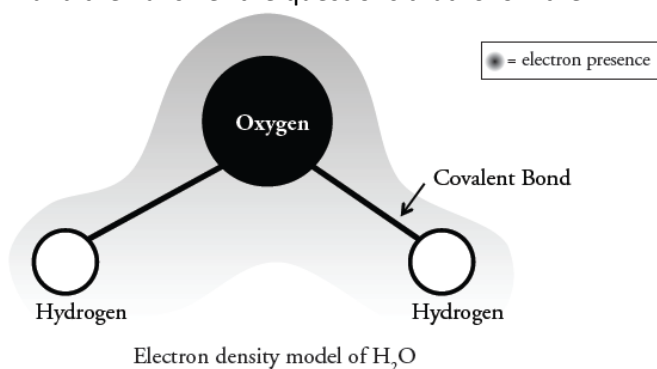
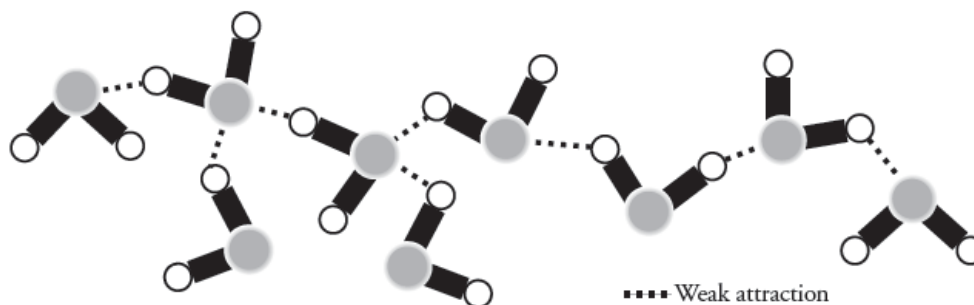


# Properties of Water Review

Directions: Study the figures below and then answer the questions that follow them.



1. How many hydrogen atoms are there in water? \_\_\_\_\_
2. How many oxygen atoms are there in water? \_\_\_\_\_
3. What holds the hydrogen atoms to the oxygen atoms? \_\_\_\_\_
4. The shading around the molecule represents the relative density of electrons shared by the atoms. Where are electrons more dense? Around the oxygen atom or the hydrogen atom?
5. Where is the majority of the negative charge on the water molecule? Around the oxygen atoms or the hydrogen atoms?



6. The figure above shows multiple water molecules interacting with one another. Based on what you should already know about water, what bond or atom is represented by....
  - a. The shaded circles \_\_\_\_\_
  - b. The unshaded circles \_\_\_\_\_
  - c. The black, rectangular boxes \_\_\_\_\_
  - d. The dots between water molecules \_\_\_\_\_
  - e. What part of one water molecule is attracted to another water molecule?

7. Provide an example that relates to living things for each property of water.

A.

B.

C.

D.

8. Indicate whether the description or substance is hydrophilic or hydrophobic:

a. Oil \_\_\_\_\_

b. Cotton \_\_\_\_\_

c. hydrocarbons \_\_\_\_\_

d. "Water-fearing" \_\_\_\_\_

e. fats \_\_\_\_\_

f. "Water-loving" \_\_\_\_\_

g. cell membranes \_\_\_\_\_

h. Will dissolve in water \_\_\_\_\_

i. Will not dissolve in water \_\_\_\_\_

j. ionic \_\_\_\_\_

k. polar \_\_\_\_\_

l. nonpolar \_\_\_\_\_