

Name _____

Period _____

Partner _____

Date _____

Model Building

Pre-Lab Questions:

1. Identify which color ball is used in your model set to represent each of the following elements:

Carbon	_____	Oxygen	_____	Boron	_____
Hydrogen	_____	Chlorine	_____	Phosphorus	_____
Nitrogen	_____	Iodine	_____	Sulfur	_____

Build the following molecules using the molecular models. Show them to the instructor for approval and a rubber stamp on the numbered line. Once you have the correct model, draw a Lewis Dot diagram of each structure and identify its molecular geometry.

1) I₂ Iodine

1) _____

Geometry _____

2) CH₄ methane

2) _____

Geometry _____

3) NH₃ Ammonia

3) _____

Geometry _____

4) H₂O Water

4) _____

Geometry _____

5) BCl₃ Boron trichloride

5) _____

Geometry _____

6) PCl₅ Phosphorus pentachloride

6) _____

Geometry _____

7) SF₄ Sulfur tetrafluoride

7) _____

Geometry _____

8) ClF₃ Chlorine trifluoride

8) _____

Geometry _____

9) XeF₂ Xenon difluoride

9) _____

Geometry _____

10) SF₆ Sulfur hexafluoride

10) _____

Geometry _____

11) ClF₅ Chlorine pentachloride

11) _____

Geometry _____

12) XeF₄ Xenon tetrafluoride

12) _____

Geometry _____

13) O₂ Oxygen gas

13) _____

Geometry _____

14) N₂ Nitrogen gas

14) _____

Geometry _____

15) CO₂ Carbon dioxide

15) _____

Geometry _____