Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How To Bag It**

Many purchases are bagged in plastic or paper bags. People who are environmentally aware question whether so many bags are needed. They remind us of such facts as the following: A fifteen-year-old tree makes only 700 grocery bags. Plastic bags, typically discarded, take up little landfill space but don't biodegrade. Some people, like those in other countries, take their own plastic or cloth bags to carry their purchases. Others "just say no" to bags for small purchases telling the store clerk they don't need a bag.

1. What are some pros and cons of using different kinds of bags? Discuss this question with a group. Make notes in the chart below.

|  |  |  |
| --- | --- | --- |
| **Type of Bag** | **Pros** | **Cons** |
| **Plastic** |  |  |
| **Paper** |  |  |
| **Reusable** |  |  |
| **Other** |  |  |

2. After your discussion, poll your classmates to see which kind of bag they think is best to use. Record the results in the chart below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Bag** | **Tally Marks** | **Total Number** | **Total fractional part** |
| **Plastic** |  |  |  |
| **Paper** |  |  |  |
| **Reusable** |  |  |  |
| **Other** |  |  |  |

3. Choose a type of graph to display your data. Graph your data on a separate piece of paper.

4. Why did you choose the type of graph you made?

5. Interpret your graph. Write several things your graph shows.

6. On the basis of your discussion create an ad campaign to convince others of your bag choice. Your ad campaign may include a jingle, a radio commercial, a television commercial, or a poster. Be sure to justify your selection using evidence from your readings, discussion, and your engineering challenge.

http://illuminations.nctm.org/uploadedFiles/Content/Lessons/Resources/3-5/MathEnvironment-AS-HowToBagIt.pdf