

Teachers' Notes - Isambard Kingdom Brunel

The Project and the National Curriculum

History

Elements of the 'Isambard Kingdom Brunel' section might be used for Unit 11 of the QCA Scheme of Work at Key Stage 3, Industrial Changes: Action and Reaction.

This unit is broken down into four sections:

1. What changes happened in the locality around the school?
2. Local industry: What happened?
3. Did everyone agree with the industrial changes?
4. How industrialized was Britain by 1850?

Full details of the Key Stage 3 scheme of work for History can be found on the DFES website:

http://www.standards.dfes.gov.uk/schemes2/secondary_history/teaching

The activities associated with the project give opportunities to meet several of the unit's requirements. Section 4 is catered for in *The Life and Times of IKB*, *IKB: The Complete Works* and *The Legacy of IKB*.

The activities included on these downloads can also be used to encourage individual research.

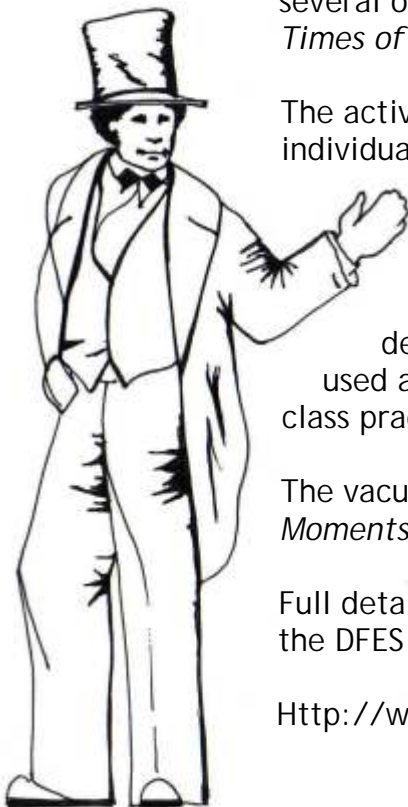
Science

The vacuum cannon experiment included in *The Atmospheric Railway* download is incredibly simple and a graphic demonstrator of the power of atmospheric pressure. It could be used as a teacher demo or, resources allowing, could be an enjoyable class practical.

The vacuum cannon could be used in the teaching of Unit 9L, *Pressure and Moments*, of the QCA Scheme of Work for Science.

Full details of the Key Stage 3 Scheme of Work for Science can be found on the DFES website:

Http://www.standards.dfes.gov.uk/schemes2/secondary_science/



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Design and Technology

Elements of the 'Isambard Kingdom Brunel' section might be used to support the delivery of Design and Technology at Key Stage 3.

There are opportunities for students to develop their relevant knowledge and understanding of the world around them, to consider what it consists of, how it is made up and how individuals can interact with it and improve it, by making comparisons with the past.

The bridge building activity in 'The Legacy of IKB' is particularly pertinent. If the opportunity exists for a visit to HMS Warrior 1860 this could also be tied in with an investigation of the shapes and structures used to provide strength in the ship's rigging.

Further research could also incorporate investigating materials in Resistant Materials and also in Textiles; investigating food preparation and nutrition in Food Technology.

