



Getting to Know You


Getting Started—logging in and finding your personal folders

1. Find the ChemSense icon, and double click...this opens up ChemSense.
2. Log onto ChemSense with the login name and password that is assigned to you.
3. You will see our class pop up along with your username. This is your personal folder where you will find everything you do throughout the rest of the year.

Getting Your Workspace Together

1. Go to the **File** menu and choose "**New Item.**" You will find several different types of items to create. We will always be creating animations, so choose the "**Animation,**" tool.
2. You will see a workspace pop up. 3 few tricks to maximize your workspace:
 - a. Click on the **green** circle on the top left of your workspace, which should maximize your workspace to fill the screen.
 - b. Next, move the mouse the area left of your workspace and to the right of our class list. You will see the cursor change from an arrow to a double-headed arrow.  Click and drag to the left so that your workspace is widened.
 - c. Lastly, find the "Add Frame" button slightly below the center of your screen. About 2 centimeters below that there is a tiny line, about 2 millimeters long. (See how important metrics is?! ☺) Move your cursor to that line so that the cursor once again changes from an arrow to a double headed arrow.  Click and drag to the bottom of the screen so that your workspace is lengthened.

Here We Go, Michelangelos!

1. The first thing you need is an atom or two. Notice all the drawing tools available to you in the top left corner.
2. Find the **H** button and click on it. You will see a periodic table appear.
3. Find hydrogen, and click on it. You will see your screen revert back to your workspace, ready to place hydrogen wherever you desire. Do so.
4. Move the cursor and click again. Draw in 4 more hydrogen atoms by clicking four more times. At this point, you should have 6 hydrogen atoms total on your screen.
5. Go back to the **H** button and select oxygen. Add 3 oxygen atoms to your picture.
6. Now it's time to bond them and make 3 water molecules (H_2O). Bond a hydrogen atom to an oxygen atom by selecting the button with a diagonal line. 
7. Click on an oxygen and drag to a hydrogen atom. Notice, you have just made a bond.
8. Click again on the same oxygen, and drag to a different hydrogen atom. You have just made one water molecule.

A Very Important Shortcut

At this point, your should have one water molecule and have 2 oxygen atoms, and 4 hydrogen atoms, all separate on your screen. Throughout the year, you will be dealing with many

molecules. Rather than having to construct each molecule the over and over again, we can copy your molecule. Let's find out how:

1. Click on the button that has an arrowhead and a plus sign. This allows you to select things on your screen.
2. Select an oxygen atom and delete it. Select your other oxygen atoms and the four nonbonded hydrogen atoms, and delete them all so that all you have on your screen is one water molecule.
3. Now select the oxygen that is bonded, and move it. Notice how the bonds are locked.
4. Arrange your water molecule so that all atoms are at the vertices of an equilateral triangle.
5. Now using your selection tool, select all three atoms by clicking and dragging.
6. Select the "**Arrange**" button and select "**Group**." Notice your molecule is now treated as a unit. From here it is easy to duplicate many molecules.
7. Go to the "**Edit**" menu, and you can either copy/paste your molecule over and over again, or simply duplicate over and over again. Do whatever you choose, but draw in 5 more water molecules, so that you have 6 water molecules total on your screen.
8. Notice you can resize your molecules or rotate them by moving the small yellow dot around.

Remember this duplicating function as it will save you a LOT of time in the future.

Adding text to Your Work

Although a picture is worth a thousand words, sometimes a few words of explanation can help to clarify your ideas. Let's see how this works.

1. Choose the button with a **T** on it. Notice that a text box pops up. Write a few short relevant words, and hit "**OK**."
2. Now you need to say where you want it to go. You can do this by clicking anywhere on your workspace.

Time to Animate!

Since the beauty of this program is for us to visualize matter at the molecular level, and since molecules are always moving, we need to show movement. What you are essentially doing is making a filmstrip. I think from here it is pretty intuitive, so let me just get you started.

1. Click on "**Add Frame**." Everything from your first frame has been copied onto a second frame, where you can edit and move molecules around. Move a molecule or two.
2. Press the "Play" button and see the beginning of masterful chemistry movie. 😊

Use the rest of the time to play around a bit and get to know the program. Notice you can change the frame speed, change the font of your text, the color of your text, etc.

At the end of the period, save your work by first giving it a **Title**, and then saving.