

Hold My Pot of Gold

WHAT ARE WE INVESTIGATING?

Can you build a structure to hold your pot of gold off the ground? And how many coins can your pot of gold hold?

MATERIALS:

- Cardboard/Cardstock/Construction Paper/Computer Paper
- Toilet Paper Rolls
- Paper Towel Rolls
- Popsicle Sticks
- Paper Plates
- Pipe Cleaners
- Straws
- Legos
- Cotton Balls
- Tape
- Scissors
- Coins
- A cup that will be your pot of gold (paper cup, plastic cup)
- Strive Academy's Engineering Design Process Handout (found at www.striveacademy.org)
- Pencil or Pen

EXTENSION:

How can you improve your design so your pot of gold can hold more coins?
Redesign your structure and try again!

Can you build a different type of structure to hold your pot of gold? Maybe a bridge or a tower?

Add some constraints to your structure - can you make it 6 inches off the ground and at least 5 inches wide?

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DIRECTIONS:

1. Choose the materials that you want to use to build your structure. 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 (Hold My Pot of Gold).
3. On your handout fill in your hypothesis. You want to answer the questions: How many coins will my pot of gold hold?
4. On your handout, draw a picture of how you will build your structure. Remember that your structure needs to hold your pot of gold off of the ground! It may be helpful to label the different parts of your structure with what materials you are going to use.
5. Build your structure. Use any materials that you need. Your pot of gold will sit at the top of your structure.
6. Draw a picture of what your structure actually looks like on your handout under "data collection/observations".
7. Begin to add coins to your pot of gold, one at a time. Each time you add a coin, put a tally mark under "results" on your handout. Continue until your cup falls off of your structure.
8. Put your cup back on your structure, and try again! See if your results are the same or different? Try a third time if you want!
9. Answer the "analysis" questions on your handout:
 - Was your hypothesis correct?
 - Did your cup hold more or less coins than you thought it would?
 - Do you think your results would be different if you used different coins? For example, pennies instead of quarters?
 - How could you redo your experiment and make it more scientific?

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