**Race to the Top! Post-Activity Quiz**

**1.** **Why is it important for engineers to use models? (2 points)**

**2.** **List two shapes that are used by engineers to build towers. (2 points)**

A. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3.** **Why are plans and sketches important in the engineering design process? (3 points)**

**4.** **What design worked best to reach the tallest height? Include the shapes used when stacking the Kapla blocks. (3 points)**

**5.** **List three factors engineers consider when building tall structures. (3 points)**

A.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Circle the correct answer: (1 point each)**

**6.** **What is a member?**

a. A window or door in a structure

b. A bolt or screw in a structure

c. A beam or column of a structure

**7.** **What does weight-bearing mean?**

a. A structure that is able to support itself without assistance from other structures or supports.

b. A structure that is able to support additional weight besides the weight of its members.

c. A structure that is able to support bears.

**8.** **A structure that is able to support itself without assistance from other structures or supports is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

a. weight-bearing

b. free-standing

c. free weight