

The Arch

The arch is a curved bridge design over 3000 years old. It was the most popular design up until the industrial revolution when new materials allowed architects to create new designs.

Structurally, the downward forces are transferred into the curvature of the arch and push into the abutments. The abutments must be massive enough to carry the loads, especially if outward forces exist.

True arch bridges have a **keystone** in the top-center of the arch. It is a trapezoid that holds everything together. The weight of the central keystone pushes the surrounding rocks down and outward, making entire structure very rigid and strong.

