

Bridges

Beam Bridges

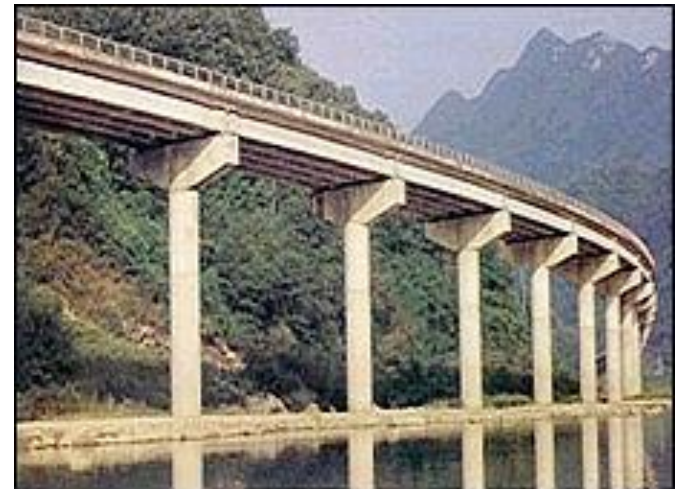
- Simplest kind of bridge.
- Can simply consist of horizontal beam supported at each end by pillars.



- Must be stiff – resists twisting or bending under load.
- Normally cover short distances. Longer = weaker.

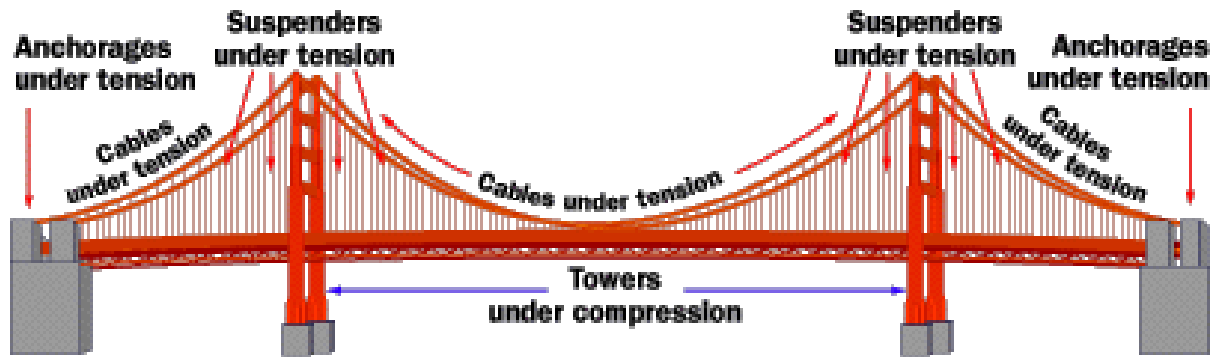


Beam Bridges

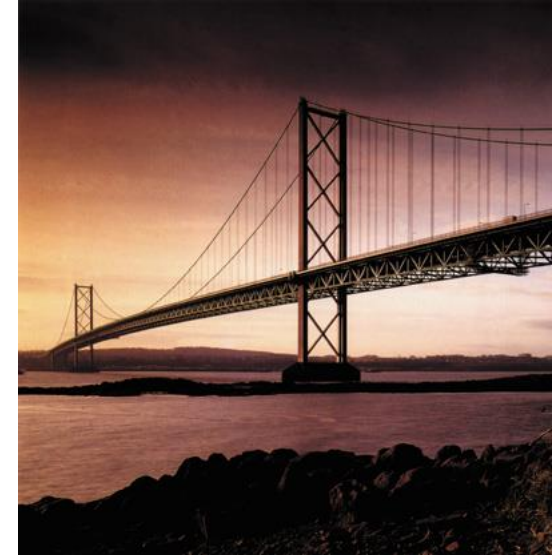


Suspension Bridges

- Originally made from rope and wood.
- Strong and lightweight.
- Most expensive type of bridge to build.
- Suspend the roadway from huge main cables.



- Cables extend from one end to other.
- Cables rest of high towers and must be secure.
- Built to cover long distances.
- Most famous and beautiful bridges.
- Weight of bridge is distributed safely and evenly.

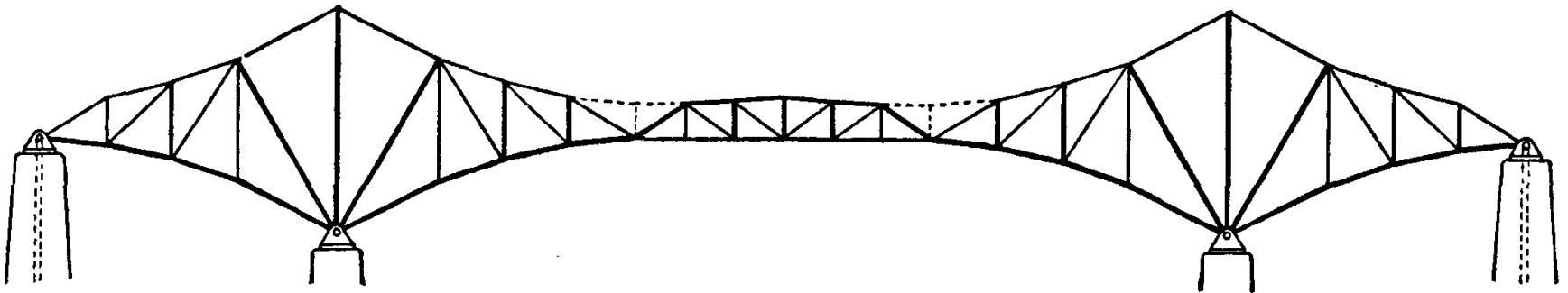


Suspension Bridges

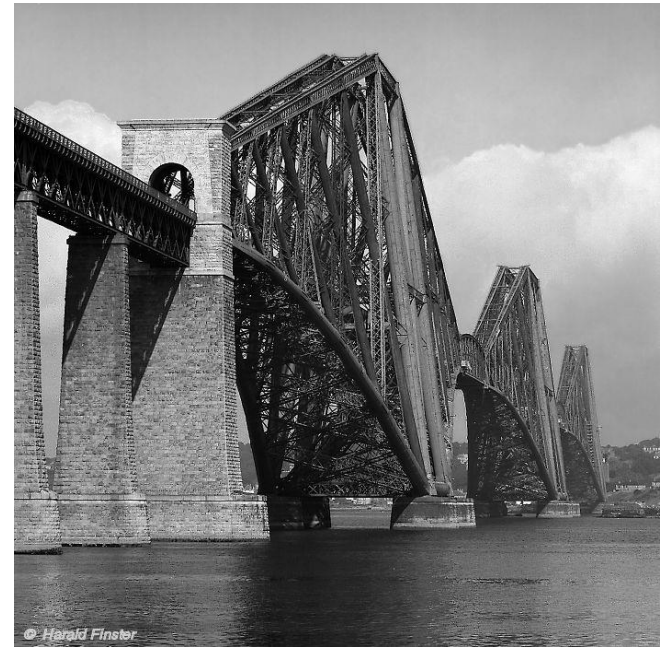


Cantilever Bridges

- Support placed in middle of bridge, not at ends.
- Built using two cantilevers (beams) back to back with short beam in between the cantilevers.



- Cantilevers meet in the middle to support bridge.

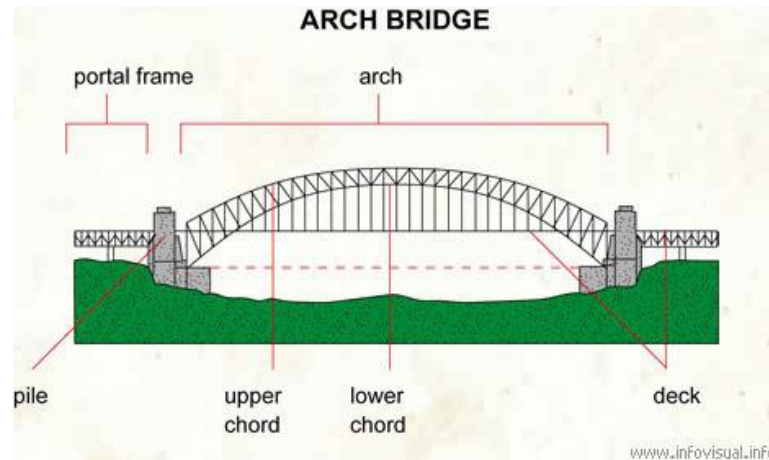


Cantilever Bridges

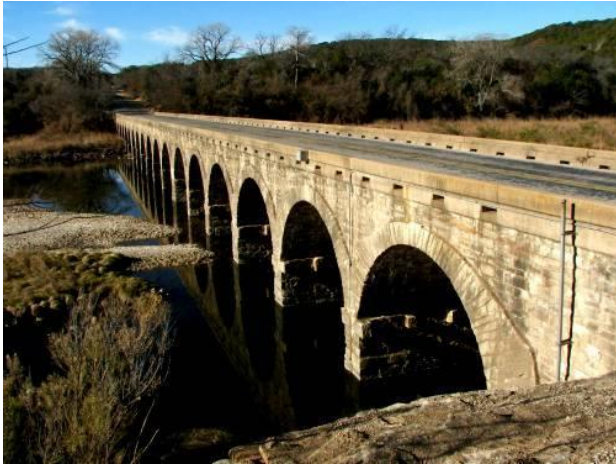


Arch Bridges

- One of the oldest types of bridges.
- Originally built of stone or brick.
- Now built using steel or reinforced concrete.
- Bridge is shaped as a curve.



- Weight of load is supported at each end.
- Ends are called 'Abutments'.



Arch Bridges

