

PBS Media Highlights: Science of Structures

Educational science videos for your classroom

ABOUT THIS GUIDE

Check out these videos showing different types of bridges . Explore the concepts of tension and compression.

GRADE 3-5

PHYSICAL SCIENCE

VIDEOS &
INTERACTIVES from
pbslearningmedia.org



BRIDGE BUILDING CLUB

In this video from DragonflyTV, learn how Exploris Middle School's Bridge Building club in Raleigh, NC designs, builds, and then tests balsa wood bridges.

K-12 SCIENCE FRAMEWORK



DESIGN SQUAD: TRUSS BRIDGE

In this video segment adapted from *Design Squad*, students employ the concepts of tension and compression as they build a truss bridge without the aid of power tools.

DISCIPLINARY CORE IDEAS

PS 2: Motion & Stability:
Forces and Interactions



DESIGN SQUAD: SUSPENSION BRIDGE

Design Squad students employ the concepts of tension and compression to build a suspension bridge without the aid of power tools.

MEDIA and the CA COMMON CORE STATE STANDARDS

MEDIA VIEWING TIPS

K-3 Reading Standards for
Informational Text

Key Ideas & Details:

While watching the video ask and answer such questions as who, what, where, when, why and how to check for understanding key details in text.

Integration of Knowledge and Ideas:

After watching two videos, describe the connection between two scientific ideas or concepts.



INVESTIGATING A SUSPENSION BRIDGE

In this video segment adapted from *ZOOM*, the cast builds a suspension bridge from a couple of chairs, some cardboard, and rope.



FIRTH OF FORTH CANTILEVER BRIDGE

This video segment from *Building Big: "Bridges"* demonstrates the basic design of a cantilever bridge by looking at Scotland's Firth of Forth Railway Bridge.