

Balloon Race – Physical Science Lab

Team Name: _____

Team #: _____

Competitor's Names: 1. _____

Station #: _____

2. _____

- | | | |
|----|--|------------------------|
| 1. | a) Determine the mass of the supplied weight (5 points) | _____g |
| | b) Attach balloon to weight and record balance measurement (5 points) | _____g |
| | c) Determine the lifting force of the balloon (5 points) | _____g |
| 2. | a) Determine the length of the material supplied (5 points) | _____cm |
| | b) Determine the width of the material supplied (5 points) | _____cm |
| | c) Determine the area of the material supplied (length x width) (5 Points) | _____cm ² |
| | d) Determine the mass of the material (5 Points) | _____g |
| | e) Determine the area density of the material (step 2d/step 2c) (5 points) | _____g/cm ² |

Run # 1

3. Determine the mass you want for a slow ascent (5 points): _____g

(note: event supervisor will mass the weight students create and award points based on how accurate they were when creating the weight)

4. Determine the area of the material required to achieve this mass: (step 3/step 2e) (5 Points) _____cm²

5. Hand the mass and the balloon to the Event Supervisor (**DO NOT ATTACH THE MASS TO THE BALLOON**)

6. Measurement & Calculations Points _____
 ÷ Highest Measurement Score X 50= _____

7. Run Time _____ ÷ Longest Run Time X 50 = _____

8. Total points for Run #1 _____

Final Score _____

Run #2

3. Determine the mass you want for a slow ascent (5 points): _____g

(note: event supervisor will mass the weight students create and award points based on how accurate they were when creating the weight)

4. Determine the area of the material required to achieve this mass: (step 3/step 2e) (5 Points) _____cm²

5. Hand the mass and the balloon to the Event Supervisor (**DO NOT ATTACH THE MASS TO THE BALLOON**)

6. Measurement & Calculations Points _____
 ÷ Highest Measurement Score X 50= _____

7. Run Time _____ ÷ Longest Run Time X 50 = _____

8. Total points for Run #2 _____

Rank _____