Classification of Matter

Answer the questions below and then make a concept map by using the terms and connecting phrases in the table to fill in the open “containers” on the opposite page.

You can only use a phrase or term once. Use pencil or erasable ink.

Then list examples of each type of matter in the lines beneath each term using the list of examples. The first term is **matter** and belongs in the top container.

|  |  |  |
| --- | --- | --- |
| Terms | Connecting Phrases | Examples |
| * atom * compound * element * homogeneous mixture * heterogeneous mixture * matter * mixture * molecule * pure substance   TERMS  go in this type of box | * substances with identifying set of characteristics * substances combined without reacting * substances formed by combining other substances * substances that cannot be broken down any further * mixtures which are uniform (the same throughout) * mixtures that are not uniform * the smallest particle of an element * the smallest particle of many com- pounds   Connecting Phrases  go in this type of box | * air * aluminum * calcium carbonate * candy bar * carbon dioxide * chocolate chip cookie dough * copper * copper (II) sulfate * cotton * dirt (from a garden) * drinking water * Gatorade * hydrogen * oxygen * paint * salad * silver * sodium chloride (salt) * sugar * sulfur * tinted glass * trail mix (or granola) * water |

**Questions** (answer the questions in the space below).

What is the **similarities** and **differences** between:

1. a compound and a homogeneous mixture (*this is answered for you as an example):*

are similar because they are made of more than one substance and look uniform

are different because a compound has chemically combined elements (always the same pro- portions) and a homogeneous mixture is physically combined substances (elements or compounds) evenly mixed

1. an atom and an element:
2. a molecule and an atom:

**Legend**

**Connecting Phrases**

1. a pure substance and an element:

**Classification of Matter**

examples:

examples:

examples:

examples:

**TERMS**