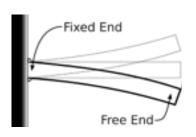
# DEFYING GRAVITY Core Values Activity

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# Materials:

20 toothpicks 10 pieces of spaghetti 3 straws Tape 3 cm cube of clay





### Setup

Provide an empty table with plenty of empty space around it.

# Instructions to the team:

A cantilever is a long projecting beam fixed at only one end, used primarily in bridge construction. You will have 5 minutes to build a cantilevered structure that projects away from the table as far as possible. Use the clay to attach the structure to the table. The clay is the only thing that may touch the table; nothing may touch the floor. After 5 minutes, we will measure the distance the structure is cantilevered out from the table (not the curve of the structure).

# **Variations:**

Provide additional materials - such as 4 chopsticks, 10 coffee stirrers, 5 pipe cleaners, or more toothpicks and spaghetti. Would the team start over, or just try to add on to the existing structure?

# **Discussion:**

Ask the team to determine if the length of the structure is limited because the materials are limited, or for another reason. If they had an endless supply of spaghetti, how long would the structure reach? What if they had an endless supply of clay?