Skyscraper Hands-on Activity

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?

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