

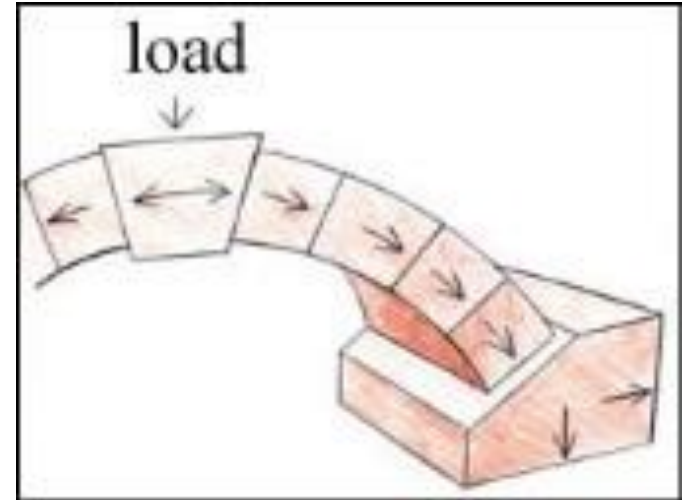
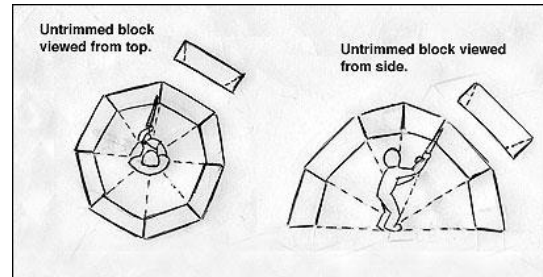
Arch Bridge Design Competition

Matty, Alex, Zach, Aren

Brainstorming

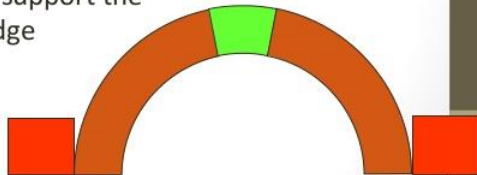
Materials:

- wood
- aluminum
- marshmallows (no!)



Arch Bridges

- **Keystone** – the wedge-shaped stone of an arch that locks its parts together
- **Abutments** – the structures that support the ends of the bridge



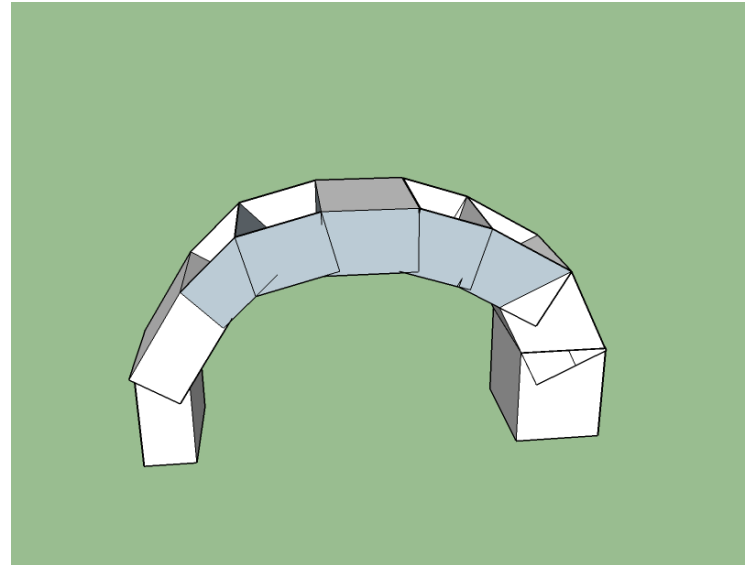
Design Suggestions:

- Velcro
- pegs (similar to Legos)
- magnets

All suggestions were rejected because although they were not adhesives, these ideas make the bridge interlocking instead of relying on the tension from the keystone.

Design

- We will be using wood because it is cheap and easy to manipulate.
- Predicted score: 2
- SketchUp model:
- 35 degrees



Final Design

Final measured score: 1.9



Lessons Learned

- I would have encouraged my team to use their time more wisely, as we could have worked out the bugs with our final design if we built it sooner.