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Vocabulary

Key Vocabulary	Definition
stable	an object that is not likely to give way or overturn
design brief	the steps that you need to create and finish a project
prototype	a first edition of something that is new
balance	an even distribution of weight to keep something upright
construct	build or make something
trusses	a framework that supports another structure
arches	a curved symmetrical structure
suspension	a system of springs to support a structure and stop it moving



Year 1 Knowledge Organiser - Bridges

Key Questions

What materials are strong enough to make a bridge?

What makes a bridge strong?

Why do we need bridges?

Work Examples



Timeline

Edmund Cartwright
1743— 1823

Isambard Kingdom Brunel
1806-1859

Samuel Fox
1815-1887

Gustave Eiffel
1832- 1923

Joseph Strauss
1870—1938

Richard Reed
1973-present

Key Engineer

Isambard Kingdom Brunel

1806- 1859



Key Facts

Went to school in England and France

Brunel was the son of a French engineer, Marc Isambard Brunel, and he showed great skill at drawing and geometry from a very early age.

Brunel worked with his father on a project to create a tunnel under the River Thames. He was badly injured in 1828 when the tunnel became flooded.

In 1830, Brunel won a competition to design a bridge to span the River Avon. Work started on his Clifton Suspension Bridge, but it wasn't completed until 1864 (after Brunel's death).

He designed tunnels, bridges and viaducts for Great Western Railway.

Isambard Kingdom Brunel designed Paddington Station and it opened in 1854.

He also designed the first steam ship to travel across the Atlantic.



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