

Studying Molecules using the [Build a Molecule](#) simulation

Build a Molecule Student Guide

Name: _____


- Start:**
1.
 2. Click on the first link
 3. Click on the **Run Now!** button

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

Your Molecules

Collection 1


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

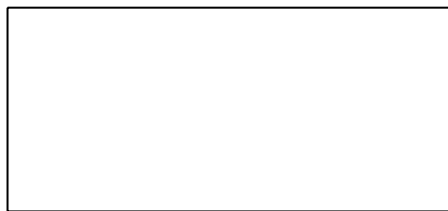
- ✓ Build all the molecules in Collection 1.
- ✓ Be on the lookout for the , it means you have the collection completed.

8. Answer the following questions for **2CO₂**.

- a.  What is the **name of the molecule** when 2- oxygen atoms bond with 1- carbon atom? _____
- b. **2CO₂** molecules, how **many molecules** are present? _____
- c. If you have **2CO₂** molecules, how many **different types of atoms** are present? _____

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d. Draw a picture of 2CO_2 .



Fill in the chart to organize the type of atom(s) and the number present in 2CO_2 .

Name of atom in molecule	Number of atoms present

9.

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

2 H_2O -It means there is more than one molecule and multiples of atoms

In this case: _____ water molecules with _____ hydrogen atoms and _____ oxygen atoms.

Larger Molecules

10. In _____ section, Use Kit #4 to build a SiH_4 molecule.



What is the name of this molecule? _____



-----You are Finished!



Extension!!!



Larger Molecules

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 known molecule. In the box to your left, draw a molecule that you built and write its name. (You can draw more below if you want to!)

Name of molecule: _____

Write one observation you noticed about building molecules?
