

The greatest of Victorian engineers

5 A In the hundred years up to 1860, the work of a small group of construction engineers carried forward the enormous social and economic change that we associate with the Industrial Revolution in Britain. The most important of these engineers was Isambard Kingdom Brunel, whose work in shipping, bridge-building, and railway construction to name just three fields, both challenged and motivated his colleagues. He was the driving force behind a number of hugely ambitious projects, some of which resulted in works which are still in use today.

10 B The son of an engineer, Brunel apprenticed with his father at an early age on the building of the Thames Tunnel. At the age of just twenty, he became engineer in charge of the project. This impressive plan to bore under the Thames twice suffered two major disasters when the river broke through into the tunnel. When the second breach occurred in 1827, Brunel was seriously injured during rescue operations and further work was halted.

15 C While recovering from his injuries, Brunel entered a design competition for a new bridge over the Avon Gorge near Clifton. The original judge of the competition was Thomas Telford, a leading civil engineer of his day, who rejected all entries to the competition in favour of his own design. After considerable scandal, a second contest was held and Brunel's design was accepted. For reasons of funding, however, exacerbated by social unrest in Bristol, the project was abandoned in 1843 with only the towers completed. After Brunel's death, it was decided to begin work on it again, partly so that the bridge could form a fitting memorial to the great engineer. The entire structure was finally completed in 1864. Today, the well-known Clifton Suspension Bridge is a symbol of Bristol, just as the Opera House is of Sydney. Originally intended only for horse-drawn traffic, the bridge now bears over four million motor vehicles a year.

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- 1 The contest for and construction of a suspension bridge
- 2 An inspiring engineer
- 3 The construction of a tunnel under a river