**Stick Together/Civil Structures**

**Content Instruction - science/math concepts (depth based on grade)**

Forces (gravity, tension, compression, etc)

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# Bridge Types: Tensile & Compressive Forces

<https://www.youtube.com/watch?v=33ZfJw8cEFY>

# Bridge Types and Forces

<https://www.youtube.com/watch?v=EYRYtTMcYZM>

Compression and Tension

<https://www.youtube.com/watch?v=N_DLcS1BVc4>

Vectors

<http://www.physicsclassroom.com/class/vectors>

Math - proportions

<http://teachersinstitute.yale.edu/curriculum/units/2001/5/01.05.06.x.html#h>

Environmental:

<http://journal.frontiersin.org/journal/built-environment/section/bridge-engineering>

# Forces Acting On A Bridge

<http://science.jrank.org/pages/1026/Bridges-Forces-acting-on-bridge.html>

Understanding: Bridges: Teacher’s Guide:

<http://school.discoveryeducation.com/teachersguides/pdf/physicalscience/ds/understanding_bridges.pdf>