

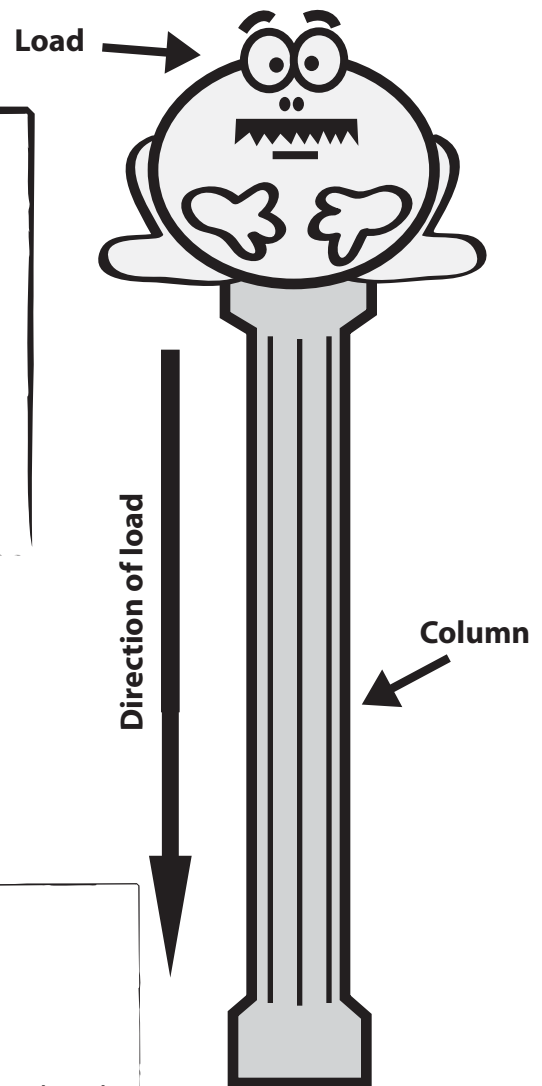
Name: _____

Load Bearing Columns

Columns were used as far back as ancient Egypt during 2600BC, and they are still used today. Some columns are used just for decoration, while others are used to hold up buildings and homes. These are known load bearing columns, meaning they can support weight that is applied from top to bottom.

Column design and engineering

- Columns are built vertically (up and down).
- Columns are symmetrical.
- Different structures have different numbers of columns.
- The taller a column, the more likely it will fall over due to wind or other side forces.
- Columns can be skinny or wide and can be different shapes such as round or square.



Challenge

1. Engineer a chair or table with 4 columns.
The columns are also known as legs on a chair.

Rules:

- Chair must be at least 4 inches tall.
- Chair must be able to support the test weight and not fall over or break.

2. Engineer a chair or table with columns at least 6 inches tall that can support weight on top.
3. Engineer a chair or table with columns at least 10 inches tall that can support weight on top.