

Structure – Bridge Over a River

Key Vocabulary

Structure	A strong and stable object made by joining parts.
Support	Something that holds up or helps to keep something standing or steady.
Suspension	When something hangs down and is held up by ropes, wires, or cables.
Beam	A long, straight piece of wood, metal, or other material that helps hold up weight.
Arch	A curved shape that can hold up weight and is very strong.
Bridge	A structure that goes over something, like a river or road, so people or vehicles can cross safely.



Arch Bridge



Truss Bridge



Beam Bridge



Suspension Bridge

Design Brief

Your challenge is to design and build a bridge to help someone cross over a river safely. The bridge must be strong enough to hold a weight, stable so it doesn't fall over, and wide and long enough for a small toy figure to cross. You should consider what makes real bridges strong and which shapes can help to make your bridge stronger. Finally, you will need to test your bridge to see if it can hold weight in the middle and stay standing. To be successful, your bridge should not collapse, it should hold the weight, and it should look neat and well-made.



Exploring a brief

Explore existing products

Evaluate existing products

Develop skills

Apply and plan

Create

Evaluate