

# **Interactive S.T.E.M. Lesson**

**Build a Bridge** presented by  
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# S.T.E.M.

Science Technology Engineering Math

*Add the element of Prediction/  
Hypothesis/Conclusion to any  
lesson and it adds the S in  
S.T.E.M.*

Hypothesize  
Conclude

**Science**

*Add the application of  
mathematics to any lesson or  
project and it adds the M to  
S.T.E.M*

Apply  
Calculate

**Math**

**Technology**

Use Tools  
Identify Tools

*Add the use of technology  
tools to the project and the  
understanding of the tools  
needed for the project or job  
and it adds the T in S.T.E.M.*

**Engineering**

Design  
Build

*Add the action of designing and  
physically building a structure  
adds the E to S.T.E.M.*

# Lesson Elements

- **Bridges Where We Live**
- **Explore Famous Bridges**
- **What is the Function of a Bridge**
  - Bridge a Gap Over
    - Roadways
    - Water
    - Valleys
- **How do Bridge Types Work**
- **What are the Types of Bridge**
  - Arch
  - Beam
  - Suspension
  - Cable Stay
- **Site Types**
  - Narrow River or Raod
  - Ocean Bay
  - Shipping Channel
  - Deep Gorge
- **Who Builds Bridges**
  - Engineers
  - Designers
  - Mathematicians
  - Scientists
  - Computer Specialists
  - Information Technologists
  - Construction Workers
- **Tools to Build Bridges**
  - Geometry-Algebra
  - Design
  - Physics
  - Construction
- **Materials to Build Bridges**
  - Steel
  - Concrete
  - Iron
  - Asphalt
- **Bridges Hands On**
  - Analyze
  - Calculate
  - Design
  - Craft

