

CHAPTER 2	Investigation 2.B: Soap Bubble Molecules Answer Key	BLM 2.1.10A
ANSWER KEY		

Answers to Analysis Questions

1. The shape associated with two same-sized bubbles is linear, and the bond angle is 180° . Examples of molecules with this shape are CO_2 and BeCl_2 . The shape associated with three same-sized bubbles is trigonal planar, and the bond angle is 120° . An example of a molecule with this shape is BCl_3 . The shape associated with four same-sized bubbles is tetrahedral, and the bond angle is 109.5° . An example of a molecule with this shape is CCl_4 .
2. In Step 6, there are two small bubbles and one slightly larger bubble. An example is SnCl_2 . In Step 7, there are two same-sized bubbles and two slightly larger bubbles. An example of this shape is NH_3 .

Answer to Conclusion Question

3. A soap bubble has both polar portions (carboxyl groups) and non-polar portions (hydrocarbon portions). The non-polar ends are attracted to each other, tending to reduce the size of the bubble. The polar ends of a soap bubble stick point outward, away from the inside of the bubble, and act in a similar way to electrons in an atom.