Chemistry Lab 3 proc

Use Styrofoam balls to represent atoms and toothpicks to represent their bonds, keeping in mind that the electrons of the atoms will repel each other. This means the terminal atoms (non central atoms with only one bond) must be arranged in a way that the electrostatic repulsion is at a minimum.

For each geometry, estimate the bond angle and draw the shape.

Type	Notes
AX_2	No lone pairs, fairly predictable. Maximize angles between toothpicks
AX_3	
AX_4	
AX_5	
AX_6	
AX_2	Create these from the originals by removing Styrofoam balls
AX_3E	
AX_2E_2	
AX_4E	Vaguely diamond shaped if you draw a line between terminal atoms. Inherit from AX_5 The two atoms at the tips of the diamond are "axial" and are never lone pairs. Lone pairs go in the body of the diamond; the "equatorial" positions.
AX_3E_2	
AX_2E_3	
AX_5E	Shaped like a 3D axis. Inherit from AX_6 Single lone pairs go in the bottom, two lone pairs go in +y and -y (axial) directions.
AX_4E_2	
AX_3E_3	
AX_2E_4	

Drawing Molecular geometries

- When you need to extend into three dimensions, use a filled in wedge to represent going out of the page, and dashes to represent going into the page.

After completing the Lewis Dot Structures worksheet, use the molecule geometries you drew to create molecule geometries for each of the compounds found in the worksheet.

cleanup

DON'T THROW ANYTHING AWAY