

# Physics

SCIENCES


## What skills will my child develop?

- In-depth knowledge and understanding of physics
- Applying this knowledge and understanding to new situations
- An understanding of the role of physics in scientific issues and relevant applications of physics in society and the environment
- Scientific inquiry, investigative, analytical and evaluative thinking skills in physics and real life contexts
- The ability to use technology, equipment and materials
- Problem-solving skills and creativity in a physics context
- Extended scientific literacy, in everyday contexts, to communicate ideas and issues
- An insight into the underlying nature of our world and its place in the universe
- A deeper understanding of the processes behind scientific advances
- Information-handling skills
- Drawing valid conclusions and formulating hypotheses

## WHAT WILL MY CHILD EXPERIENCE DURING THE COURSE?

- Active and independent learning through self and peer evaluations, setting targets, making independent decisions, using feedback
- A blend of classroom approaches including challenging experimental, practical and investigative approaches, whole class discussions and interactive teaching
- Collaborative learning: working with others in group or partner activities; intercurricular learning with other sciences, mathematics, technologies, religious and moral education; with organisations such as STEMNET
- Space for personalisation and choice: learners can choose what to observe or measure and their methodology; learners will choose the topic for their assignment
- Applying learning
- Embedding literacy and numeracy skills: researching, selecting, summarising and presenting information using a range of sources; evaluating; recording and interpreting more complex data; using technology and data loggers.

## DISCUSSION IN THE CLASSROOM

 We were given the question: "Is space exploration good value for money?" First of all, we had to decide how to answer the question. Some suggested a debate, with 'yes' and 'no' positions. In the end, we put together a double-page spread for an imaginary science magazine. We looked at real magazines to work out layout and word counts, and decided how we would divide the tasks. The 'yes' page and the 'no' page each had an editor who wanted the strongest possible arguments. Some of us researched the costs of specific space projects, others found information on what had been achieved (or not). Each was turned into a small story. We ended up with a great feature, packed full of information.

National 5 progresses onto Higher Physics

For more detailed course information:

SQA: Physics National 5: [www.sqa.org.uk/sqa/47430.html](http://www.sqa.org.uk/sqa/47430.html)

Education Scotland: [www.education.gov.scot/nationalqualifications](http://www.education.gov.scot/nationalqualifications)

Curriculum for Excellence Key Terms and Features Factfile:

[www.education.gov.scot/parentzone/Documents/CfEFactfileOverview.pdf](http://www.education.gov.scot/parentzone/Documents/CfEFactfileOverview.pdf)

## 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 makes up 80% of the total assessment mark and has two sections. The questions in section 1 are multiple choice and the questions in section 2 require written responses.
- The assignment makes up 20% of the total assessment mark. Learners choose a topic, with guidance from the teacher, which they must then research and write a report on. They must carry out an experiment as part of their research.



the National Parent Forum of Scotland

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