

Concept 4 Glossary



biotensegrity: a tensegrity model of the body; bones are in compression while muscles carry tension

bottom chord: the bottom member of a truss

compression: “pushing” force on a member that causes it to shorten or buckle

deflected shape: the shape a member or structure takes when subjected to a load

funicular form: the form taken by a cable or rope under any given load

kingpost truss: a truss with a central vertical post

membrane structures: spatial structures made of tensioned pieces of fabric-like material

pinned joint (or support): a joint that is free to rotate (but not translate)

roller support: a support that is free to rotate and translate along the surface upon which the roller rests

span: the distance an object covers from end to end without support

stress: quantity of internal forces that neighboring particles of a continuous material exert on each other

tensegrity: a combination of tension and compression elements to form a structural system

tension: a “pulling” force on a member that causes it to elongate

truss: an assembly of slender members joined together at their end points to form a structural system that is typically triangulated

two-force member: a member that is in tension or compression with two equal and opposite forces acting through the central axis

