

Name _____ Date _____

Worksheet 7.1: Shapes of molecules molecular models practical

1 Using molecular model kits, build the three following molecules: methane (CH_4), boron trifluoride (BF_3) and carbon dioxide (CO_2).

2 Draw the Lewis structures of these molecules.

3 Draw the shapes of these molecules.

4 Work out the bond angles and name the shapes of these molecules.

5 Use molecular model kits to build the three following molecules: propane (C_3H_8), ammonia (NH_3), water (H_2O).

6 Draw the Lewis structures for these molecules.

7 Draw the shapes of these molecules.

8 Work out the bond angles and name the shapes of these molecules.

9 What difference do lone pairs of electrons make on the bond angle in a molecule?

10 Using the molecular model kit, build carbon monoxide.

11 Draw the Lewis structure for carbon monoxide.

12 Describe what type of bond is formed in carbon monoxide.
