

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Science & Biology

REPORT

Ainm na scoile / School name	St Mary's Knockbeg College
Seoladh na scoile / School address	Knockbeg Co. Carlow
Uimhir rolla / Roll number	61130H

Date of Inspection: 17-05-2017



WHAT IS A 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. Learning, teaching 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.

Subject Inspection

INSPECTION ACTIVITIES DURING THIS INSPECTION

Date of inspection	17-05-2017
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and key staff• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during five class periods• Examination of students' work• Feedback to principal and relevant staff

SCHOOL CONTEXT

Knockbeg College, under the trusteeship of the Bishop of Kildare and Leighlin, is a boys' post-primary school which caters for 423 students. The school curriculum includes the Junior Certificate and Leaving Certificate programmes, an optional Transition Year (TY) and the Leaving Certificate Vocational Programme.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- The overall quality of teaching and learning varied from satisfactory to very good, with examples of good and very good practice evident in all the lessons observed.
- A good variety of student-centred, active teaching methodologies was used.
- The quality of questioning was very good and an appropriate mix of lower-order and higher-order questions was used to challenge students.
- Lessons were very interactive and students made very good contributions to the lessons.
- Provision for the sciences is very good.
- Subject planning is good and planning for the implementation of the new junior cycle science specification is evident in documents.

RECOMMENDATIONS

- The provision of written developmental feedback to students on their work should be extended to all classes.
- The subject department members should discuss and agree common standards for content and presentation of students' written work.
- The content of the TY science course should be reviewed to reduce the overlap with Leaving Certificate syllabuses in some subject areas and promote alternative topics to broaden students' experience of the sciences.
- It is recommended that a more formal structure be put in place for the science department.
- It is recommended that the outcomes of the analysis of certificate examinations be used, along with other available evidence, to plan for improvement.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING, LEARNING AND ASSESSMENT

- The overall quality of teaching and learning varied from satisfactory to very good, with examples of good and very good practice evident in all the lessons observed.
- All lessons were well planned and well prepared, with all necessary resources to hand. Classroom management was uniformly very good.
- Lessons were well paced and mostly well structured, but care should be taken to ensure that the learning intention is shared with students at the outset of every lesson.
- A good variety of appropriate teaching methodologies was used. Student-centred, active methodologies predominated, but these were well balanced with teacher-led phases in the lessons.
- The quality of questioning was very good and an appropriate mix of lower-order and higher-order questions was used to challenge students. These questions were generally directed to named students. However, on occasion, chorus answering by students should be discouraged.
- In-class assessment was well managed through questioning, discussion and teacher circulation amongst students, monitoring and assessing their progress. The quality of differentiation and provision of tailored individual support for students was good.
- Lessons were very interactive and students made very good contributions, which were both sought and welcomed by their teachers. In some instances, these student contributions were used to progress the lessons.
- Oral feedback to students on their work in class was good. Written feedback to students, designed to promote improvement, was observed in a number of instances where very good quality feedback was provided to students on their written work. The provision of such feedback should be extended to all classes.
- In addition, the subject department members should discuss and agree common standards for content and presentation of students' written work.
- Practical work was safely and efficiently managed with useful plenary sessions before and following laboratory activities.
- Information and communications technology was well used to illustrate lesson content and to provide additional information.
- Students engaged well in the learning process and responded very well to their teachers' challenges, demonstrating a good level of learning.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Provision for the sciences is very good. Science is a core subject in junior cycle and is a significant aspect of the TY programme. All of the science subjects are available to students at Leaving Certificate level.
- The time allocated to classes in the sciences is in keeping with syllabus recommendations.

- A new prefabricated laboratory has recently come into use and is a significant improvement over the existing laboratories which have become very dated. Nonetheless, best use is being made of existing facilities.
- Teachers provide generous support for a valuable variety of extra-curricular and co-curricular activities to enhance students' experience of the sciences.
- Continuous professional development is supported by school management and opportunities are availed of to the best extent possible by teachers.
- A very good system to assess and report on students' academic progress is in place.

3. PLANNING AND PREPARATION

- Subject planning is good and planning for the implementation of the new junior cycle science specification is evident in subject department documents. Comprehensive subject folders include schedules for the delivery of each course and subject.
- The content of the TY science course should be reviewed to reduce the overlap with Leaving Certificate syllabuses in some subject areas and promote alternative topics to broaden students' experience of the sciences.
- To enhance existing provision, it is recommended that the science department builds on the existing practice of individual subject co-ordinators and appoints an overall science co-ordinator to steer the development of the sciences over the next three years. This position should then be rotated amongst the department members.
- A thorough analysis of certificate examination outcomes has been completed and it is recommended that the outcomes of this analysis be used, along with other available evidence, to plan for improvement. As part of this work, targets should be set and the steps to be taken to achieve them should be documented.

The draft findings and recommendations arising out of this evaluation were discussed with the 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 quality of 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 <i>very good</i> 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 Board of Management of St. Mary's Knockbeg College welcomes the positive affirmation of the excellent work in the area of teaching and learning in our school as presented in the report from the recent Science and Biology inspection. We are particularly pleased with the recognition of the good quality of teaching and learning, the very positive learning environment, good planning for lessons; students are motivated to learning and the acknowledgment that students perform very well in certificate examinations.

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 Board is fully aware of the excellent quality of teaching and learning within these subjects but understands that there is always room for improvement. The Board of Management and the Science Department are gratified by the very positive, helpful and comprehensive feedback in this Report. The Board of Management is committed to supporting the teachers in following up on recommendations made by the Inspectorate with a view to building on the current very good practice that already exists at St. Mary's Knockbeg College. The recommendations specified are realistic and will be addressed during the next academic year.