

## Build a Molecule Activity

Name:

Class:

1. Using the LDMS homework 3 & 4, draw in the LDMS for each of the molecules.
2. Go to [phet.colorado.edu/en/simulations/build-a-molecule](http://phet.colorado.edu/en/simulations/build-a-molecule) click on the play symbol to open the activity.
3. Click on “Playground”
4. Use the “buckets” of atoms to build the the molecules in the chart. Click the arrows to access different atom combinations. Drag and drop the atoms into the space above the buckets to “build” molecules based on their LDMS.
5. Once the molecule is correctly built, its common name will appear. Write its common name.
6. Click “3D” to see its shape. Draw its shape.

Molecule	LDMS	Drawing of 3D molecule	Common name
<b>CH<sub>4</sub></b> Domain: Molecular: Angle:			
<b>NH<sub>3</sub></b> Domain: Molecular: Angle:			
<b>HF</b> Domain: Molecular: Angle:			
<b>Br<sub>2</sub></b> Domain: Molecular: Angle:			

Molecule	LDMS	Drawing of 3D molecule	Common name
<p style="text-align: center;"><b>CH<sub>3</sub>OH</b></p> <p>Domain:</p> <p>Molecular:</p> <p>Angle:</p>			
<p style="text-align: center;"><b>O<sub>2</sub></b></p> <p>Domain:</p> <p>Molecular:</p> <p>Angle:</p>			
<p style="text-align: center;"><b>N<sub>2</sub></b></p> <p>Domain:</p> <p>Molecular:</p> <p>Angle:</p>			
<p style="text-align: center;"><b>CH<sub>3</sub>COOH</b></p> <p>Domain:</p> <p>Molecular:</p> <p>Angle:</p>			
<p style="text-align: center;"><b>HCN</b></p> <p>Domain:</p> <p>Molecular:</p> <p>Angle:</p>			
<p style="text-align: center;"><b>HClO</b></p> <p>Domain:</p> <p>Molecular:</p> <p>Angle:</p>			

Molecule	LDMS	Drawing of 3D molecule	Common name
$C_2H_2$ Domain: Molecular: Angle:			
$CH_2Cl_2$ Domain: Molecular: Angle:			
$C_2Cl_2$ Domain: Molecular: Angle:			
$CH_2O$ Domain: Molecular: Angle:			
$CH_3CH_2Br$ Domain: Molecular: Angle:			
$CH_2CHBr$ Domain: Molecular: Angle:			

Molecule	LDMS	Drawing of 3D molecule	Common name
$\text{CH}_3\text{CHCH}_2$ Domain: Molecular: Angle:			
$\text{CH}_3\text{CONH}_2$ Domain: Molecular: Angle:			
$\text{C}_2\text{H}_4\text{Br}_2$ Domain: Molecular: Angle:			
$\text{CH}_2\text{CCH}_2$ Domain: Molecular: Angle:			