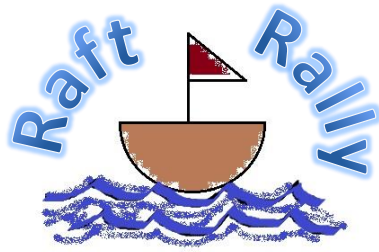


Time: 30 mins

Level: Form I-IV



### How it Works

Students must build a raft using only aluminum foil that can support the heaviest load before sinking.

### What You Need (per team)

- ☐ Aluminum foil - 20cm x 20cm sheet

### RULES

- 10-minute time limit for construction.
- Replacement sheet may be given in case of rips/tears, at a 20 pt deduction.

### Points

- 1<sup>st</sup> Place - 100 pts
- 2<sup>nd</sup> Place - 75 pts
- 3<sup>rd</sup> Place - 50 pts
- 4<sup>th</sup> Place - 25 pts
- Others - 0 pts

### Extra Materials

Large container or bucket (clear if possible) filled with water  
Nails (x200) / Bottle caps (x200) / Other small weights for testing

### Notes:

- ★ As raft approaches the point of sinking, add weights more slowly.
- ★ Raft is finished when water begins to enter, and total number of weights is recorded.

### Take It Further

- Tie into lesson or additional demonstrations on Archimedes' Principle / Law of Flotation.
- Ask students how they would revise their designs if they could do it again.
- Try variations, giving students straws, toothpicks, tongue depressors or index cards.