

Woodland Transect KS4

The effect of light on plant growth

Woodland Transect - half day option

Students will undertake two investigations on the effect of light on plant growth;

- The effect of light on size of bramble leaf
- The effect of light on the amount of ground level plant growth

Students will make predictions, collect their primary data and analyse their results, drawing conclusions. They will use appropriate equipment to collect data on biotic and abiotic factors including; keys to identify plants, quadrats, thermometers, anemometer, vernier gauge and light meter.



Learning Objectives

- That abundance of organisms in habitats is affected by environmental factors such as availability of light, water and nutrients
- To use keys and observations to identify living organisms
- To collect, analyse and interpret data from a primary source



Some suggestions for visit preparation:

1. Re-cap important vocabulary; *habitat*, *biotic*, *biotic*
2. Use simple keys to sort pictures of living things.

Some suggestions for visit follow-up:

1. Complete the suggested follow up questions about including drawing graphs
2. Variety of resources available on Arkive education website

National Curriculum Links

Science - from 2014

Working Scientifically

- Experimental skills and investigations
- Handling information and problem solving
- Scientific attitudes
- Measurements

Subject Content – Biology

- Interactions and Interdependencies
- Ecosystems
- Human Interactions with Ecosystems

AQA Science A and AQA Biology	Unit B1 (Core) B1.4 Interdependence and adaptation Unit B2 (Additional) B2.3. Photosynthesis B2.4 Organisms in their environment
AQA Science B	Unit 1 (My World) Theme 2 (Life on our planet) – Biomass and energy flow through the biosphere
OCR 21 st Century Biology A OCR Gateway Biology B	Module B4: The processes of life Module B2: Understanding our Environment B2a: Classification B2b: Energy Flow B2d: Interdependence
EdExcel Biology	B1: Influences on Life Topic 1: Classification, variation and inheritance B2: The components of life Topic 2: Organisms and Energy

EVENT SPECIFIC RISK ASSESSMENT



Visit details: **Woodland Transect**

Carried out by.....Suntrap Forest Education Centre.....

Date: Feb 2013

ISSUE	HOW TO MANAGE IT	WHO TO BE INFORMED		
ISSUE List significant hazards which may result in serious harm or affect several people. Consider venue, activity, group, plan B ,etc	What procedures will we have? (Control measures)	S	Pu	Pa
<p>Traffic safety</p> <p>Slips, trips and falls</p> <p>Soil borne diseases</p> <p>Getting lost</p>	<ul style="list-style-type: none"> • follow safe procedures for crossing roads (Suntrap Line) • do not cross cattle grid • only one person on dipping station at a time • rescue poll taken when using the large pond (by Suntrap staff) • Suntrap staff demonstrate safe collecting technique at the pond • do not put hands into soil if have cut or have a skin condition (gloves should be worn in these cases) • wash hands at the end of the activity • exercise care when using hand lenses on a sunny day • stay within the designated area directed by Suntrap staff 	<p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p>	<p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p> <p>*</p>	

You must also ensure that appropriate persons are aware of any Generic procedures, but these do not need to be repeated here.

S-Staff Pu-Pupils Pa-Parents

The activity must only take place if the residual risk following implementation of control measures is deemed to be "low".