

Skyscraper Hands-on Activity

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Task:

Using only the materials provided, teams of students will design and build a structure as tall as possible using the materials supplied (same materials for each group). The activity can be framed as a competition (for tallest structure, as measured vertically from the tabletop)) if appropriate.



Materials Needed:

- Table or desk top for each group
- 25 sticks of spaghetti per group
- 1 large marshmallow per group
- 1 yard of masking taper per group



Instructions:

1. Divide students into groups of 3 or 4.
2. Explain the rules:
 - >Build as tall a structure as you can in time allotted (15 minutes is good, but could be any amount) with marshmallow on top
 - >Use only the materials provided
 - >The materials can be subdivided (the marshmallow on top can be a piece of the original marshmallow)
3. Call time and measure the structures
4. Relate this activity of the challenge of having to build up during a period of urbanization such as the industrial revolution
 - >Have the students consider how they were constrained by both the types of raw materials and the amounts of raw materials available.
 - >Have the students consider how they were constrained by time
 - >Was there more than one possible solution, given the same materials? Were some better than others? Why? What were some possible trade-offs in choosing a solution?