

WHAT ARE WE INVESTIGATING?

How can you build the tallest tower using only index cards and tape?

MATERIALS:

- Index cards
- Tape
- Strive Academy's Engineering Design Process Handout (found at www.striveacademy.org)
- Pencil or Pen

EXTENSION:

- * Can you build a new structure to hold something at the top like a stuffed animal? Or a can of food?
- * Can you try to build the same structure out of a different material like playing cards or paper?

DIRECTIONS:

1. Gather all your materials. Our materials are just suggestions - feel free to add other things too!
2. On your handout (found at www.striveacademy.org), fill in the title of your experiment (Tallest Tower).
3. On your handout, fill in your hypothesis. You want to answer the question: How tall can I build a tower using just index cards and tape?
4. On your handout, draw a design of what your tower will look like.
5. Using only the index cards and tape, try to build the tallest tower you possibly can. You can fold the index cards, use them flat, or most likely use a combination!
6. Under “Data Collection/Observation”, draw what your final tower looks like. How does it compare to your design?
7. Once you are finished building, measure how tall your tower is and record this under “Results”.
8. Answer the “analysis” questions on your handout:
 - Did it work better to leave the index cards flat or fold them? Or use a combination of both? Why do you think that is?
 - How did you fold your cards (triangle, square, rolled them, etc.)? How did the way you folded them affect how high your tower was built? How did it affect how sturdy your tower is?
 - Was it important to have a sturdy base? Why?

**** Try the extension activities on the first page for more fun! ****