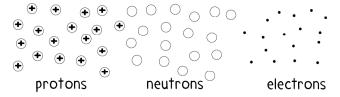
## Conceptual Biology

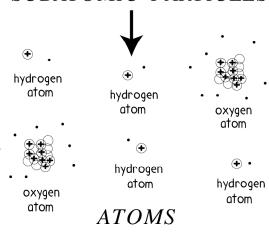
#### **Chapter 2: The Chemistry of Life**

Atoms to Molecules to Molecular Attractions

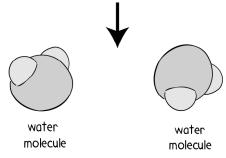


Subatomic particles are the fundamental building blocks of all \_\_\_\_\_\_.

### SUBATOMIC PARTICLES



An atom is a group of \_\_\_\_\_ held tightly together. An oxygen atom is a group of 8 \_\_\_\_\_, 8 \_\_\_\_, and 8 \_\_\_\_. A hydrogen atom is a group of only 1 \_\_\_\_ and 1 \_\_\_.



A \_\_\_\_\_\_ is a group of atoms held tightly together. A water \_\_\_\_\_ consists of 2 \_\_\_\_\_ atoms and 1 \_\_\_\_\_ atom.

## **MOLECULES**



WATER

Water is a material made up of billions upon billions of water \_\_\_\_\_. Water's physical properties are based upon how these water \_\_\_\_\_ interact with one another.



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# **Chapter 2: The Chemistry of Life** *Solutions*

1. Use these terms to complete the following sentences. Some terms may be used more than once.



solution	solvent	solute
dissolve	concentrated	dilute
saturated	concentration	mole
molarity	solubility	soluble
insoluble	precipitate	supersaturated

Sugar is	in water, for the two can be mixed homogeneously to form a			
Т	he	of sugar in wate	is so great that	
ho	-		_	
added to water, which b	ehaves as the	, the	solution becomes	
A	t this point any addi	itional sugar is	for it v	will not
If	the temperature of	a saturated sugar solu	ition is lowered, the	
of	the sugar in water	is also lowered. If som	e of the sugar come	s out
of solution, it is said to for	orm a	If, however, t	he sugar remains in	solution
despite the decrease in	solubility, then the s	solution is said to be $\_$		
Adding only a small amo	ount of sugar to wat	er results in a	solutio	n.
The	_ of this solution or	any solution can be n	neasured in terms of	
, w	hich tells us the nu	mber of solute molecu	es per liter of solution	n. If
there are $6.022 \times 10^{23}  \text{m}$	olecules in 1 liter of	f solution, then the	O <sup>†</sup>	f the
solution is 1	per liter.			

