

## Biology and Environmental Science Hub – List of Contents

[Biology and Environmental Science Library](#)

[Virtual Fieldwork](#)

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Module/ Unit Name	Resource	Video	Length	16-18	IB
<b>Biology &amp; Environmental Science Library:</b> A collection of short videos to use in class along with ready-made resources to use indoors or outside.					
<b>Ecological Field Techniques – Sampling</b>					
Sampling Strategies: Handout	✓			✓	✓
Introduction to Sampling Strategies		✓	5 min	✓	✓
Random Sampling		✓	7 min	✓	✓
Systematic Sampling		✓	5 min	✓	✓
Stratified Sampling		✓	5 min	✓	✓
<b>Ecological Field Techniques – Key Terms</b>					
Key Terms in Ecology		✓	5 min	✓	
Investigative terms for A-level		✓	2 min	✓	
Investigative terms for International Baccalaureate and Scottish Highers		✓	2 min		✓
<b>Ecological Field Techniques – Methods</b>					
Risk Assessments for Fieldwork		✓	4 min	✓	✓
Kick Sampling & Sweep Netting		✓	5 min	✓	✓
Assessing Abundance Using Quadrats		✓	11 min	✓	✓
Pitfall Traps		✓	5 min	✓	✓
Measuring Plants & Animals		✓	6 min	✓	✓
Measuring Abiotic Factors in Woodland		✓	6 min	✓	✓
<b>Rocky Shore Ecology</b>					
Tides		✓	11 min	✓	✓
Zonation		✓	8 min	✓	✓
Measuring Heights on the Rocky Shore		✓	3 min	✓	✓
SACFOR Abundance Scale	✓	✓	10 min	✓	✓
ArcGIS StoryMap: Rocky Shore Ecology on the Firth of Clyde	✓			✓	✓

Module/ Unit Name	Resource	Video	Length	16-18	IB
<b>Biology &amp; Environmental Science Library continued...</b> A collection of short videos to use in class along with ready-made resources to use indoors or outside.					
<b>Sand Dune Ecology</b>					
Introduction to Succession	✓	✓	6 min	✓	✓
Introduction to Sand Dune Formation		✓	2 min	✓	✓
Measuring Abiotic Factors	✓	✓	5 min	✓	✓
Using Quadrats		✓	5 min	✓	✓
<b>Data Analysis Skills</b>					
A worked example for Spearman's Rank		✓	10 min	✓	✓
A worked example for the Students t- test		✓	9 min	✓	✓
A worked example for Simpson's Diversity Index		✓	8 min	✓	✓
<b>Sustainability, Biodiversity and Energetics</b>					
Lichens as Air Quality Indicators	✓	✓	8 min	✓	
Biodiversity – Measuring Biodiversity on a Farm Using Pitfall Traps		✓	14 min	✓	
Energetics- Energy Transfer in a Freshwater Ecosystem		✓	8 min	✓	✓
Earthworms & Ecological Concepts		✓	8 min	✓	
Moth Diversity & I-Naturalist		✓	11 min	✓	
<b>Enhancement Modules</b>					
<b>BIG DATA &amp; GIS IN BIOLOGY</b>					
Video supported by resource sheets and workbook	✓	✓	14 min	✓	✓
<b>DATA ANALYSIS FOR BIOLOGY</b>					
Video supported by resource sheets and workbook	✓	✓	24 min	✓	✓

Module/ Unit Name	Resource	Video	Length	16-18	IB
<b>Virtual Fieldwork</b>					
<b>SAND DUNE SUCCESSION</b>					
Teacher guidance	✓				
Pre-course activities	✓			✓	✓
Introduction to the investigation including student workbook	✓	✓	16 min	✓	✓
Fieldwork video lesson including student workbook	✓	✓	46 min	✓	✓
Follow up work booklet and data sheet	✓	✓	30 min	✓	✓
<b>ROCKY SHORE ECOLOGY</b>					
Teacher guidance	✓				
Pre-course activities	✓			✓	✓
Introduction to the investigation including student workbook	✓	✓	72 min	✓	✓
Fieldwork video lesson including student workbook	✓	✓	44 min	✓	✓
Follow up work booklet and data sheet	✓	✓	38 min	✓	✓
<b>ECOLOGY FIELDWORK TECHNIQUES</b>					
Teacher guidance	✓				
Pre-course activities	✓			✓	✓
Introduction to the techniques including student workbook	✓	✓	14 min	✓	✓
Fieldwork video lesson including student workbook	✓	✓	71 min	✓	✓
Follow up work booklet including ArcGIS StoryMap	✓			✓	✓