN 1-20a** I have contributed to discussions of current scientific news items to help develop my awareness of science
- **SCN 2-20a** I can report and comment on current scientific news items to develop my knowledge and understanding of topical science

Literacy and English

Listening and talking – Finding and using information

- **LIT 1-04a** As I listen or watch, I can identify and discuss the purpose, key words and main ideas of the text, and use this information for a specific purpose.
- **LIT 2-04a** As I listen or watch, I can identify and discuss the purpose, main ideas and supporting detail contained within the text, and use this information for different purposes.

Listening and talking – Understanding, analysing and evaluating

- **LIT 1-07a** I can show my understanding of what I listen to or watch by responding to and asking different kinds of questions.
- **LIT 1-08a** To help me develop an informed view, I am learning to recognise the difference between fact and opinion.

- **LIT 2-07a** I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own.
- **LIT 2-08a** To help me develop an informed view, I can distinguish fact from opinion, and I am learning to recognise when my sources try to influence me and how useful these are.

Reading - Finding and using information

- **LIT 1-15a** I am learning to make notes under given headings and use them to understand information, explore ideas and problems and create new texts.
- **LIT 2-15a** I can make notes, organise them under suitable headings and use them to understand information, develop my thinking, explore problems and create new texts, using my own words as appropriate.
- **LIT 2-18a** To help me develop an informed view, I can identify and explain the difference between fact and opinion, recognise when I am being influenced, and have assessed how useful and believable my sources are.

Health and Wellbeing

Mental, emotional, social and physical wellbeing - Social wellbeing

- **HWB 012a, HWB 1013a, HWB 2-13a, HWB 3-13a** Through contributing my views, time and talents, I play a part in bringing about positive change in my school and wider community

Social studies

People, place and environment

- **SOC 0-08a** I explore and appreciate the wonder of nature within different environments and have played a part in caring for the environment.
- **SOC 1-08a** I can consider ways of looking after my school or community and can encourage others to care for their environment
- **SOC 2-08a** I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally responsible way