
Resource Materials: Unit 14 Developing and Creating Websites

THE CLIFTON SUSPENSION AND THE ROYAL ALBERT BRIDGES

Brunel lived from 1806 to 1859 and was responsible for a host of engineering feats, ranging from railways and bridges through to ocean going steam powered ships. Of his many successful projects, the Clifton Suspension and the Royal Albert bridges, along with the SS Great Britain, are probably the best known.

The Clifton Suspension Bridge

The basic facts about this bridge are:

- The bridge crosses the Avon Gorge in Bristol, between Clifton and Leigh Woods.
- The bridge was built after Brunel won a competition to provide a suitable design. Of the twenty designs submitted, Brunel produced four.
- Construction started in 1836 and ended in 1864. The bridge was opened on Thursday 8th December 1864.
- The bridge was completed after Brunel's death.
- The bridge is a true suspension bridge as it is suspended between two massive stone pillars on either side of the gorge.
- The bridge cost £75,000 to build.
- The bridge is 1,352 feet long with a span between the two pillars of 703 feet. The bridge stands 245 feet above the high water level and weighs 1,500 tons.
- The bridge was built to carry horse drawn and foot traffic, but is now used by millions of cars a year. The original walkways on either side of the bridge still allow people on foot to cross.
- Recently, the bridge's trustees have chosen to close the bridge at times when a high volume of foot traffic is expected, in order to protect the bridge from undue strain.

The Royal Albert Bridge

The basic facts about this bridge are:

- The bridge crosses the River Tamar between Plymouth and Saltash.
- The bridge was designed to carry the Cornwall Railway.
- The bridge was completed in March 1859. The first train from Plymouth to Truro ran on the 12th of April 1859 and Prince Albert officially opened the bridge on Monday the 2nd of May 1859.
- Goods traffic has been using the bridge since October 1859.
- Brunel was present at the opening of the bridge, but was so ill he had to be transported across in a special carriage.
- The bridge is 2200 feet long and is 100 feet above high water level.
- The bridge is a combination of beam bridge, suspension bridge and arch.
- The main span of the bridge was set deliberately wide so as to allow large river traffic to pass between as the bridge itself is very near to the busy Devonport Dockyard.
- The bridge cost £225,000 to build and is regarded by many as Brunel's ultimate engineering achievement.