An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection in Science & Biology

REPORT

Ainm na scoile / School name	Douglas Community School
Seoladh na scoile / School address	Clermont Avenue Douglas Cork
Uimhir rolla / Roll number	91396R

Date of Inspection: 24-04-2018

An Roinn Oideachais
agus Scileanna
Department of
Education and Skills

SUBJECT INSPECTION

Subject Inspections report on the quality of work in individual curriculum areas within a school. They affirm good practice and make recommendations, where appropriate, to aid the further development of the subject in the school.

HOW TO READ THIS REPORT

During this inspection, the inspector evaluated learning and teaching in Science & Biology under the following headings:

1. Teaching, learning and assessment
2. Subject provision and whole-school support
3. Planning and preparation

Inspectors describe the quality of each of these areas using the Inspectorate's quality continuum which is shown on the final page of this report. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality of the school's provision in each area.

CHILD PROTECTION

During the inspection visit, the following checks in relation to the school's child protection procedures were conducted:

1. The name of the DLP and the Child Safeguarding Statement are prominently displayed near the main entrance to the school.
2. The Child Safeguarding Statement has been ratified by the board and includes an annual review and a risk assessment.
3. All teachers visited reported that they have read the Child Safeguarding Statement and that they are aware of their responsibilities as mandated persons.

The school met the requirements in relation to each of the checks above.

SUBJECT INSPECTION

INSPECTION ACTIVITIES

Dates of inspection	23 and 24-04-2018
Inspection activities undertaken • Review of relevant documents • Discussion with principal and key staff • Interaction with students	• Observation of teaching and learning during seven class periods • Examination of students' work • Feedback to principal, deputy principal and relevant staff

School context

Douglas Community School is a post-primary school which has an enrolment of 539 boys at the time of the inspection. The school operates under the trusteeship of the Archdiocese of Cork and Ross and the Cork Education and Training Board. The school offers the Junior Cycle, a compulsory Transition Year (TY) programme, the established Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP).

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

Findings

- The overall quality of teaching was good with some examples of very good practice.
- Teachers were well prepared for their lessons and used a good range of relevant resources and effective methodologies, including information and communications technology (ICT) and some enquiry-based learning which could be usefully extended.
- The quality of assessment was good and included effective questioning during lessons; this could now be complemented by the use of learn checks during lessons and formative feedback to written activity.
- The overall quality of learning was good, with students active and engaged in lessons.
- Overall, the science department planning is good, but would benefit from a review of all plans in addition to further attention to the planning in relation to the new junior cycle science specification.
- Lessons were very well managed and included affirmation of student effort and a good teacher-student rapport which created a positive learning atmosphere.

Recommendations

- The science team should collaborate to develop their current planning materials to ensure that topics outlined in the new junior science specification are linked to overall key skills and to learning outcomes in each of the strands; the nature of science strand should also be integrated through the teaching and learning of the other strands.
- The established plans in Biology should be reviewed and should be written in the form of learning outcomes, linked to methodologies, assessment strategies, resources and timeframes required.
- The science team should consider how to share and extend the use of effective practice such as enquiry based learning, the use of learn checks during lessons and provision of formative feedback to students.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING, AND ASSESSMENT

- The overall quality of teaching was good with some examples of very good practice.
- Lessons were well prepared and teachers had access to a good range of equipment and resources, including ICT. The learning intentions were shared with the students at the start of most lessons. More reference could be made to these learning intentions during the lesson and especially at lesson summation, to aid student learning. In addition, student learning was also supported through the establishment of links with students' prior learning and through cross-curricular linkages.
- The overall quality of learning was good, with students active and engaged in the lessons. Teachers provided clear instructions and used a good range of effective methodologies, including individual student tasks, group and pair work, whole class teaching, practical activities and investigative coursework to ensure student engagement. While there was some use of enquiry-based learning, this could be usefully extended.
- Student work and progress with assigned tasks were monitored by the teacher, with help and guidance given to students when required. The teachers could further maximise the potential of student activities and tasks in the lessons by promoting targeted discussion and questioning in order to further challenge the learner and aid course integration.
- There was clear delivery of new material in the lessons. The pace of lesson delivery, the content and time management were good. All lessons observed had a good balance between time spent on teacher instruction and student activity.
- Subject-specific language and keywords were used consistently in the lessons. Highlighting keywords was the main literacy focus observed. Best practice was when these were put on the board and referred to during the lesson. To aid learner retention, they should also be recorded by the students as part of note making. To further support this, the team should also consider how each laboratory can be used to display current key terms for each year-group.
- Classroom management was very good. There was a very positive student-teacher rapport evident during lessons. Students were affirmed and demonstrated high levels of interest and participation in learning.
- The overall quality of assessment was good. Effective questioning was observed during lessons, including the use of a range of question types distributed across the student cohort and giving students sufficient time to provide an answer. To develop this further, the use of learn checks during and at lesson summation, linked with the learning intentions for the lesson, should be considered by the team.
- Homework is assigned, monitored and corrected frequently. The inclusion of formative feedback to students on work completed could be further developed, as it will guide students towards improvement.
- The science facilities had a range of visual materials, some of student origin. These displays should be updated regularly to reflect and support current learning.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support for the sciences is good; Science is a core subject at junior cycle and four science subjects are offered to students at senior cycle.
- The time allocation for both Science and Biology is in line with specification and syllabus guidelines for the subjects.
- The school has three laboratories which are well organised, resourced and ICT enabled. All facilities have safety equipment and chemicals are stored correctly.

- The school is very supportive of teachers' continuing professional development (CPD). Extracurricular activities in science are strongly encouraged, including participation in SciFest, the BT Young Scientist and Technology Competition, subject-related quizzes and a wide range of science competitions which support students' learning and interest in the sciences.
- Common summative assessment practices are in place. The science team should explore modes of assessment which will support skill development of their students in line with the new science specification.

3. PLANNING AND PREPARATION

- Overall, the quality of planning and preparation to teach is good. There is evidence of the use of shared electronic folders, common plans, common assessments and a formal meeting structure.
- The development of the new digital teaching platform is positive, and will allow for easier sharing and use of resources. It will be important to manage this platform and review the content regularly for relevance and usability. Moving forward, the team will also have to consider how their use of a digital platform will support the students' learning.
- To ensure successful planning for teaching, learning and assessment for the new junior science specification, the science team should continue to collaborate to further develop their current planning materials. It will be important to ensure that topics outlined are not just aligned with textbook chapters but linked to overall key skills and to learning outcomes in each of the strands, while also integrating the nature of science strand through the teaching and learning of the other strands.
- The established plans in Biology should be reviewed and should be written in the form of learning outcomes, linked to methodologies, assessment strategies, resources and timeframes required.
- The role of co-ordinator is rotated among the team on a yearly basis. Formal meetings are facilitated by management during the school year, at which minutes are recorded. The recording of more detailed minutes should be considered. In addition, the inclusion of teaching and learning on each agenda will aid in the sharing of effective practices, facilitate discussion on how to integrate the key skills and plan how the nature of science strand will be integrated into the teaching of the other science strands.
- Certificate examination results are analysed by the school. The science department could use these to aid in the setting of targets and action plans for improvement, which should be recorded in department minutes.

The draft findings and recommendations arising out of this evaluation were discussed with the principal, deputy principal and subject teachers at the conclusion of the evaluation. The board of management was given an opportunity to comment in writing on the findings and recommendations of the report, and the response of the board will be found in the appendix of this report.

THE INSPECTORATE'S QUALITY CONTINUUM

Inspectors describe the quality of provision in the school using the Inspectorate's quality continuum which is shown below. The quality continuum provides examples of the language used by inspectors when evaluating and describing the of quality the school's provision of each area.

Level	Description	Example of descriptive terms
Very Good	***Very good*** applies where the quality of the areas evaluated is of a very high standard. The very few areas for improvement that exist do not significantly impact on the overall quality of provision. For some schools in this category the quality of what is evaluated is ***outstanding*** and provides an example for other schools of exceptionally high standards of provision.	Very good; of a very high quality; very effective practice; highly commendable; very successful; few areas for improvement; notable; of a very high standard. Excellent; outstanding; exceptionally high standard, with very significant strengths; exemplary
Good	***Good*** applies where the strengths in the areas evaluated clearly outweigh the areas in need of improvement. The areas requiring improvement impact on the quality of pupils' learning. The school needs to build on its strengths and take action to address the areas identified as requiring improvement in order to achieve a *very good* standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
Satisfactory	***Satisfactory*** applies where the quality of provision is adequate. The strengths in what is being evaluated just outweigh the shortcomings. While the shortcomings do not have a significant negative impact they constrain the quality of the learning experiences and should be addressed in order to achieve a better standard.	Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas
Fair	***Fair*** applies where, although there are some strengths in the areas evaluated, deficiencies or shortcomings that outweigh those strengths also exist. The school will have to address certain deficiencies without delay in order to ensure that provision is satisfactory or better.	Fair; evident weaknesses that are impacting on pupils' learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve
Weak	***Weak*** applies where there are serious deficiencies in the areas evaluated. Immediate and coordinated whole-school action is required to address the areas of concern. In some cases, the intervention of other agencies may be required to support improvements.	Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Area 1 Observations on the content of the inspection report

The school and science team welcome the positive findings of this report.

Area 2 Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection.

- The science team intend to link junior science topics to overall skills and learning outcomes. The team have endeavoured since the introduction of the new junior science specification that the "nature of science" strand permeates all learning and teaching and will continue to do so.

- The established plan in Biology will be reviewed, as suggested, in the new school year.

- The science team recognise the value of enquiry based learning, learning checks and formative feedback and will endeavour to further incorporate them into lessons.