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

Plastic Packaging

**In school, you have participated in activities where facts were gathered about common products we use and ordinarily throw away. This activity will let you, as well as your family, look at plastic products and decide on some ways to prevent wasting plastics.**

1. Gather 12 plastic containers or pieces of packaging material. Look for symbols like the ones we investigated in class to indicate that it can be recycled.

2. Examine the plastic items. Identify the recycling marking. The number on the item should be from 1 to 7. Items marked with 1's are the easiest plastics to recycle; those marked with 7's are the hardest to recycle.

3. Record the quantity of each number marking in the chart below.

|  |  |  |
| --- | --- | --- |
| **Number marking** | **Number of Plastic Containers** | **Fractional Part** |
| **1** |  |  |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |
| **5** |  |  |
| **6** |  |  |
| **7** |  |  |

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

4. Talk and write about what you notice as you examined the plastic items marked with recycling numbers. If you found more than one item with the same number, were similarities and differences obvious? Can you tell by looking which items would have higher or lower numbers? Write some ideas.

5. With your group combine your data. Create a table to show the number of containers of each type.

|  |  |  |
| --- | --- | --- |
| **Number marking** | **Number of Plastic Containers** | **Fractional Part** |
| **1** |  |  |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |
| **5** |  |  |
| **6** |  |  |
| **7** |  |  |

6. Talk about your table with your classmates. What are some things it shows?

7. As a class combine your group data. Create a table to show the number of containers for each type.

|  |  |  |
| --- | --- | --- |
| **Number marking** | **Number of Plastic Containers** | **Fractional Part** |
| **1** |  |  |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |
| **5** |  |  |
| **6** |  |  |
| **7** |  |  |

8. Compare the three tables. What are the similarities and differences?

9. How do the fractional parts change when you combine the data?

10. For each table, (individual, group, and class) combine the two most popular plastics. What fractional part do they represent? Write an equation and represent your solution with a number line or bar model.

Individual table:

Group table:

Class table: