

WS 10.2 Chemical Bonding in Alkanes

1. Hydrogen has how many outer-shell electrons? _____ Draw its electron dot formula: _____
2. Carbon has how many outer-shell electrons? _____ Draw its electron dot formula: _____
3. Carbon likes to have 8 outer shell electrons when it forms molecules. How many hydrogens are needed to make 1 carbon happy? _____

Draw the electron-dot formula for 1 carbon atom with the proper number of hydrogens surrounding it to give carbon a total of 8 outer shell electrons:

A covalent bond is formed by two shared electrons. Re-draw the carbon-hydrogen molecule, replacing the dots with bonds:

4. Complete the following **alkane** table: *WRITE SMALL!*

Name	# of carbons	chemical formula	structural formula	condensed formula
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			