Build a Molecule Student Guide Name: \_\_\_\_\_\_\_\_\_\_\_

**Start:**  1.

Google: PhET Build a molecule

2. Click on the first link

3. Click on the  button

4.  Explore the simulation. Be sure to click on everything.

Discuss how you and your partner will build the molecules using the 3 **kits** of atoms.

5.  Build all of the molecules in the collection.

6. Choose one of the molecules from your collection and draw it in the box.

Name of molecule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-it is made up of \_\_\_\_\_\_\_ atom(s) and \_\_\_\_\_\_atom(s)

7.

Ask the teacher to check your work before going on!!

Talk with your partner about the following:

A **coefficient** is a large number in front of the molecular formula.

2 H2O -It means there is more than one molecule and multiples of atoms

In this case: **2 water molecules** with **4-hydrogen atoms** and **2-oxygen atom**s.

8. Click on the  tab at the top of the screen.

* Choose collection 1 or 2 and build the entire “collection” with your partner.
* Be on the lookout for the C:\Documents and Settings\jacqueline.esler\Local Settings\Temporary Internet Files\Content.IE5\63DWLZVN\MC900423171[1].wmf, it means you have the collection completed.

1.  Discuss which atoms you would need to build **2CO2** molecules in collection 1.
2.  What is the **name of the molecule** when 2- oxygen atoms bond with

1- carbon atom? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. If you have 2CO2 molecules, how many **different types of atoms** are there? \_\_\_\_\_\_\_\_\_\_
2. Fill in the chart to help you organize the type of atom(s) and the number present in the 2 molecules of CO2.

|  |  |
| --- | --- |
| **Name of atom** in molecule | Number of atoms present |
|  |  |
|  |  |
|  |  |

10. In ****section, Find the kit you will need to build a **SiH4** molecule**.**

** What is the name of this molecule? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**--------------------------------------------------------------You are Finished!**Still want more??

Build a few molecules in the .

Use the kits and put atoms together to build actual molecules.

The name of the molecule will appear when you have built a

Name of molecule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

known molecule. In the box to your left, draw a molecule that

you built and write its name. (You can draw more on back if you want to!)

Write one thing you noticed about building molecules?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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