

## Guided Reading Chapter 21 Section 1

1. Your body is made up of about \_\_\_\_\_ percent water.
  - a) 40 - 50
  - b) 60 - 75
  - c) 85 - 100
2. A water molecule has the shape of a \_\_\_\_\_ because electrons (with the same charges) repel each other, and this is the arrangement that allows them to be apart from each other.
  - a) "C"
  - b) "B"
  - c) "V"
3. Polar molecules, such as water ( $H_2O$ ) and \_\_\_\_\_ have negative and positive poles.
4. An example of a nonpolar molecule is \_\_\_\_\_.
  - a) water
  - b) methane
  - c) ammonia
5. Copy the table to show melting and boiling points of molecules.
6. The hydrogen and oxygen atoms in a water molecule form a \_\_\_\_\_ bond, however, bonds between water molecules are called "hydrogen bonds."
7. Frozen water is arranged in an orderly honeycomb shape that has \_\_\_\_\_ sides.
  - a) 6
  - b) 5
  - c) 3
8. Why does water have such a high specific heat?
9. What is meant by the phrase "water is the universal solvent?"
10. Describe the process called "dissociation."
11. What type of bonds is broken in dissociation?
12. Why do sugar molecules stay intact when dissolved by water?