MC900391186[1]MC900361712[1]Name \_\_\_\_Answer Key\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class # \_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Nuts and Bolts of Elements, Compounds and Mixtures**

Elements and compounds can be combined in many different ways. There may just be one kind of element or there may be a mixture of elements. There may be only one kind of compound or there may be a mixture of compounds. You may also find mixtures of elements and compounds together or mixtures of different compounds together or mixtures of different elements together.

Look at the following boxes and analyze what is inside box. Use the terms:

**Elements** (same) **Compounds** (same) **Mixture of Elements** (different) **Mixture of Compounds** (different) **Mixture of Elements and Compounds**

O2 O2 O2

O2  O2  O2

NaCl NaCl

NaCl NaCl

O2  H2 O2

H2  O2  H2

A.\_\_\_\_\_\_\_Elements\_\_\_\_\_\_\_ B. \_\_\_\_\_\_\_\_Compounds\_\_\_\_\_\_\_ C \_\_\_\_\_Mixture of Elements\_\_\_

H2O H2O2

H2O2 H2O

O2 NaCl H2

H2O O2 H2O

D.\_\_\_Mixture of Compounds\_\_\_\_\_\_\_\_\_ E. \_\_Mixture of Elements and Compounds\_\_

Sometimes representations are used in place of actual element symbols or compounds.

Using the same thought processes as above, identify these substances.

F\_\_\_Mixture of Elements\_\_\_\_\_\_\_ G\_\_\_\_\_Elements\_\_\_\_\_\_\_\_\_\_\_ H\_\_\_\_Compounds\_\_\_\_\_\_\_

I\_\_\_\_Elements\_\_\_\_\_\_\_ J\_\_\_\_\_Mixture of Elements\_\_\_\_\_\_ K\_Mixture of Elements/Compounds

L. \_Mixture of Compounds\_\_\_\_\_\_

Now you are going to look at a variety of substances that have been represented by nuts, bolts, washers, and other items. Identify each as…

Write an “E” in front of an element. Write a “C” in front of a compound.

**-Element  
-Compound  
-Mixture of elements  
-Mixture of compounds  
-Mixture of compounds and elements**

|  |  |
| --- | --- |
| **Station** | **Classification** |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **5** |  |
| **6** |  |
| **7** |  |
| **8** |  |
| **9** |  |
| **10** |  |
| **11** |  |
| **12** |  |
| **13** |  |
| **14** |  |

**\_\_E\_\_\_ H**

**\_\_C\_\_\_CaCO3**

**\_\_\_C\_\_ CO2**

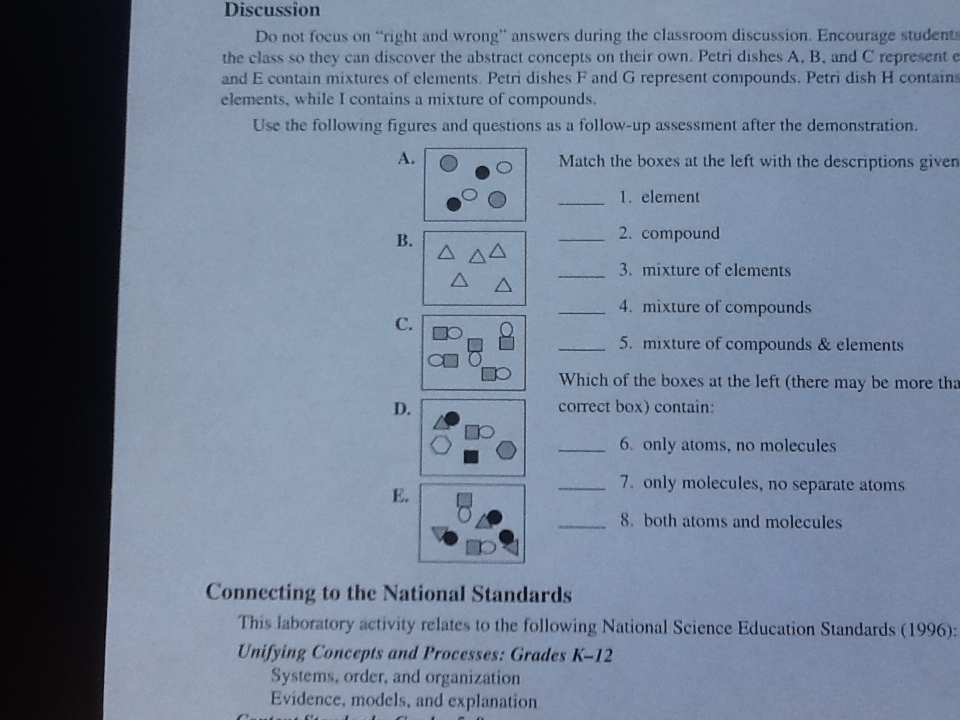
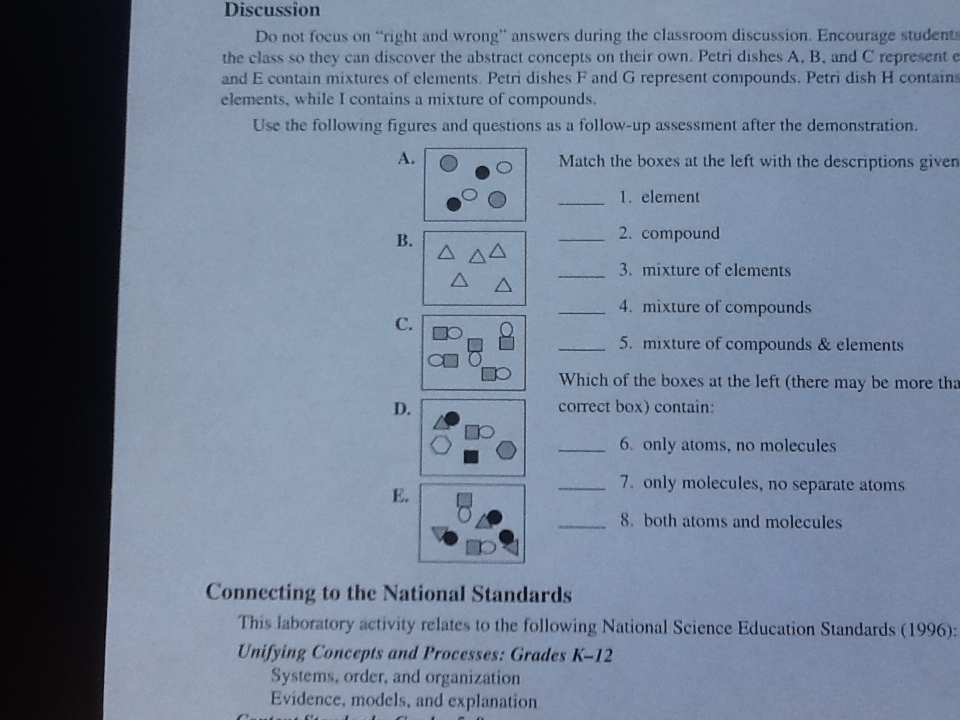
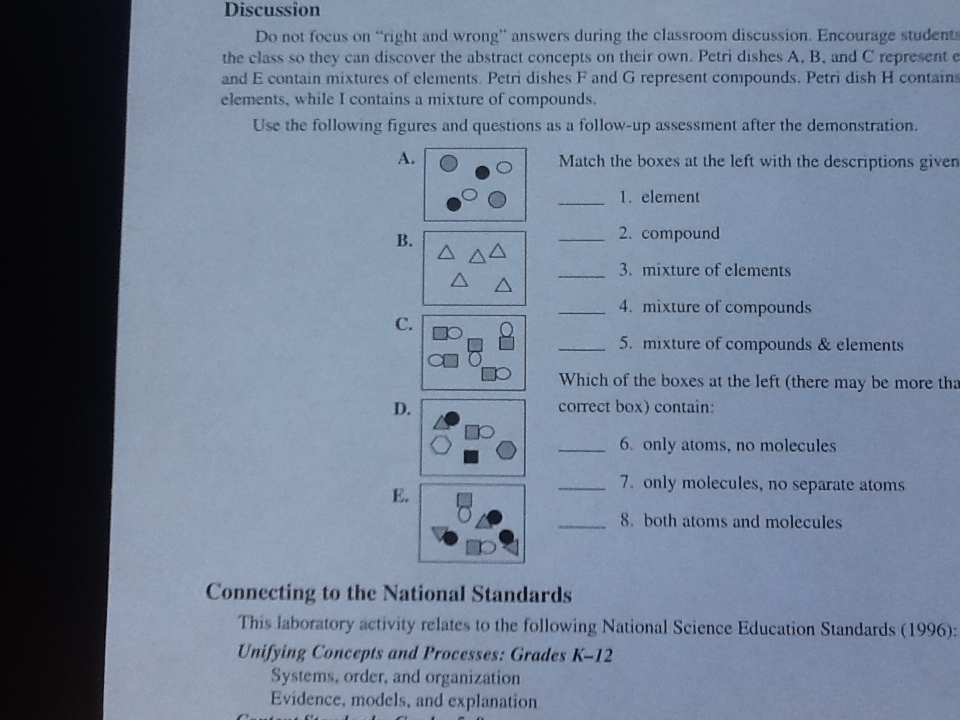
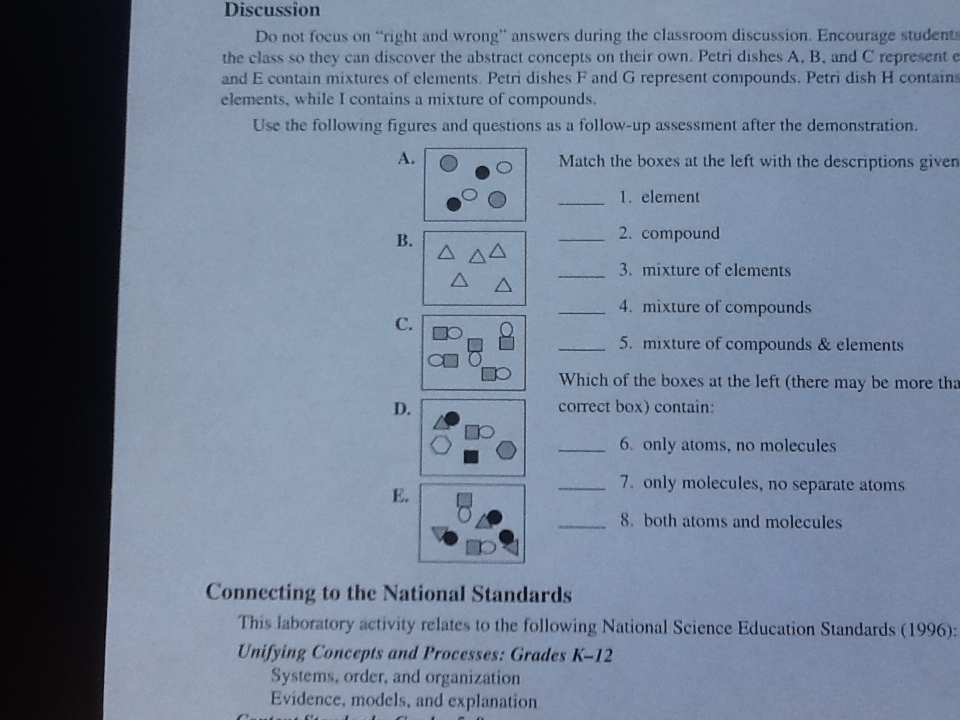
**\_\_\_E\_\_O**

**\_\_\_E\_\_ Co**

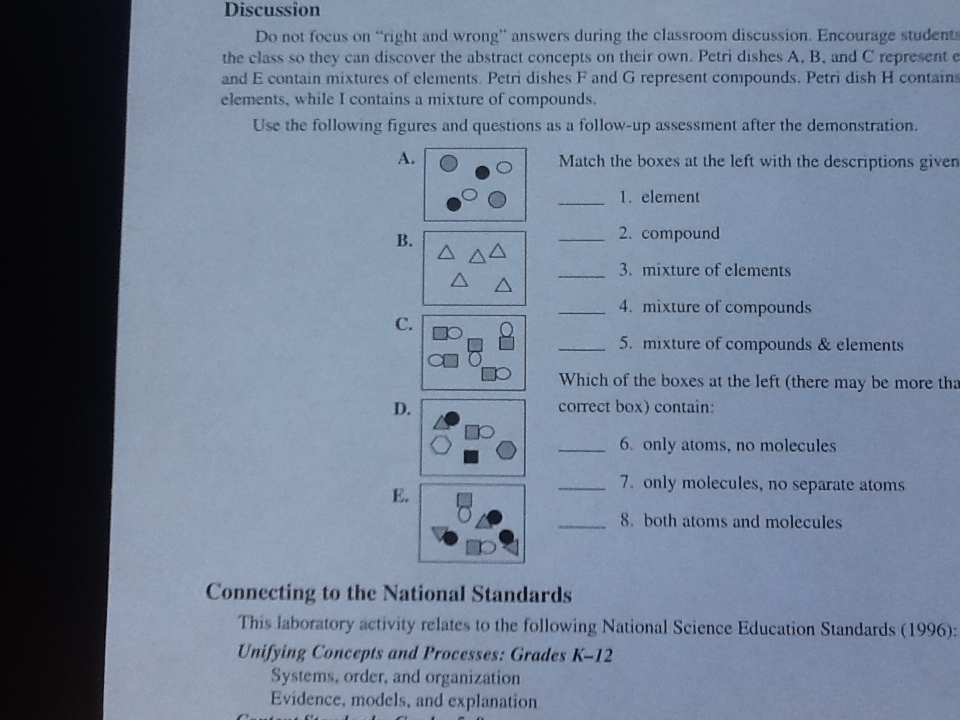
**\_\_C\_\_\_ CO**

**\_\_E\_\_\_ Ca**

**\_\_C\_\_ SiO2**

**By yourself** – Identify the following diagrams with the same terms as above.

Elements



Compounds

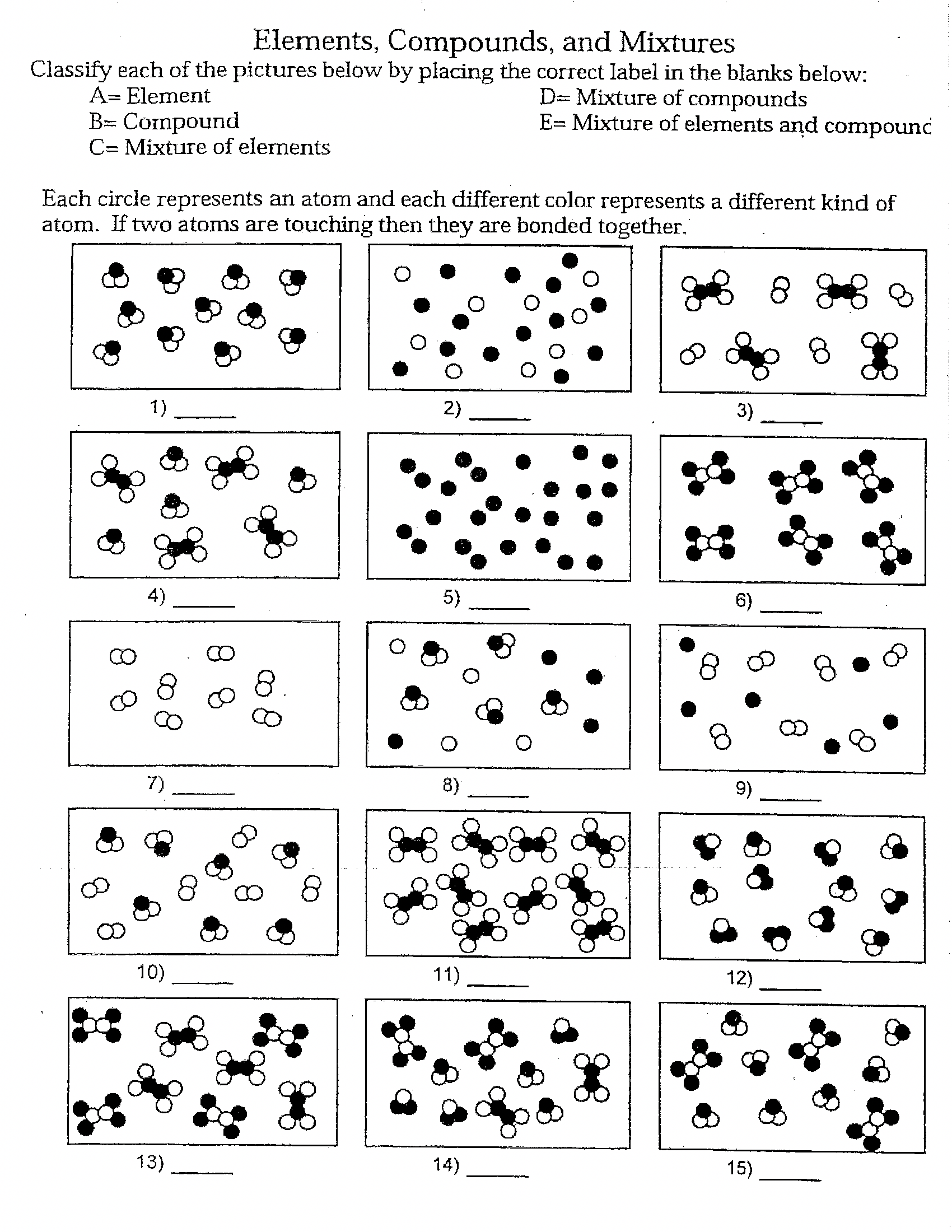
\_Mixture of Compounds

Mixture of Elements

Elements

Mixture of Elements and Compounds

F.



E = Mixture of Elements and Compounds

E = Mixture of Elements and Compounds

E = Mixture of Elements and Compounds

D =Mixture of Compounds

D =Mixture of Compounds

D =Mixture of Compounds

D =Mixture of Compounds

D =Mixture of Compounds

C = Mixture of Elements

C = Mixture of Elements

B = Compounds

B = Compounds

B = Compounds

1. Elements
2. Elements