***Recycled Towers Worksheet***

***Recyclable materials available:***

1 cardboard base 12 sheets of newspaper

4 aluminum cans 4 plastic bottles

6 yogurt cups 5 feet of masking tape

5 feet of string

***Design:***

Draw a picture of the tower you want to build. Label all the materials in the design. Fill in the table below to show how much of each material you will need.

Materials Quantity

|  |  |
| --- | --- |
| Cardboard base | 1 |
| Aluminum cans |  |
| Yogurt cups |  |
| String |  (how many feet?) |
| Newspaper |  |
| Plastic bottles |  |
| Tape |  (how many feet?) |

***Testing:***

For each trial, record whether or not your tower survived and how long it lasted. If you tower survived the whole trial, record 30 seconds.

|  |  |  |
| --- | --- | --- |
| Trial # | Wind Test | Earthquake Test |
| Survived? (Y/N) | Time (s) | Survived? (Y/N) | Time (s) |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |

***Sharing Results***

Draw a picture of your final design below and explain why you think this tower design was able to survive the wind test and the earthquake test. If you made changes to earlier designs, explain why and how that affected your new tower.