

PAPER 4 – RESEARCH TOPICS FOR EXAMINATION IN JUNE 2014

Research guidance

Since Paper 4 relates to *research* topics, exhaustive syllabus content is not provided, allowing candidates to follow their own particular interests within the prescribed topic and giving a range of opportunities for fieldwork. However, guidance is given below for the examination in **2014**, to indicate possible ideas for investigation, and themes for wider study.

Small scale ecosystems

Possible ideas for research investigation

- Comparing an actual ecosystem with the text book model
- An investigation into vegetation succession on a sand dune ecosystem
- Investigating the relationship between selected variables e.g. soil moisture, soil pH, humus content along a transect
- A study of light intensity variations in coniferous and deciduous woodland in relation to ground cover and vegetation type
- The human impact on a named small scale ecosystem (e.g. trampling in a grassland ecosystem)
- The success of management initiatives

Examples of possible themes for wider study

- Definition of an ecosystem and the meaning of small scale (see NB below)
- The biotic & abiotic components of an ecosystem

- Energy & nutrient stores and flows
- The human impact on small scale ecosystems
- The management of small scale ecosystems

NB examples of small scale ecosystems would be a *freshwater pond, a hedgerow, a copse and a psammosere* etc

Exemplification is encouraged in the wider study