NATIONAL 5

Engineering Science

TECHNOLOGIES

What skills will my child develop?

- Knowledge and understanding of key engineering facts and ideas
- Understanding the relationships between engineering, maths and science
- An understanding of mechanical, structural, pneumatic and electronic systems
- The ability to apply analytical, design, construction and evaluation skills to a range of engineering problems
- Knowledge of the workings of a range of engineered objects
- The ability to communicate engineering concepts clearly
- An understanding of the role and impact of engineering in society
- Knowledge of the relevance of energy, sustainability and efficienc to engineering problems and solutions
- The ability to use materials and equipment for a range of practical projects
- Design and problem-solving skills
- Planning, organising and researching in a technological context

WHAT WILL MY CHILD EXPERIENCE DURING THE COURSE?

- Active and independent learning through self and peer evaluations, setting targets, using feedback, reflecting on learning, making independent decisions
- A blend of classroom approaches including hands-on practical tasks, such as experiments and open-ended investigations; whole class interactive learning; group work and peer learning; visits
- Collaborative learning: working in pairs, small groups or teams to develop; links with other curricular areas such as physics, maths and social studies subjects; links with employers and businesses
- Space for personalisation and choice: learners can choose their assignment
- Applying learning
- Embedding literacy and numeracy skills: measuring; estimation; managing production timing; communicating; reflecting and reviewing; researching and presenting information; using technology.

ASSESSMENT

- The course will be assessed through a question paper (exam) and an assignment, which will be marked by SQA and graded A to D.
- The question paper is worth 110 marks and makes up 69% of the total assessment mark. It has two sections, one with short-answer questions (20 marks) and one with more structured questions (90 marks).
- The assignment is worth 50 marks and makes up 31% of the total assessment mark. Learners carry out a series of tasks (in response to a problem or situation) that involve analysis, designing a solution, building a solution, testing and evaluation.

National 5 progresses onto Higher Computing Science





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SQA: Engineering Science National 5: www.sqa.org.uk/sqa/47458.html Education Scotland: https://education.gov.scot/nationalqualifications Curriculum for Excellence Key Terms and Features Factfile:

https://education.gov.scot/parentzone/Documents/CfEFactfileOverview.pdf