

Kimberley 16–19 STEM College

16–19 academy

Inspection dates

24–26 January 2017

Overall effectiveness		Good	
Effectiveness of leadership and management	Good	16 to 19 study programmes	Good
Quality of teaching, learning and assessment	Good		
Personal development, behaviour and welfare	Outstanding		
Outcomes for learners	Good		
Overall effectiveness at previous inspection		Requires improvement	

Summary of key findings

This is a good provider

- Directors, leaders and managers have taken effective action to improve the quality of provision so that the large majority of students make at least good progress.
- Teachers have high expectations for students; the standards of teaching, learning and assessment are good.
- Students' behaviour, attendance and attitude toward their studies are exemplary.
- Students quickly improve their levels of maturity and confidence, and rapidly increase their subject knowledge, which enables the large majority of students to excel.
- The large majority of teachers assess students' progress expertly and provide detailed feedback that enables students to improve rapidly.
- The quality of teaching, learning and assessment in a small minority of subject areas is not yet consistently effective.
- A small minority of vocational level 3 students in 2015/16 were not challenged sufficiently and as a result they only achieved the subsidiary diploma and not the extended diploma of which they were capable.
- Nearly all students progress to higher levels of learning or training when they complete their studies. A large majority progress to their first choice of university.
- Good careers advice and guidance enable students to make informed choices about their next steps.
- The proportion of students who achieve their qualifications is high; the large majority attain high grades.
- Directors, leaders and managers have designed a carefully focused curriculum that is responsive to local and national economic priorities and meets the ambitions of students well.
- Students develop their independent research and analysis skills well.
- Leaders' summary evaluation of the quality of provision does not clearly identify the colleges' strengths and weaknesses and lacks sufficient detail or precision to inform future actions.
- Leaders' quality improvement plans do not contain sufficient detail on how improvements will be made or how progress will be measured.

Full report

Information about the provider

- Kimberley College is a small 16 to 19 academy specialising in science, technology, engineering and mathematics (STEM). It opened as a free school in September 2013 and is operated by Wootton Academy Trust, a multi-academy trust. Most students study at the Stewartby campus, Bedford; the remainder, who are enrolled on arts-based programmes, study at the trust's other school, Wootton Upper School.
- The college offers provision in 11 subject areas. Approximately one third of students follow a STEM-based programme of study including science and mathematics, which has the largest student numbers. The majority of remaining students follow humanities-based subjects. Nearly all of the current 380 students are aged 16 to 18 and are enrolled on study programmes. The large majority of students study AS- and A-level subjects, with the remainder on vocational level 3 programmes. Most students have achieved A* to C grades in English and mathematics prior to starting at the college.

What does the provider need to do to improve further?

- Improve the quality of teaching, learning and assessment in the small minority of subject areas where this is not yet consistently good by ensuring that:
 - managers provide professional development opportunities for the small minority of teachers whose practice is not yet consistently good
 - leaders encourage the most effective teachers to share good practice
 - teachers ensure that students of different abilities have the opportunity to maximise their skills development and make rapid progress
 - teachers assess accurately students' levels of understanding, so that they achieve the high grades of which they are capable
 - teachers develop students' higher-level writing skills to prepare them well for further study and higher education.
- Ensure that leaders' evaluation of the quality or provision draws on accurate information about the quality of teaching, learning and assessment and the impact that this has on outcomes for students.
- Ensure that leaders' quality improvement plans specify targets for improvement, including benchmarking against similar providers, thereby enabling directors, senior leaders and other stakeholders to assess precisely the progress made in raising the quality of provision and its impact on students' progress.
- Ensure that the small minority of students on vocational level 3 programmes study and achieve qualifications that are sufficiently challenging.

Inspection judgements

Effectiveness of leadership and management

Good

- Directors, leaders and managers are appropriately ambitious for the future of the college and its students; since the previous inspection, they have worked with great determination and commitment to bring about clear improvement in the quality of provision.
- Following the previous inspection, the board of directors acted decisively in appointing a new principal to bring greater autonomy to the college within the trust. The principal is now directly accountable to the board for the quality of provision at the college. The principal has worked successfully with staff to establish a shared vision for the college. As a result, staff feel valued and respected; they have ownership of the shared values and contribute enthusiastically to improving their professional expertise and the quality of provision for the benefit of students.
- The principal and leadership team have taken rapid and effective steps to refocus the strategic direction and identity of the college. Leaders now ensure that the college provides a greater breadth in its curriculum which better meets the evolving needs of students, schools and communities while successfully retaining its core focus STEM subjects. The curriculum is closely aligned with regional local enterprise partnership and national priorities. Leaders ensure that strong and productive partnerships with STEM-based employers and universities are used effectively to develop challenging enrichment projects, which enable students to pursue their future studies and careers in science and technology.
- Leaders and managers have a very accurate understanding of the progress that students are making and the actions needed to improve teachers' performance. They have implemented progressively a range of quality improvement strategies and have largely resolved the weaknesses identified at the previous inspection. As a result, leaders have secured sustained improvement in outcomes for the great majority of students.
- Leaders and managers are aware acutely of the areas of college provision where further improvement is still needed. They scrutinise routinely performance data and plan carefully focused actions for improvement. For example, managers now correlate data from lesson observations, student feedback and student outcomes in order to assess precisely the quality of teaching and learning in each subject area. Where teachers do not improve their teaching after receiving targeted support, effective performance management processes ensure that they quickly leave the college. As a result, the overall quality of teaching, learning and assessment is much improved since the previous inspection.
- Teachers utilise the professional feedback they receive from accurate observations of their performance, to reflect on their teaching practice and improve their performance. They value the broad range of professional development opportunities provided for them, including the informal help available from experienced learning coaches to refine specific teaching skills. Leaders and managers recognise that further action is needed to ensure that the quality of teaching and learning is consistently good in the small minority of subjects in the college where this is not yet the case.
- The self-assessment process is thorough and takes good account of the views of key stakeholders. However, the summary evaluation does not capture the strengths and

weaknesses of the quality of provision with sufficient detail or precision to inform future actions. For example, the summary evaluation states that there are recognised departmental strengths, without identifying these specifically. Leaders have not yet identified clearly an appropriate type of provision with which to compare the college's performance.

- Leaders recognise that the college's current quality improvement action plans are not sufficiently specific in setting well-defined and measurable targets for improvement to enable directors, leaders, and managers to identify quickly, and with sufficient precision, the impact of actions on students' achievements and progress. Managers have already begun to develop much sharper quality improvement plans for the college, but it is too soon to judge their effectiveness.

The governance of the provider

- Directors have highly relevant skills which they use effectively to contribute to the development of the college. They have used their skills well to ensure that the provision has evolved to meet the changing needs of students while maintaining a focus on the STEM specialism for which the college was established.
- Directors know the college's strengths and weaknesses well. They receive comprehensive reports and data analyses which they use well to hold senior leaders to account. For example, they challenge leaders routinely on the pace of improvement achieved across the college. Directors also receive helpful advice and information from an advisory board, which includes student leaders, in areas such as college attendance, recruitment and marketing. Directors attend the college frequently, and regularly meet with staff and students.

Safeguarding

- The arrangements for safeguarding are effective.
- Leaders and managers are diligent in ensuring that the college meets its statutory duties for safeguarding. Staff receive thorough ongoing training in safeguarding. Students have a clear understanding of how to stay safe online. They know whom to report to if they have any concerns.
- Managers have established a positive and inclusive ethos that permeates at all levels across the college. As a result, the college provides a secure environment for learning and students feel safe and are safe.
- Staff understand their obligations under the 'Prevent' duty. Managers ensure that appropriate risk assessments are in place to safeguard students' safety, for example regarding visitors to the college or while students are on organised trips outside of the college's campuses.
- Staff and students regularly take part in assemblies and discussions which increase students' awareness of, and sensitivity to, British values and the diversity of modern British society. Managers ensure that students receive training which raises their awareness of the dangers posed by extremism and radicalisation. As a result, students have a good understanding of how to keep themselves safe. However, managers and teachers do not check students' depth of understanding sufficiently well.

Quality of teaching, learning and assessment

Good

- Most teachers have high expectations for students and set demanding target grades based on a thorough analysis of students' starting points. Students work hard to achieve their targets, and as a result, the large majority make good progress and achieve high grades. The majority of students produce a good standard of work and as a result, many achieve high grades in their examinations. Students benefit from well-designed study programmes that closely align to their career and higher education goals.
- The large majority of teachers use the assessment information of students to plan learning effectively; they ensure that tasks and activities challenge the large majority of students to excel. They pay close attention to seating arrangements to ensure that students are grouped appropriately. For example, in a further mathematics lesson, the most able students researched a planned extension topic and then shared their findings adeptly with the rest of the students.
- However, in a small minority of lessons, teachers do not meet the varying needs of students sufficiently and, consequently, the pace of learning is often too slow for the most able students. Their use of questioning techniques does not test, consolidate and reinforce students' understanding successfully. In these lessons, teachers do not link theory to practice routinely; as a result, this inhibits students' ability to apply their knowledge effectively.
- The large majority of teachers ensure that students use their time in lessons productively. They deploy highly effective, probing questioning techniques to check and extend students' understanding. Teachers plan the results of research conducted by students during independent learning time to inform activities within lessons. For example, in an A-level sociology lesson, students researched thoroughly how different sociological schools of thinking interpret religious beliefs; students presented a broad range of contrasting insights and were challenged skilfully to justify their findings by the teacher.
- Most teachers reinforce students' understanding through setting carefully crafted assignments and projects that focus well on increasing students' subject knowledge through research and analysis. Teachers set assignments adeptly to challenge students to improve their higher-level thinking skills and the standard of their written work. Teachers monitor effectively the progress that students are making and provide helpful, evaluative written feedback that enables students to improve their work, deepen their understanding and make good progress.
- Students regularly use the broad range of high-quality resources available on the college's virtual learning environment to aid them to write their assignments, often to a good standard. Teachers frequently provide additional guidance outside lessons through extra workshops and individual support sessions that enable students to accelerate their progress. Teachers often encourage students to complete additional projects or tasks that enable them to develop their knowledge and skills further. For example, an engineering student was challenged by his teacher to develop a tool for placing sensors on Formula One racing cars; good emphasis was placed on the requirement to develop the tool trialling different prototypes to meet the exacting standards demanded by the industry. As a result, the student made rapid gains in understanding and skills through interpreting design specifications, manufacturing products and testing methodology successfully.

- Most students develop their English and mathematics skills well. For example, most teachers ensure that students consolidate effectively their understanding of mathematical formulae relevant to their vocational studies. Most teachers have high expectations of the quality of students' written work, including the correct use of subject-specific terminology, and focus assiduously on spelling and punctuation. As a result, most students produce written work that is suffused with the correct terminology and mostly free of errors. However, a minority of teachers do not focus sufficiently on the structure of students' written work; for example, a minority of students submit completed written assignments that do not feature correct use of paragraphs. This limits their ability to produce high-quality written work and does not prepare them sufficiently for higher-level academic study.

Personal development, behaviour and welfare

Outstanding

- Students demonstrate an excellent attitude toward their studies. They arrive well prepared to lessons and take great pride in the work they complete. Students' behaviour around the college and in classes is exemplary; they show high levels of respect to their peers and teachers. Attendance and punctuality are outstanding. Staff monitor student attendance very well; they identify swiftly any absenteeism and notify both student and parents immediately, resulting in very low absence rates.
- Most students have a strong sense of justice and equality, which manifests in high levels of respect they show for the views and opinions of others. They speak confidently about tolerance and respect and ask probing questions to extend their knowledge and deepen their understanding. Teachers reinforce students' understanding of equality and diversity through lively discussions and debates conducted in a respectful manner which allow students to express their beliefs in a non-threatening and inclusive environment.
- Effective transition and induction processes ensure that teachers secure cogently students' personal and social development needs at the beginning of their time at the college. Teachers and mentors quickly build positive relationships with students that enable them to challenge students to develop their personal and social skills effectively. Regular progress reviews ensure that students make at least good progress and rapidly develop their personal and social skills. These approaches help students mature quickly and improve their confidence in all aspects of their personal development. Where students require more specialist support, such as counselling, trained professionals are assigned swiftly to help them.
- All students benefit from work experience and/or work-related learning activities. Work placements are closely aligned to students' career goals and aspirations. As a result, students gain valuable practical skills and experience of the workplace and the careers to which they aspire. They also improve their confidence and ability to participate in teamwork activities. Managers and teachers monitor carefully the development of students' personal and social skills while on work experience and use this information to help plan further learning.
- Teachers encourage students to develop their independent learning skills well. As a result, students make good use of their time outside of lessons and at home to increase their depth of understanding in their chosen subjects.
- Teachers', tutors' and mentors' very good personal and academic support for students

enables the majority of students to make good or better progress. Mentors and tutors work diligently with those who fall below their academic or attendance targets. They agree appropriate interventions with students, which include additional work or, if required, purposeful contact with students' parents/carers. As a result, very few students fall behind with their studies and those that do catch up rapidly and achieve their target grades.

- Students benefit greatly from the fortnightly assemblies planned by teachers and managers that raise students' awareness of diversity and the risks associated with radicalisation. As a consequence, students know how to keep themselves safe from such risks.
- Students have plentiful access to, and regularly attend, a broad range of enrichment activities, many of which are aligned closely to their areas of study. For example, those studying government and politics visit the Houses of Parliament and engineering students visit the engineering department at a local university. Nearly all students participate in trips and visits relevant to their subject studies, a high proportion of which are overseas. In addition, students improve their social and team-work skills through participating frequently in leisure-related activities such as 'rampaging chariots', where they build and race homemade chariots around the college grounds.
- Students benefit from highly effective impartial careers advice and guidance which assist them in making well-informed choices about their future options. Teachers and managers ensure that work-related learning and work experience link well with students' career aspirations. This enables students to confirm their progression choices before making a final decision about the further/higher education or employment option that they wish to pursue.

Outcomes for learners

Good

- The large majority of students complete their courses and make good progress relative to their prior attainment. Those studying A-level sociology and English literature make excellent progress from their starting points. The proportion who achieve high grades on AS- and A-level programmes is good, and has increased significantly since the previous inspection. Nearly all of the small minority of students on vocational level 3 programmes achieve their qualifications, the majority with high grades. However, in 2015/16 too many vocational students reduced the size of their qualification from diploma to sub-diploma during the year due to their lower than expected levels of progress.
- Nearly all students who join the college without English and mathematics at GCSE grade C or above improve their grades. The proportion of students who achieve A* to C grade passes at GCSE English and mathematics is consistently good and above those of other similar providers nationally.
- Through effective monitoring and support, most groups of students progress and achieve at a broadly equal rate. Where managers have identified gaps in the achievement of high grades, such as those between male and female students, they analyse the reasons for underperformance thoroughly, and take appropriate action. Leaders pay particular attention to the progress of minority groups, such as those in receipt of bursary payments or free school meals. As a result, these students make good progress.

- The large majority of current students are making good progress. Teachers and managers monitor the progress of all students effectively. They ensure that students receive the support and guidance they need to achieve the grades of which they are capable.
- Students consistently produce work to a high standard and develop their study and work-related skills well. Teachers encourage students to hone their practical skills through work-related activity. For example, music theatre students deliver a much-acclaimed public performance in a theatre in Bremen, Germany each year. Students improve rapidly their presentation and communication skills by sharing their findings assiduously from research assignments with other students during lessons.
- Most students on AS-level programmes progress to A level and stay with the college to complete their qualifications. Managers capture information on students' careers aspirations effectively, and use this to guide them well. As a result, on completion of their programmes, almost all students progress to higher education or employment. The large majority of A-level students successfully progress to their first choice of university.

Provider details

Unique reference number	139798
Type of provider	16–19 academy
Age range of learners	16–18
Approximate number of all learners over the previous full contract year	414
Principal/CEO	Mr T Detheridge
Telephone number	01234 762890
Website	www.stemcollege.co.uk

Provider information at the time of the inspection

Main course or learning programme level	Level 1 or below	Level 2	Level 3	Level 4 or above				
Total number of learners (excluding apprenticeships)	16–18	19+	16–18	19+	16–18	19+	16–18	19+
	–	–	–	–	375	4	–	–
Number of apprentices by apprenticeship level and age	Intermediate	Advanced	Higher					
	16–18	19+	16–18	19+	16–18	19+		
	–	–	–	–	–	–		
Number of traineeships	16–19	19+	Total					
	–	–	–					
Number of learners aged 14 to 16	–							
Number of learners for which the provider receives high-needs funding	–							
Funding received from:	Education Funding Agency							
At the time of inspection, the provider contracts with the following main subcontractors:	None							

Information about this inspection

The inspection team was assisted by the principal, as nominee. Inspectors took account of the provider's most recent self-assessment report and development plans, and the previous inspection report. Inspectors used group and individual interviews, telephone calls and online questionnaires to gather the views of students and employers; these views are reflected within the report. They observed learning sessions, assessments and progress reviews. The inspection took into account all relevant provision at the provider.

Inspection team

Shane Langthorne, lead inspector	Her Majesty's Inspector
Alan Winchcombe	Ofsted Inspector
Heather Barrett-Mold	Ofsted Inspector

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