Classifying Matter

Nuts bolts and washers

**Purpose:** To identify and classify the differences between elements, compounds and mixtures

**Observations:**

|  |  |
| --- | --- |
| Sample | Observations: What does the sample look like |
| A |  |
| B |  |
| C |  |
| D |  |
| E |  |
| F |  |
| G |  |
| H |  |
| I |  |

Data table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | Element | Compound | Mixture | |
|  |  |  | Homogeneous | Heterogeneous |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| E |  |  |  |  |
| F |  |  |  |  |
| G |  |  |  |  |
| H |  |  |  |  |
| I |  |  |  |  |

Questions:

1. Based on your observations what do you think the difference between and element and a compound and a mixture?
2. Based on your observations which sample (element, compound, mixture) would be classified as pure matter or impure matter?
3. How can you recognize an element, a compound or a mixture?
4. How would you contrast an element, compound and mixture?
5. How is an element related to a compound? How is an element related to a mixture?