

NATIONALS IN A NUTSHELL

The National Parent Forum of Scotland Summary of Environmental Science National 4

ENVIRONMENTAL
SCIENCE

SCIENCES

NATIONAL

4

3

UNITS

LIVING ENVIRONMENT
SUSTAINABILITY
EARTH'S RESOURCES

+

ADDED
VALUE
UNIT

ADDED VALUE UNIT: ENVIRONMENTAL SCIENCE ASSIGNMENT

What skills will my child develop?

- knowledge and understanding of environmental science
- understanding environmental science's role in scientific issues and in society
- the ability to apply environmental science knowledge to familiar situations
- practical fieldwork skills
- scientific awareness of environmental issues and the validity of source material
- using scientific technology, equipment and materials safely
- the ability to research and communicate findings
- scientific literacy and scientific analytical skills
- scientific inquiry and investigative skills to illustrate effects
- creative thinking, analysing and problem-solving
- information-handling skills to select, present and process information



WHAT WILL MY CHILD EXPERIENCE DURING THE COURSE?

- Active and independent learning through self and peer evaluations, reflecting on learning, making independent decisions
- A blend of classroom approaches including hands-on practical and experiential learning; experiments;
- One-to-one, whole-class, group and peer learning and discussion; field work; visits
- Collaborative learning: working in pairs or small groups; working with partners in Science and Social Studies as this course has a strong interdisciplinary nature; employers; businesses; STEMNET
- Space for personalisation and choice: learners can choose their Assignment topic in discussion with the teachers/lecturer
- Applying learning
- Embedding literacy and numeracy skills: information-handling; processing data; measuring; communicating; analysing and evaluating; using technology; discussing.

ASSESSMENT

- To gain National 4, learners must pass all Units
- Units are assessed as pass or fail by the school/centre (following SQA external quality assurance to meet national standards)
- Unit assessment (or 'evidence of learning') could be presented in a variety of ways such as experiment reports, presentations, questioning, data loggers, graphs and tables, notes, podcasts. A portfolio of work may be prepared
- The Added Value Unit (Assignment) will require learners to investigate a topical issue in approx 8 hours of class time and present it in no more than two hours.

DISCUSSION IN THE CLASSROOM



We were fortunate to go on two visits this term. First, we went to a managed forest so that we could learn about the processes involved in timber production.

A few weeks later, we visited a local open-cast coal mine. During each visit, we received a talk from the site managers of companies involved. They described what they do to protect the environment and what they do to try and make their operations as sustainable as possible. We also received information about where the timber and coal goes and what it is used for. Before we went on the trips, we did some research in pairs into each company and into their respective industries, so that we had several challenging questions to ask. Back at school after the visits, we had a lively discussion about our questions and the answers we had received – there were lots of views about whether the answers were convincing or not.



National 4 progresses onto National 5

For more detailed course information:

SQA: Environmental Science National 4: www.sqa.org.uk/sqa/45727.html

Education Scotland: www.educationscotland.gov.uk/nationalqualifications/index.asp

Curriculum for Excellence Key Terms and Features Factfile:

www.educationscotland.gov.uk/Images/CfEFactfileOverview_tcm4-665983.pdf



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