



Sir Joseph Williamson's Mathematical School

Inspection Report

Unique Reference Number 118839
LEA Medway
Inspection number 280407
Inspection dates 30 November 2005 to 1 December 2005
Reporting inspector Roy Blatchford HMI

This inspection was carried out under section 5 of the Education Act 2005.

Type of school	Grammar (selective)	School address	Maidstone Road
School category	Voluntary controlled		Rochester
Age range of pupils	11 to 18		Kent ME1 3EL
Gender of pupils	Boys	Telephone number	01634 844008
Number on roll	1056	Fax number	01634 818303
Appropriate authority	The governing body	Chair of governors	Mr M Costello
Date of previous inspection	15 May 2000	Headteacher	Mr Keith Williams

Age group 11 to 18	Inspection dates 30 November 2005 - 1 December 2005	Inspection number 280407
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Introduction

The inspection was carried out by one of Her Majesty's Inspectors (HMI) and three Additional Inspectors.

Description of the school

The Mathematical School is a five-form entry boys' grammar school, with a mixed sixth form, serving the Medway area. The school has specialist status in mathematics and computing, and in post-16 education works as part of the Rochester/Walderslade consortium. Pupils come from a broad range of socio-economic backgrounds. The number of pupils identified as having learning difficulties and disabilities is well below average, as is the proportion of pupils eligible for free meals. A small number of pupils have English as an additional language.

The school is consistently oversubscribed and has expanded significantly over the past decade. The headteacher has recently returned from a period of secondment to the Department for Education and Skills; during his absence the school was led by the deputy headteacher.

Key for inspection grades

Grade 1	Outstanding
Grade 2	Good
Grade 3	Satisfactory
Grade 4	Inadequate

Overall effectiveness of the school

Grade: 1

The school judges itself to be consistently good overall. Given the exemplary practice in many aspects of provision, inspection evidence judges the school to be outstanding and providing very good value for money. The standards achieved are outstanding. The school has a strong track record in national tests and examinations, and has made good progress since the last inspection, particularly in its provision for information and communication technology (ICT).

The quality of teaching and learning are good, and fast improving as a result of the school's identification of where classroom practice could be even better. The pupils come to school expecting to work hard and they apply themselves diligently to academic study. The curriculum is good overall, with extra-curricular provision in sport especially valued by the pupils. They are very well supported and cared for, and their personal development as young citizens of the 21st century is impressive. In the words of one parent: 'They are encouraged to have an opinion and voice it, helping them to become confident young adults'.

Leadership and management, particularly at senior level, are outstanding, and leadership at all levels continues to demonstrate a very strong capacity to improve.

Effectiveness and efficiency of the sixth form

Grade: 1

Sixth form effectiveness is outstanding. Sometimes, teachers do not involve students actively enough in lessons. However, students are determined to learn effectively, resulting in well above average results and outstanding achievement. Girls and boys are very enthusiastic about opportunities to be involved in school life, and the excellent support the school provides. The sixth form provides very good value for money.

What the school should do to improve further

The headteacher and governors have rightly identified the following in their current school development plan:

- ensure that good practice is shared more effectively to raise the overall standard of teaching
- extend opportunities for all pupils and students, particularly the more able, to develop better independent learning skills.

Achievement and standards

Grade: 1

Pupils' attainment on entry is well above the national average, although the ability range is wider than in many grammar schools nationally. Standards are exceptionally high in all years and have risen since the last inspection. Pupils make very good progress, reflecting elements of the school's hymn: 'All hail to the lad who in learning advances ... and ever at excellence aims'. Results compare favourably with other

selective schools. The few pupils who have learning difficulties and disabilities and those from minority ethnic backgrounds do as well as others.

At the end of Year 9 in 2005, nine out of ten pupils attained significantly above average levels in English, mathematics and science national tests. In 2004, all pupils attained five or more GCSE grades A*-C. The school set the same challenging target in 2005, which it narrowly missed with 98.7%.

English and mathematics GCSE results, the latter reflecting the school's specialism, are significantly above average: in 2005 almost half the pupils attained A* and A grades. The percentage of A* and A grades overall went up to 38%, which is well above the national average. Science results are not as strong as those in mathematics and English and the school is focusing on eradicating D grades in this subject and in a few others such as ICT.

The A level results continued to be very high in 2005. All students passed in every subject and the percentage of A and B grades rose to 55.6%. The percentage of A and B grades was particularly high in economics, government and politics, history, mathematics, music and philosophy. As in the main school, students' achievement in the sixth form is outstanding.

Personal development and well-being

Grade: 1

From talking to and observing the pupils, it is evident that they really enjoy school and value the time they spend in classrooms and activities. This is also confirmed by the attendance figures, which are well above the national average.

Behaviour around the school and in lessons is good and pupils are polite, courteous and friendly. Attitudes are equally positive, although pupils would benefit from being given more opportunities to interact and to share their thinking processes in lessons.

Students and pupils make a very positive contribution to community development, both within school and in the local area. They make a very effective contribution to the school council, which has a significantly positive impact on the life of the school, organising charity fund-raising and improvements to the environment, including the addition of 'much needed bag racks'.

The school is working hard to promote healthy lifestyles: for example, by encouraging learners to opt for the healthy options menu, drink fresh water and take regular exercise. The school's physical education programme is particularly effective in promoting high standards of health and fitness both within the school curriculum and outside school hours. Indeed, the school is holder of the Sportsmark Gold Award and provides dedicated curriculum time for the delivery of the Community Sports Leader Award in the sixth form. The pupils' high levels of literacy, numeracy and ICT skills prepare them well for adult and working life.

Tutor groups and the general atmosphere in the school have a very positive impact upon most aspects of personal development. This is particularly evident in those spiritual, cultural, moral and social elements that raise self-esteem and encourage

learners to show consideration for others. For example, in a middle school assembly on the theme of annunciation, pupils were encouraged to reflect on how they fit in to the big 'cosmic drama' that is life. The school works assiduously to ensure that its caring and supportive approach brings about lasting changes in pupils' attitudes and personal development.

Quality of provision

Teaching and learning

Grade: 2

Teaching is good in the main school and the sixth form. When lessons are good or outstanding, teachers combine knowledge, enthusiasm, pace and active involvement of pupils, leading to excellent progress and enjoyment. Resources are harnessed imaginatively to stimulate debate and thinking of high quality. Teachers use examination criteria and attainment levels very effectively to show how work can be improved, as seen in a sixth form history lesson on the 19th century revolutions. Achievement is outstanding in such lessons. Where teaching is less effective, work is not challenging enough for the most able to make sufficient progress; in the sixth form, the skills of scholarship and independent study are not sufficiently encouraged. Pupils and students are very confident in identifying the qualities of good teaching and learning. They particularly enjoy lessons that 'put theory and practical together in a fun way' and 'teaching that brings a text book alive'. One Year 10 pupil commented: 'Exam techniques are very well taught and we are given time to reflect on our answers'.

Aspects of learning are outstanding because most pupils bring very positive attitudes to school, and they develop the skills to achieve excellent examination results even when individual lessons are too teacher led and do not engage learners sufficiently. Pupils who have additional learning needs are very well supported and achieve as well as others. Parents are involved positively in their children's learning: attendance at parents' meetings is excellent, and parents wrote enthusiastically in questionnaires about the value of the individual action planning days.

Curriculum and other activities

Grade: 2

The curriculum is good, and includes excellent extra curricular activities. Pupils in Years 7 to 9 are now taught ICT every week and they regularly use it in other subjects. Latin is offered as well as French and German. The school devises its Years 10 and 11 timetable in response to pupils' interests and gives them considerable choice for their GCSE options. The school makes fruitful arrangements for the few pupils who wish to pursue vocational courses.

Sixth form students choose appropriately from over 20 academic subjects. The school responds to their requests for particular subjects, for example recently adding psychology and the rugby academy. The timetable does not allow all students to attend the weekly lessons on religious and personal, social and health education topics, which

limits their experience. A few sixth form students opt for vocational courses within the consortium and, in addition, the school is seeking funding to set up manufacturing courses on site.

Gifted and talented pupils and students participate in the wealth of activities the school offers and a few of them have recently enrolled with the National Academy for Gifted and Talented Youth. Otherwise, the school is at an early stage of offering specific and challenging courses for them.

Over 200 pupils learn a musical instrument and the department organises numerous ensembles, ranging from singing groups to jazz bands. The number and range of sporting activities are most impressive, and commented on consistently in conversations between boys and the inspection team.

Care, guidance and support

Grade: 1

Pupils receive outstanding care and support in the main school and sixth form. Teachers are sensitive to individual needs and work hard to address them, often making effective use of the good support provided by the local health and education welfare services. Pupils are able to achieve challenging targets in this safe and supportive environment.

Induction arrangements are well planned so that new pupils start the school confidently. Year 9 pupils interviewed were very impressed with the transition arrangements made for them when they joined the school in Year 7. Sixth form students are playing an increasingly important role in mentoring pupils in the main school.

Support for vulnerable pupils is outstanding; every effort is made to integrate them into the school community and to enable them to participate successfully. The school has a clear policy for dealing with bullying, referred to positively by parents. Pupils have ownership of the anti-bullying forum, which is very effective in handling cases and ensuring that the anti-bullying message has a high profile. Child protection arrangements are secure. Any racial incidents are recorded carefully and followed up by the senior leadership team.

Leadership and management

Grade: 1

The headteacher's unswerving focus on providing a high quality of education for the pupils is at the heart of this successful school. His reflective, decisive approach to change, informed by broader perspectives on educational matters, has ensured that the school has improved continuously through a period of expansion. Astute financial management coupled with sharp analysis of curriculum and staffing requirements are hallmarks of this leadership. He has enabled senior managers to display equally strong leadership skills. These are demonstrated in thoughtful attention to detail in day-to-day management, rigorous monitoring and tracking of pupils' progress, meticulous follow-up to emerging educational issues, and the consistent promotion of high levels of care and support for pupils.

Middle managers are keenly aware of their accountabilities and take suitable steps to monitor the quality of teaching and learning in their curriculum areas. The school's trenchant reviews of the quality of teaching and learning in each of the key stages have been conducted in a climate of rigorous school improvement. Points for action have been identified, but there is not yet the consistency of approach to sharing best teaching practice within and between departments, which the school has set itself as a key priority for further improvement.

Resources and accommodation are generally fit for purpose, and the school makes ingenious use of every available space. The library is at the heart of the school and provides a welcoming and inclusive environment for pupils and students of all ages.

The governing body takes seriously its challenge and support role, and ensures it has a robustly informed perspective through visiting the school at work, meeting staff about educational priorities, and attending the wide range of extra-curricular events. Over 40% of families responded to the inspection questionnaire. Comments received were consistently supportive, one parent observing: 'We feel the school has been flexible in realising that each student is an individual with his/her own particular needs and abilities. It encourages excellence while not putting too much pressure on pupils'. There is a united determination from staff and governors to sustain and enhance the school's deserved and strong reputation in the local community.

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Inspection judgements

<i>Key to judgements: grade 1 is outstanding, grade 2 good, grade 3 satisfactory, and grade 4 inadequate</i>	School Overall	16-19
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Overall effectiveness

How effective, efficient and inclusive is the provision of education, integrated care and any extended services in meeting the needs of learners?	1	1
How well does the school work in partnership with others to promote learners' well-being?	1	1
The quality and standards in foundation stage	NA	NA
The effectiveness of the school's self-evaluation	2	2
The capacity to make any necessary improvements	Yes	Yes
Effective steps have been taken to promote improvement since the last inspection	Yes	Yes

Achievement and standards

How well do learners achieve?	1	1
The standards ¹ reached by learners	1	1
How well learners make progress, taking account of any significant variations between groups of learners	1	1
How well learners with learning difficulties and disabilities make progress	1	

Personal development and well-being

How good is the overall personal development and well-being of the learners?	1	1
The extent of learners' spiritual, moral, social and cultural development	1	
The behaviour of learners	2	
The attendance of learners	1	
How well learners enjoy their education	1	
The extent to which learners adopt safe practices	1	
The extent to which learners adopt healthy lifestyles	1	
The extent to which learners make a positive contribution to the community	1	
How well learners develop workplace and other skills that will contribute to their future economic well-being	1	

The quality of provision

How effective are teaching and learning in meeting the full range of the learners' needs?	2	2
How well do the curriculum and other activities meet the range of needs and interests of learners?	2	2
How well are learners cared for, guided and supported?	1	1

¹ Grade 1 - Exceptionally and consistently high; Grade 2 - Generally above average with none significantly below average; Grade 3 - Broadly average; Grade 4 - Exceptionally low.

Leadership and management

How effective are leadership and management in raising achievement and supporting all learners?	1	1
How effectively leaders and managers at all levels set clear direction leading to improvement and promote high quality of care and education	1	
How effectively performance is monitored, evaluated and improved to meet challenging targets, through quality assurance and self-review	2	
How well equality of opportunity is promoted and discrimination tackled so that all learners achieve as well as they can	1	
How effectively and efficiently resources are deployed to achieve value for money	1	
The extent to which governors and other supervisory boards discharge their responsibilities	1	
The adequacy and suitability of staff to ensure that learners are protected	Yes	Yes

The extent to which schools enable learners to be healthy	
Learners are encouraged and enabled to eat and drink healthily	Yes
Learners are encouraged and enabled to take regular exercise	Yes
Learners are discouraged from smoking and substance abuse	Yes
Learners are educated about sexual health	Yes
The extent to which providers ensure that learners stay safe	
Procedures for safeguarding learners meet current government requirements	Yes
Risk assessment procedures and related staff training are in place	Yes
Action is taken to reduce anti-social behaviour, such as bullying and racism	Yes
Learners are taught about key risks and how to deal with them	Yes
The extent to which learners make a positive contribution	
Learners are helped to develop stable, positive relationships	Yes
Learners, individually and collectively, participate in making decisions that affect them	Yes
Learners are encouraged to initiate, participate in and manage activities in school and the wider community	Yes
The extent to which schools enable learners to achieve economic well-being	
There is provision to promote learners' basic skills	Yes
Learners have opportunities to develop enterprise skills and work in teams	Yes
Careers education and guidance is provided to all learners in key stage 3 and 4 and the sixth form	Yes
Education for all learners aged 14–19 provides an understanding of employment and the economy	Yes

Text from letter to pupils explaining the findings of the inspection

Sir Joseph Williamson's Mathematical School Maidstone Road Rochester Kent ME1 3EL

2 December 2005

Dear Pupils and Sixth Form Students,

You may recall we visited the school recently to inspect the quality of education. We spoke to a number of you as we went around the school, and would like to thank in particular the pupils from each year group whom we interviewed. You have a perceptive understanding of how your school works and of its many strengths. We would also like to express our thanks to the many parents who responded to the questionnaires and wrote comments that helped shape our final report, which is available on the Ofsted website.

Our inspection judges that you come to school with very positive attitudes towards your studies, and that you take full advantage of the lessons and the excellent range of extra curricular activities. The music and sporting facilities you enjoy are especially impressive. You show respect for one another and the staff, and clearly benefit from the school's very good systems for supporting you.

Your achievements in examinations are consistently high, and are the result of good teaching and your own commitment to learn. In our interviews with groups of students, the inspection team was struck by the way you were able to reflect on your own learning styles and analyse the ingredients of effective lessons.

In the context of an outstanding school, we have asked the teachers to give you more opportunities in lessons to take initiatives and develop the many skills you have. In turn, you can help your teachers by taking greater responsibility for your own learning and by honing your independent study skills.

On behalf of the inspection team, I wish you every success in your studies and in your continuing contribution to the achievements of the Math!

Yours faithfully,

Roy Blatchford Her Majesty's Inspector