**Engineering a Mountain Rescue Litter Activity –   
Litter Design Worksheet**

**Directions**

**Part 1**

In the space below, draw your rescue litter design, including labels. Think about your design using the supplies that are available to you to meet the constraints you want to fulfill (materials list shown in Part 2).

When finished, show your design to your teacher/instructor for review and approval.

**Part 2:** Build your design!

**Part 3**

Next, using the materials list in the table below, figure the total cost to build your litter.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Material** | **Unit size** | **Cost per unit** | **Quantity purchased** | **Total Cost** |
| Toothpick | 1 | $1.00 |  |  |
| Paper towel | 1 | $2.00 |  |  |
| Straw | 2 | $1.00 |  |  |
| Sponge piece | 1 | $1.00 |  |  |
| Piece of paper | 1 | $1.00 |  |  |
| Aluminum foil square | 1 | $3.00 |  |  |
| **Optional: Add your own materials below with their costs** |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**TOTAL DESIGN COST (maximum of $20.00):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 4**

Evaluate each person in your breakout room’s litters, including your own by filling in the table below. You can also evaluate other people’s litters when we come back from breakout rooms.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Mass of Litter**  **(circle answer)** | **Cost of Litter** | **Time to Rescue** | **Stability (circle answer)** |
|  | **heavy medium light** |  |  | **stable kind of stable unstable** |
|  | **heavy medium light** |  |  | **stable kind of stable unstable** |
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