

# 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"*



# 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.



University  
Technical  
Colleges

## Extension options

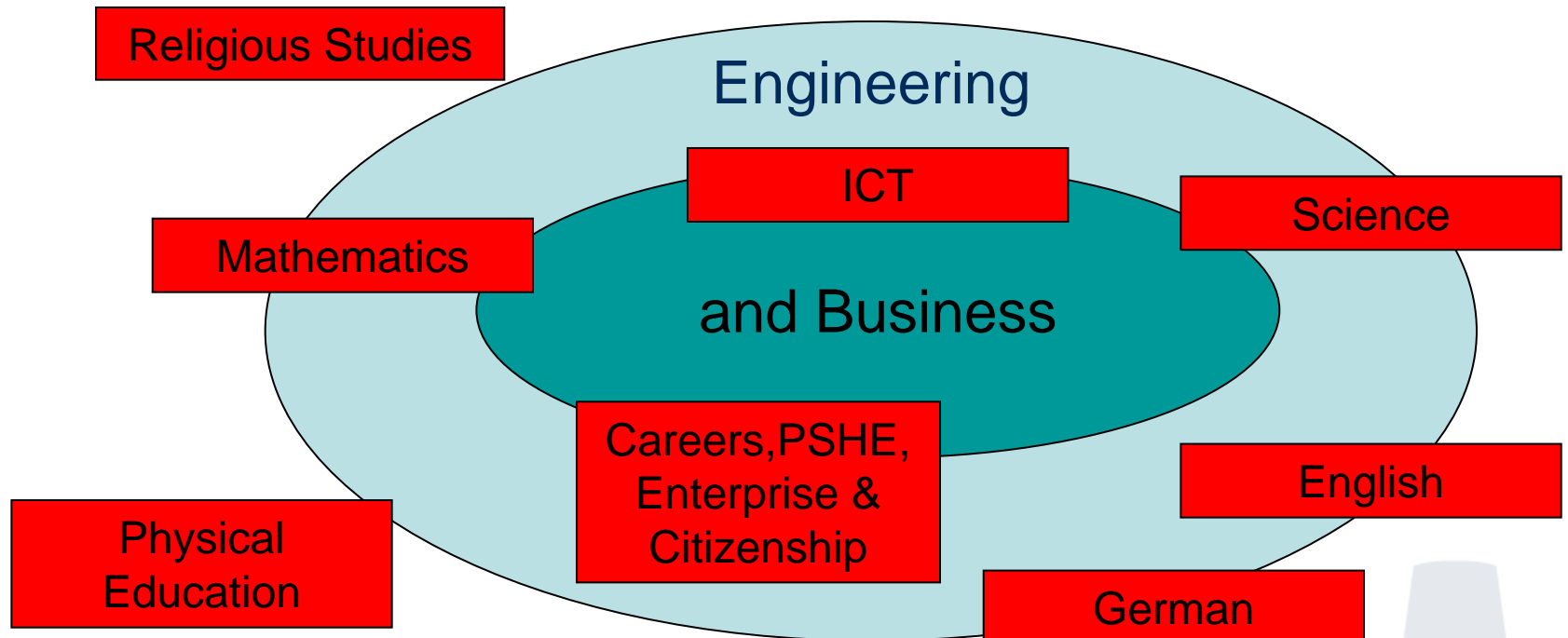
Greenpower F24 Challenge  
Shell Eco-marathon  
Formula Schools  
4x4 in Schools  
TrackNAV Challenge  
Young Engineer for Britain  
F1 In Schools  
Football/cricket - boys  
Girls Football/rounders/netball  
Fitness  
Badminton  
Chess  
Computer Animation  
Private study  
Eco Warriors  
World Challenge  
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

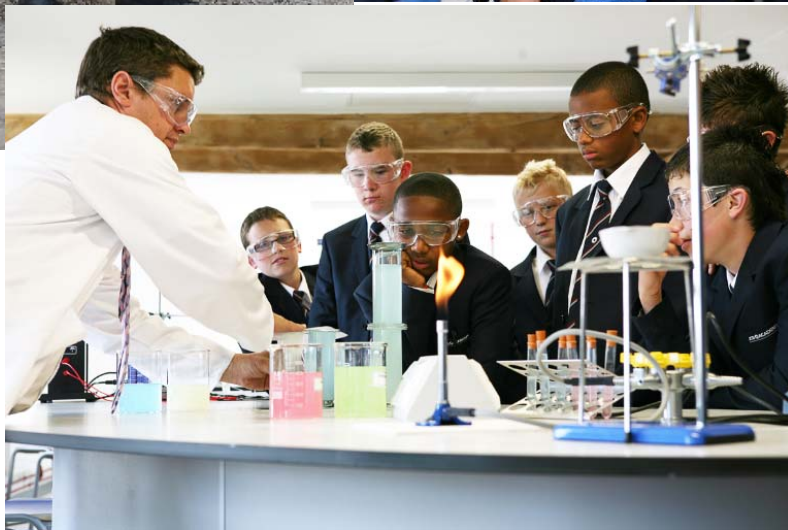
- Advanced Diplomas:
  - Engineering or
  - International Business
- Range of 'A' Levels to complement the Diploma programme being delivered at The JCB Academy or by Thomas Alleyne's High School

# The Learning Environment



University  
Technical  
Colleges





# Partners



Rolls-Royce



TOYOTA



BOMBARDIER



e.on



nationalgrid



University  
Technical  
Colleges



# 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

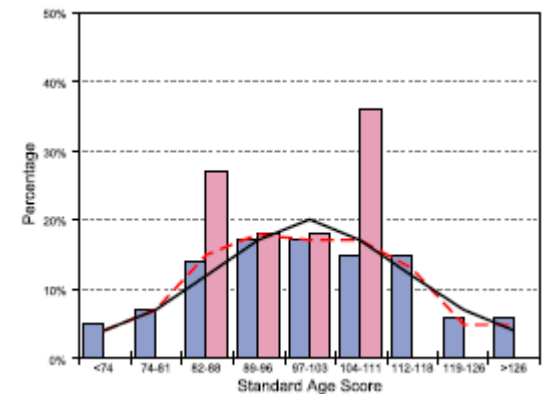
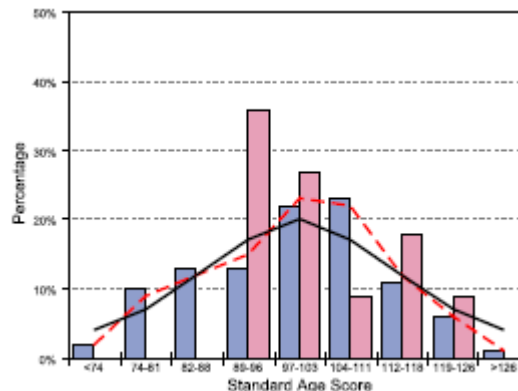
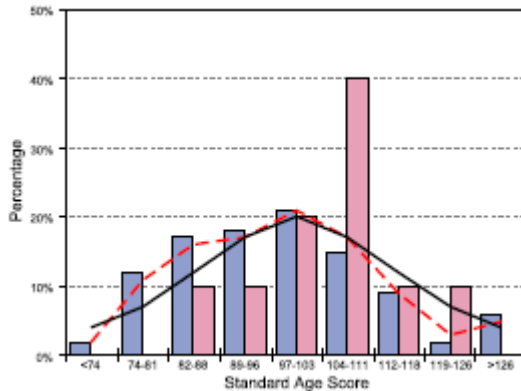
- 90% Male
- 36% Special Educational Needs – mixture of school action and action plus.

## 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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