

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection in Science

REPORT

Ainm na scoile / School name	Ballymakenny College
Seoladh na scoile / School address	Ballymakenny Road Drogheda County Louth
Uimhir rolla / Roll number	91573N

Date of Inspection: 22-03-2017



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 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.

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.

SUBJECT INSPECTION

INSPECTION ACTIVITIES DURING THIS INSPECTION

Date(s) of inspection	22-03-2017
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 six class periods• Examination of students' work• Feedback to principal, deputy principal and relevant staff

SCHOOL CONTEXT

Ballymakenny College was established in 2014 under the shared trusteeship of the Louth Meath Education and Training Board, and Educate Together. The school moved into new purpose-built accommodation in February 2016 and is currently providing the Junior Certificate programme for 312 boys and girls.

SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS:

FINDINGS

- Teaching and learning were of a very high standard.
- As a result of very good lesson planning, students benefited from well-structured lessons which included a good variety of well-designed learning activities.
- Teachers and students made very good use of information and communication technology (ICT) to progress learning.
- Some very good use was made of supplementary and higher-order questions to probe students' understanding, but many questions required only brief responses from students.
- Whole-school support and subject provision are of a very high quality.
- The quality of subject planning is excellent.

RECOMMENDATIONS

- In order to fully assess the achievement of the specified learning intentions for lessons or topics, teachers should develop collaboratively sets of questions or tasks that require more extended inputs from students.

DETAILED FINDINGS AND RECOMMENDATIONS

1. TEACHING AND LEARNING

- Teaching and learning were of a very high standard. Very effective practice was evident across all of the lessons observed.
- As a result of very good lesson planning, students benefited from well-structured lessons which included a good variety of well-designed learning activities. Clear learning intentions were set out at the start of each lesson. Useful teaching resources, such as worksheets and electronic presentations, supported students' engagement in learning.
- Students' independent and active involvement in learning was supported by the teaching approaches used. For example, an investigative approach was used in practical activities. In other lessons, students had to research topics by themselves before classroom discussion. Effective group work was used extensively.
- The lessons, which were of a one-hour duration, were well paced and students' engagement was maintained by regular variation in the teaching methodology used. No single activity dominated the lesson. Regular time checks kept students on task.
- Teachers made very good use of ICT to present information and instructions simply and clearly. Students made great use of tablet devices to support their learning, for example they prepared presentations on lesson content. The sharing of teaching resources with students allows them to access such resources from home and thus learning is extended beyond the classroom.
- There was a strong emphasis on the development of literacy skills in the lessons observed. In particular, students' understanding and use of scientific terms were closely monitored. It would be useful in future to also monitor students' understanding of non-technical words used in Science.
- Lessons were conducted in a very positive and affirmative atmosphere. Students and teachers addressed each other by first name and it was evident that students were very comfortable in asking questions and engaging in classroom discussions.
- Students' progress was assessed in variety of ways, for example through teacher observation, correction of homework and peer-assessment. Some very good use was made of supplementary and higher-order questions to probe students' understanding but many questions required only brief responses from students. In order to fully assess the achievement of the specified learning intentions for lessons or topics, teachers should collaboratively develop sets of questions or tasks that require more extended inputs from students.

2. SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Whole-school support and subject provision are of a very high quality.
- The school has excellent facilities for teaching science subjects. Three laboratories have been fitted out to a high standard; two other laboratories will be completed as required. Teachers' involvement in planning and setting up the laboratories is to be commended.
- Very good ICT facilities are provided in the laboratories. Relevant health and safety equipment, such as emergency isolation switches for gas and electricity, is also in place.

- Timetabling arrangements are appropriate. All lessons are of a one-hour duration and sufficient time is provided to complete the course. Classes are of an appropriate size for practical activities and are of mixed ability.
- Senior management has shown a strong commitment to supporting good planning for both whole-school and subject-related issues. For example, time has been provided for planning meetings, management sets agenda items for subject department meetings, and several school-improvement plans are being implemented.
- Students benefit from the school's participation in extra-curricular science activities such as SciFest and Science Week.

3. PLANNING AND PREPARATION

- The quality of subject planning is excellent. Since the school was established, a significant amount of progress in subject planning has been achieved as a result of the collaborative work of the science department. This planning has been conducted in a professional and reflective manner.
- The work of the science department is coordinated ably by one of the teachers and is facilitated by regular formal meetings of the team. Ongoing informal collaboration is a positive feature of the science department. Long-term planning is evident in the development of a curricular action plan that sets out tasks to be completed over a number of years.
- Very good use is being made of ICT to support subject planning. In line with whole-school policy, all records and teaching resources are stored and shared electronically.
- Useful schemes of work for junior cycle have been developed and it is good practice that all students in a particular year group sit common examinations. Planning for the introduction of a science subject next year in Transition Year will take place before the end of this school year.
- Planning for, and implementation of, the new specification for Junior Cycle Science is progressing very well. Expert external assistance has been sought and a scheme of work based on the relevant learning outcomes is being developed in stages. It is very good practice that the scheme is linked with whole-school strategies such as those for literacy and numeracy.
- Very effective practice is evident in the engagement of science teachers with collaborative planning of lessons focused on areas such as literacy, numeracy and inquiry-based learning.
- Very good use has been made of data such as student outcomes in mock examinations to plan for revision work with examination classes.
- Very good collaborative planning has resulted in the development of a project-based assessment task for first and second-year classes. It would be worthwhile supplementing this type of assessment of practical skills with an agreed approach to the assessment of students' written laboratory reports.

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.

Appendix

School response to the report

Submitted by the Board of Management

Part A: Observations on the content of the inspection report

The Board of Management of Ballymakenny College has reviewed the inspection report on Science that was conducted in March 2017 by the Department of Education and Skills.

The Board welcomes the observations made in the report indicating that “teaching and learning were of a very high standard”, “whole-school support and subject provision are of a very high quality” and “the quality of subject planning is excellent”.

The report also stated that “effective practice is evident in the engagement of science teachers with collaborative planning of lessons focused on areas such as literacy, numeracy and inquiry-based learning.”

It was noted also that “senior management has shown a strong commitment to supporting good planning for both whole school and subject-related issues.” The Board welcomes this observation.

The Board is pleased that the excellent work that is carried out on a daily basis by the teachers in the Science department was observed.

Part B: Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection

In order to fully assess the achievement of the specified learning intentions for lessons or topics, teachers should develop collaboratively sets of questions or tasks that require more extended inputs from students.

The Board, in its ongoing commitment to excellence, takes due cognisance of the inspectors recommendations. Assessment models and strategies will be considered and developed through the lens of the new Junior Cycle. Advice will be sought from the Assessment Team at JCT and opportunities for JCT facilitation with the whole staff will form part of the school’s planning process for the next academic year. Agreed features and assessment strategies will continue to be recognised and acted upon in subsequent subject planning agendas and meetings.

As this is the first subject inspection ever undertaken in Ballymakenny College, the Board wishes to most sincerely thank the principal, deputy principal, science teachers and students for their hard work, commitment and dedication to the teaching and learning of science in Ballymakenny College and congratulates them on this excellent 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 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;