EPS: Self-Supporting Bridge Construction: (form 4-6 teams. Sign your name/section # on a sign-sheet, one sheet one team.)

Introduction:

The construction of buildings, bridges and many modern structures relies on innovative designs that support many times their own weight or incredible span over water. This project is an easy activity that will be done during the class.

Design Goals:

You must construct a bridge from the material given. No other materials or substitutions are allowed, e.g., glue, nail, paper clips, rubber band, etc. The minimum span of the bridge is 23 inches and the longer, the better.

Material provided:

8 pieces of 12-inch-long woods and 4 pieces of wood sticks.

Rules:

- Each team has 20-minutes to think, to discuss, to construct and to finish the project. Any modifications made after the allotted 20-minute period will disqualify the team.
- Bridge must be freestanding; it must not be attached to or lean against any other surface (e.g. floor, wall, desk, etc…)
- Span is the minimum distance between the bridge supports. Span will be measured from the floor.

- Contestants must notify the judge when construction of bridge is completed. Then their bridge will be judged and measured.

Hint: Da Vinci bridge.