

## STEM ACTIVITIES – COLLEGE OF TECHNOLOGY

### MATERIALS FOR BUILDING A SPAGHETTI TOWER AND PENNY BOAT CHALLENGE

- Marshmallows
- Twine or Rubber Band (*not included*)
- 1 Box of Spaghetti Noodles
- Paper
- Pen or pencil
- Tape
- Measuring Tape
- Aluminum Foil
- Pennies (*not included*)
- Bucket or tub (*not included*)
- Water (*not included*)
- Scissors

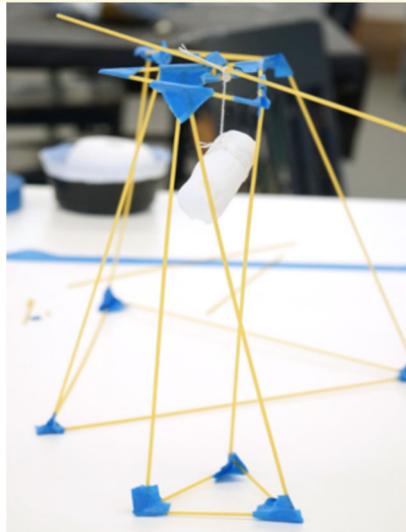
### ACTIVITY 1: SPAGHETTI TOWER

#### The Challenge

By only using the handful of supplies given, the goal is to build the tallest possible tower that can SUPPORT a marshmallow.

#### Materials

- 1 Box of Spaghetti Noodles
- Tape
- Twine or Rubber Band
- Marshmallows
- Measuring Tape



#### Suggestions

Have your kid design their tower by drawing and pre-planning it on a piece of paper.

They have to construct a tower as high as possible using only spaghetti, twine, rubber band, and tape. The marshmallow must be supported from the top of the tower. Be sure to use a measuring tape to see how tall the tower is.

### ACTIVITY 2: PENNY BOAT

#### The Challenge

For centuries, humans have relied on boats to carry precious cargo. For this challenge, let your kid design their very own boat to see how much treasure it can hold using the items provided.

#### Materials

- Roll of Aluminum Foil
- Pennies for Weights
- Bucket or tub of Water



#### Suggestions

Have them think of ways to shape their boat to help distribute the weight when it's added and minimize the chance of their boat from sinking.

Have the kids design their own boat on paper before they get started.

Once their foil boat is finished, place in water and test it out by simply putting 1 penny at a time inside the boat. Be sure to count how many pennies you are putting in to see how many the boat can hold before it sinks.