

Name:

## **Bridges / Structural Stresses Worksheet**

\* Bridges and Forces slideshows in S drive, Team Folders, Industrial Technology, Construction

### **Bridges**

1. List the three main types of bridges.
  - a.
  - b.
  - c.
2. The piers at each end of a beam bridge may also be called an \_\_\_\_\_.
3. Modern beam bridges are good for (circle one) **short or long** spans.
4. What is the advantage of a truss beam bridge compared to a solid beam bridge?
5. The Romans are credited for this type of shape \_\_\_\_\_.
6. A \_\_\_\_\_ bridge is capable of crossing the greatest span.
7. Suspension bridges have \_\_\_\_\_ added to strengthen and support roadways.
8. **True / False** Most long bridges utilize one type of design or style.

### **Structural Stresses**

1. List and define the basic forces that act on bridges.
  - a.
  - b.
  - c.
  - d.
2. \_\_\_\_\_ causes materials to bend.
3. The \_\_\_\_\_ of a bridge will have compression stress.
4. Wind may cause this \_\_\_\_\_ stress.
5. **True / False** Both tension and compression may act on a bridge at the same time.
6. **True / False** Cables in a suspension bridge often have compression forces acting on them