

## **Forces Acting on Structures Science Review**

Use your Science notebook to help you answer the following questions.

1. Define the following terms:
  - a. Force
  - b. Complex Machine
  - c. Static Load
  - d. Dynamic Load
  - e. Gravity
  - f. Tension
  - g. Torsion
  - h. Shear
  - i. Simple Machine
2. What are the 3 things that determine the effect of a force?
3. What is the difference between an external force and an internal force?  
List examples of each.
4. When is a structure ready to be used in real life?
5. What are the 6 simple machines? List examples of each.
6. What are the 4 key methods to ensure that a structure can withstand external forces acting on it?
7. How can a natural phenomena affect a structure. Give a real life example of what a structure has been damaged by a natural disaster.
8. How do you calculate the mechanical advantage of a simple machine?