

WJEC Level 3 Extended Diploma in Environmental Science

Statement of Purpose

The Level 3 Extended Diploma in Environmental Science has been developed for learners aged 16+, who have enjoyed and already been successful in science. Typically, learners starting this qualification will already have science qualifications at level 2, e.g. GCSEs in science subjects, GCSE Additional Applied Science or equivalent level 2 vocational science qualifications, e.g. WJEC Award in Applied Science and WJEC Award in Science for Work.

The Level 3 Extended Diploma in Environmental Science is an Applied General qualification which is the same size as two GCE A levels. It should fill approximately two thirds of a learner's timetable. This allows for the study of additional vocational or academic qualifications alongside it, e.g. GCE AS/A level biology, chemistry or geography.

The main purpose of the qualification is to provide learners with the knowledge, understanding and skills in scientific principles to enable them to progress to higher education or employment in areas related to environmental science. The qualification requires learners to apply biological, chemical and physical principles to environmental issues and to provide solutions to environmental problems.

Learners who follow this qualification will study eight units. The units that will be studied are:

- Managing energy for a sustainable future;
- The living environment and conservation;
- Monitoring our physical environment;
- Scientific principles and the environment;
- Dealing with pollution;
- Climate change **or** Transport systems and the environment;
- Managing agriculture for a sustainable future;
- Environmental impact analysis.

Each unit has a clear environmental purpose which focuses the learning of scientific principles and skills in the unit in a meaningful environmental context. The units have been written to help develop the:

- knowledge and understanding of biological, chemical and physical principles underlying environmental science;
- skills necessary to perform laboratory and field work;
- ability to solve problems in an environmental context;
- skills needed to do project based research and presentation;
- ability to learn in work-related contexts;
- ability to work alongside others in a professional manner;
- skills for independent learning and development. These are very important to employers and higher education.

Learners who complete the qualification should have a broad appreciation of work in the environmental sector allowing for progression into further education, employment or training.

Progression

When supported by other appropriate qualifications such as GCSE English and mathematics, and at level 3, such as GCE AS/A levels, e.g. in a science, geography or another vocational qualification, the WJEC Level 3 Extended Diploma in Environmental Science will enable progression to higher education. The qualification is designed to enable progression on to degree courses in areas such as Environmental Studies, Environmental Science etc.

A significant proportion of career opportunities in this sector are at degree level. There are opportunities for suitably qualified individuals to work as pollution scientists, biodiversity officers, water quality experts, environmental managers, waste managers, conservation officers, environmental consultants etc.

Employability

The qualification equips learners with a wide range of laboratory skills, as well as scientific knowledge and understanding related to environmental science. In addition, the qualification is intended to develop the ability to work alongside others. These skills are required by technicians working in laboratories and support staff (e.g. conservation wardens) in the environmental and related sectors.

Examples of employers who offer opportunities for suitably qualified individuals include: conservation organisations; the Environment Agency; Natural Resources Wales; water companies; waste management companies; DEFRA; local authorities and private sector industry.