

THE JCB ACADEMY

‘THE CURRICULUM JOURNEY’



The catalyst!

JCB needed many more young people of the right calibre and attitude who would be interested in careers with JCB and other successful regional manufacturers

Sir Anthony Bamford Chairman, JCB Group

"I am passionate about the importance of manufacturing to Britain and The JCB Academy shows we are prepared to invest in creating the next generation of young engineers"



University
Technical
Colleges



Our Vision

- To develop ***employable*** young people with:
 - Positive attitudes
 - Emotional intelligence
 - Intellectual horsepower
 - Appropriate competencies
- Achieve excellence in academic and technical education
 - A catalyst to improve provision across the region for engineering, manufacturing and business skills

What influenced your curriculum model?

- A School visit to JCB - "***ah now I understand***"
- Consultations with
 - many employers
 - FE Colleges, Universities
 - Parents & Teachers and students

The Result – ***applied learning throughout***

Therefore the Key Objective is:-

***No child should ever ask
"why am I learning this?"***

How did you achieve the vision?

- People and Organisations grasping the vision and being prepared to explore what was possible.
 - Employer representatives
 - Teachers
 - Partner Universities and an FE College
 - OCR Awarding Body
 - Local Education Authority

Attended 5 x 2½ day Curriculum Conferences

The Academy Day

- Teaching Day – 8:30 a.m. until 4:00 p.m. (32.5 hours pw)
- 5 x 8 week terms (40 weeks per year)
- One week of work experience each year (Yr10-Yr13) – takes place in holidays
- Extension Activities 4:00 p.m. until 5:00 p.m.– compulsory for all students.



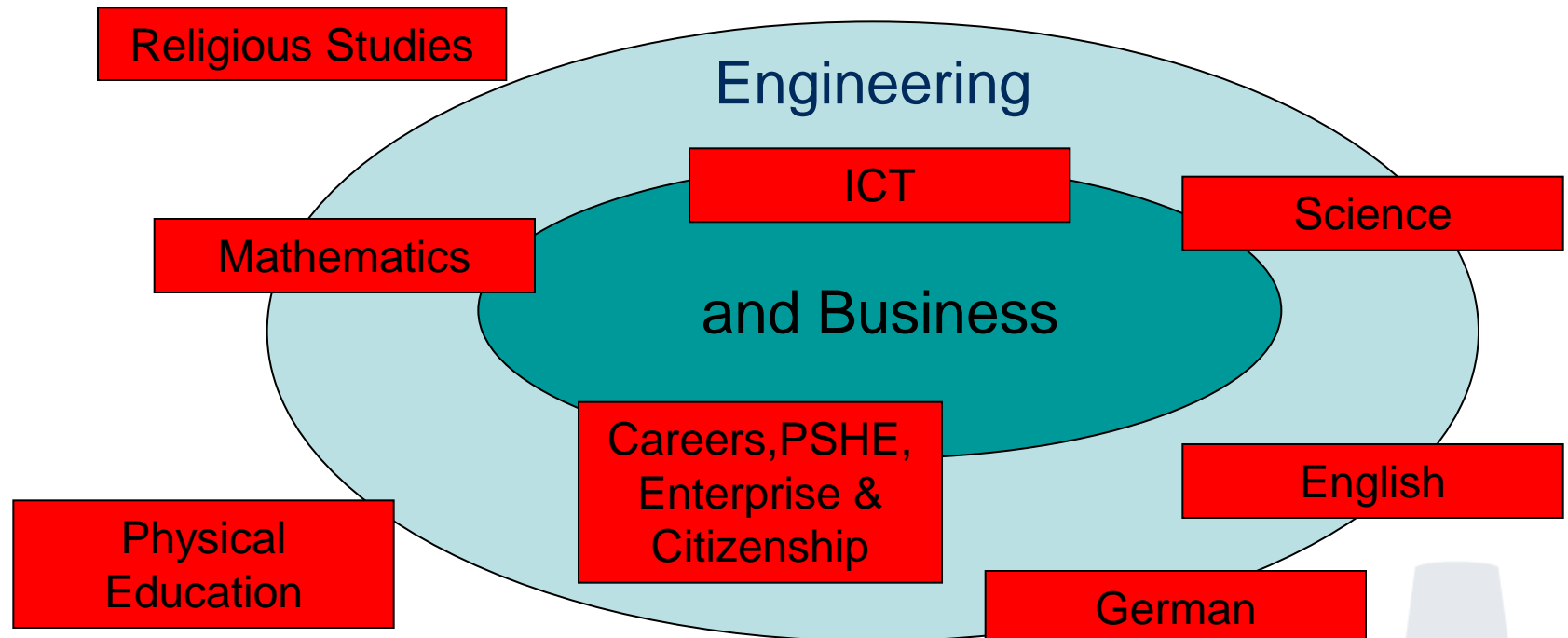
Extension options

Greenpower F24 Challenge
Shell Eco-marathon
Formula Schools
4x4 in Schools
TrackNAV Challenge
Young Engineer for Britain
F1 In Schools
Football/cricket - boys
Girls Football/rounders/netball
Fitness
Badminton
Chess
Computer Animation
Private study
Eco Warriors
World Challenge
Digital Photography
Combined Cadet Force
Young Journalist
Music – Instrument tuition or group performance
Dance
Drama club
Community Challenge
Additional Science
Additional Modern Language

Curriculum at KS4

- All students study the Engineering Diploma and a Business Qualification
- They also undertake GCSEs in Mathematics, Science (at least 2 GCSEs), English, German and ICT
- They also cover Citizenship, Physical Education, Enterprise, Religious Studies, Careers Education, Guidance and Personal, Social and Health Education

Integrating the Curriculum



KS4 modules

- 1 – Off Road Challenge
 - Harper Adams University College
- 2 – Engineering Applications of Computers
 - Network Rail
- 3 – Engineering Design
 - Rolls-Royce
- 4 – The Engineered World and Electronic Systems –
 - Royal Academy of Engineers
 - The Institution of Engineering and Technology
 - The Institution of Mechanical Engineers
 - Parker Vansco
- 5 Producing Engineered Solutions
 - Rolls-Royce
- 6 – Maintenance
 - JCB
- 7 – Innovation, enterprise and technological advance
 - Bombardier
- 8 – Manufacturing Engineering
 - Toyota

9 - Project

Post-16 Curriculum

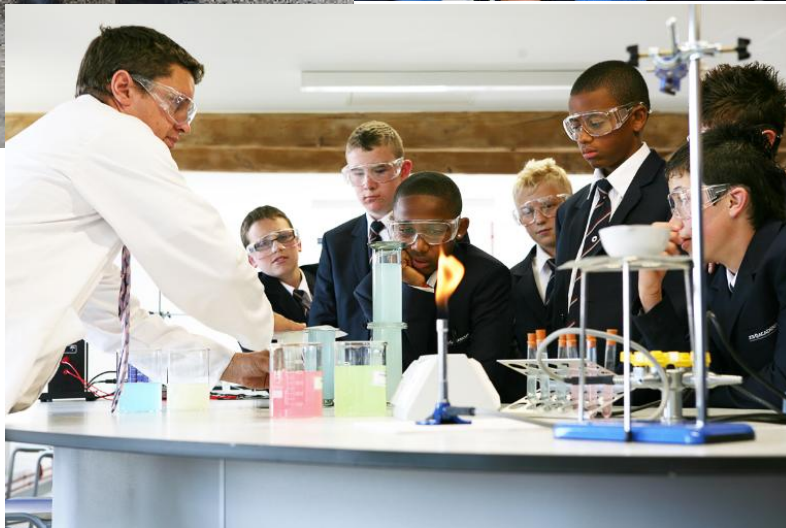
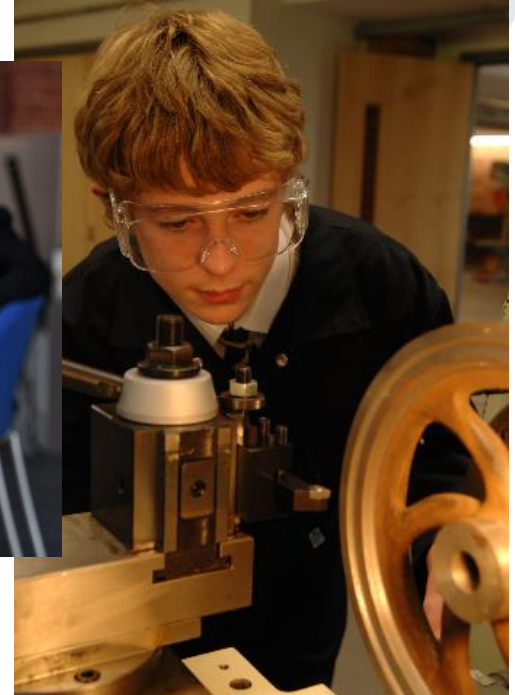
- Advanced Diplomas:
 - Engineering or
 - International Business
- Range of 'A' Levels to complement the Diploma programme being delivered at The JCB Academy or by Thomas Alleyne's High School

The Learning Environment



University
Technical
Colleges

Developing Engineers And Business Leaders For The Future



Partners



Rolls-Royce



TOYOTA



BOMBARDIER



e-on



Rexroth
Bosch Group



THE UNIVERSITY OF
WARWICK



nationalgrid

Institution of
MECHANICAL
ENGINEERS



University
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What have been the challenges?

- The Engineering Diploma
- Designing the most appropriate qualifications and assessment methods
- Inducting non teachers into classroom practices
- Recruiting sufficient skilled 'leading edge' practitioners from business and industry
- Balancing the budget on an expensive specialism

Students – Year 10

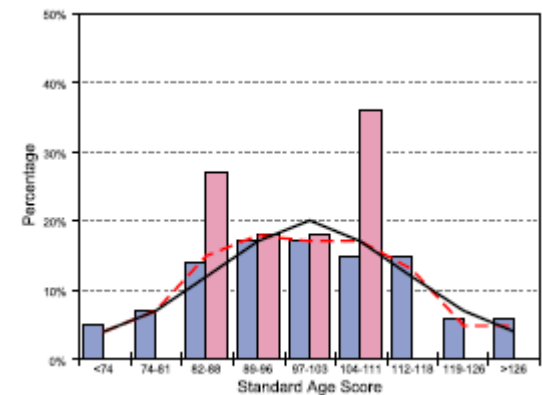
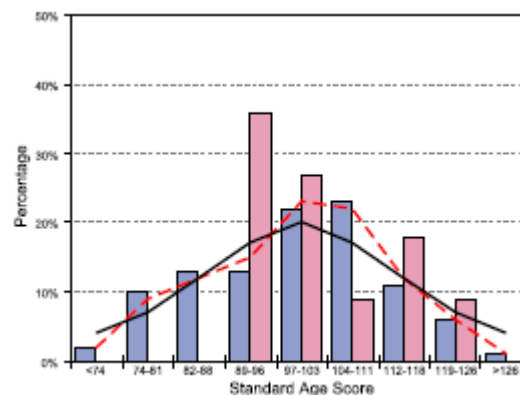
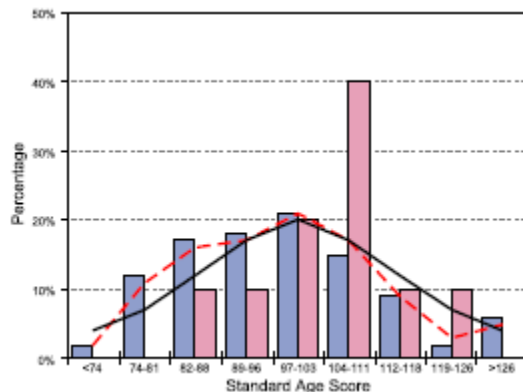
- 90% Male
- 36% Special Educational Needs – mixture of school action and action plus.

Cognitive Ability Test Scores

Non Verbal (98.6)

Verbal (99.8)

Quantitative (99.8)



Outcomes to date - Mathematics

- Linear Early Entry – 73% of cohort have currently achieved a C grade or above in Mathematics.
- Modular Entry – The remaining students are working on the modular course. 14% of the cohort are currently on a C grade from the modules so far with a further 5% on a D grade.
- In summary:
 - 87% achieved or currently working at a C grade
(National figure 58.6%)
 - 92% achieved or currently working at least a D grade.
- C or D grade Students have time available within the curriculum for 2 hours additional Maths when required

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