

Project Guidelines

Think Growing Key Stage 3
Think Curriculum
Think Success
Think Engineering!

The project guidelines are as follows:-

- Project is of approximately 16-20 hours duration.
- Project is for Key Stage 3, of team sizes no greater than 4. Unlimited amount of teams per school can enter.
- The project has been designed and developed by DT teachers for DT teachers, to aid teachers in delivering the Key Stage 3 Design & Technology curriculum.
- A CD will be provided which will contain a scheme of work to link Think Engineering to the Design & Technology curriculum developed by the Think Engineering Steering Group.
- Maximum number of pupils who attend the Finals Day: 10 pupils per school.
- An exhibit stand and table are provided on the day with electrical points available.
- One pupil per team needs to be represented at the finals.
- Each 'Think Engineering' school teacher will choose their top teams / products to exhibit and enter for assessment (from all student projects the school have created whilst participating in the programme) - up to a maximum of ten. Therefore, at least one pupil needs to be present at the exhibition finals to represent their team. Therefore, the more projects submitted (up to a maximum of ten), then the more chance of a prize!

The prizes for the Think Engineering programme will be:

1. Overall Winning Team - Best Engineering promotional Project
2. Best Pupil
3. Best Teacher
4. Best Company Mentor
5. Best Think Engineering Partnership
(Double Award - School and Company)
6. Best (Marketing) Trade Stand
7. Best Portfolio Case Study

EEF West Midlands

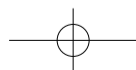
Education and Training Development Department
St James's House
Frederick Road
Edgbaston
Birmingham
B15 1JJ

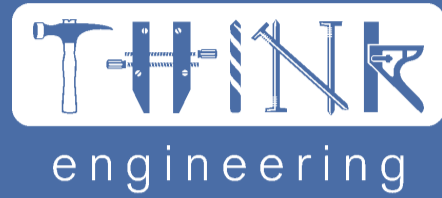
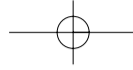
Tel: 0121 456 2222
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Email: educationdept@eef-westmids.org.uk
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Aston Manor and Bartley Green pupils get excited about Think Engineering !





Foreword

Did you know that over 40% of the UK's earnings from export depend upon engineering?

Did you know that 45% of the economy's Research & Development depend upon engineering?

Did you know that 1.7 million people work in engineering, the majority of them in skilled work?

Engineering is one of the most important sectors of the economy. Nearly every aspect of our everyday life is to some extent dependent on our engineers. And, the demand for skilled people is rising. Unskilled jobs are disappearing to countries which pay lower wages. For our country to remain prosperous it is vital that we compete with the best in the world by using people's skills to the maximum.

The EEF 'Think Engineering' programme is designed to encourage Key Stage 3 pupils to use generic engineering skills and to apply these in an exciting and dynamic way; giving them the opportunity to experience engineering as a 21st century science.

In working with employers and linking the programme to the Design and Technology KS3 curriculum, 'Think Engineering' is here to empower teachers to deliver the Design and Technology subject, whilst building strong relationships with local industry.

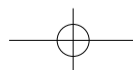
Think Engineering has been designed by teachers and employers – for teachers and employers! The project is fun, stimulating and educative for Key Stage 3 pupils.

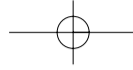
Remember, industry needs talented young people with technical and practical skills and a real desire to progress.

So next time you think of a Design and Technology project
– Think Engineering!!



Ian P Smith
Chief Executive
EEF West Midlands





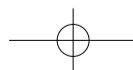
Project Remit

"There is to be an engineering road show in the next 16 weeks. Your school will be partnered with an engineering/manufacturing company, and you have **to produce an electro mechanical promotional product for your partner company for their trade stand, including a case study portfolio** (for competition assessment purposes). You will examine and research the products the company currently makes, understand the company (i.e. their mission statement, their logos etc) and engineer your promotional product based on the theme of this research. In team sizes of no greater than 4, your promotional product will need to incorporate your school image as well as your partner company's logo on to it. Remember, your finished promotional product must also have electro-mechanical components to it. **Your product will be promoting your Partner Company at the trade show, your company will want to stand out from the rest, so be creative!**

So for instance, if you school is partnered with a clock manufacturer call Blueberry Clocks Ltd, then you may design and engineer a product that uses the concept of a clock; example – a cuckoo clock that sends a cuckoo out on every hour chime (or every time you press a button), with the cuckoo having the name 'Blueberry Clock' embossed onto it with your school logo."



Think Engineering!



Your Case Study Overview

For your Think Engineering project, each school team will need to produce a written case study to record their achievements. A typical case study would consist of the following:

Synopsis

Introduction

- Partner company background, including a report on the company visit

Market Research

- Roles and responsibilities/ organisation chart
- Mind mapping
- Timing plans
- Choose team name & mission statement

Design / Drawing

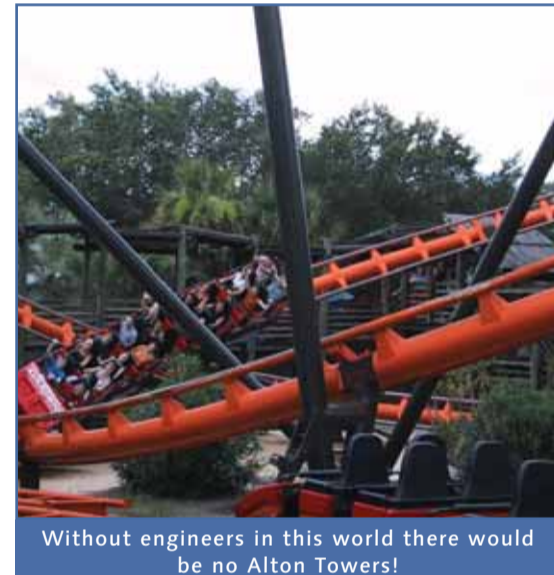
- Materials utilisation
- Curriculum related activities

Prototype

- Costings
- Photos of work in progress and of final product

Results

Conclusion



The above is just for guide lines - each school team can produce their own unique portfolio case study.

The teams for 2005 are:

- | | | |
|---|---|---|
| 1. Wednesfield High School
Smiths Aerospace | 6. Bartley Green Technology School
Prescott Powell | 11. Blake Valley Technical College
Thyseen Krupp |
| 2. Alleyne's High School
Elster Metering Systems | 7. Aston Manor School
Wild Manufacturing | 12. Blue Coat Church of England School
Stokes Forgings |
| 3. Belvidere School
Celestica | 8. Archbishop Illsley School
Land Rover | 13. Turves Green Girls School
DRB Engineering |
| 4. Ludlow Church of England School
McConnel | 9. Stoke Park School
Products Europe | |
| 5. Cheslyn Hay High School
Bloxwich Engineering | 10. Brownhills Community School
Webasto Roof Systems | |