

## SPRING BENCHMARK #1 Review Problems – CHUNK #1

DO THE WORK ON NOTEBOOK PAPER PAGE \_\_\_\_\_

Q#	Question
1	What are the main types of IMFs
2	Look through your notebook and give two examples of compounds that only have London Forces, two that have dipole-dipole, and two that have hydrogen bonding
3	What are the two main “real life biology” examples of hydrogen bonding that you learned about
4	Identify the main/dominant/strongest type of IMF present in each of the following: $\text{H}_2\text{O}$ , $\text{SiF}_4$ , $\text{CH}_3\text{NH}_2$ , $\text{CH}_3\text{OH}$ , $\text{H}_2\text{S}$ , $\text{O}_2$ , $\text{CH}_3\text{COCH}_3$
5	What are three types of inter molecular forces and two types of intra molecular forces
6	What is polarity?
7	What are three ways you can draw the polarity of a molecule (hint...it was in your notes!)
8	Label the following as either polar or non polar: $\text{H}_2\text{O}$ , $\text{H}_2\text{S}$ , $\text{CO}_2$ , $\text{SiO}_2$ , $\text{CH}_4$ , $\text{CH}_3\text{OH}$ , $\text{C}_2\text{H}_6$
9	Why is it important to know that water is bent? Make sure your answer talks about polar vs non polar
10	Rank the following from highest to lowest surface tension: $\text{CH}_4$ , $\text{CH}_3\text{OCH}_3$ , $\text{CH}_3\text{OH}$
11	Which should have a higher boiling point? Why? $\text{CH}_3\text{OCH}_3$ or $\text{CH}_3\text{CH}_2\text{OH}$
12	In one paragraph explain the point of the lab you did on IMFs. Describe the results you found and how that relates to IMFs. Think of it like a conclusion for a miniature lab report.
13	What are three examples of bulk solids that have unique properties due to the combination and interaction of inter and intra molecular forces?
14	What could you predict about the boiling point or melting point of a network covalent molecule?
15	What are two examples of network covalent molecules? (We talked about two during lecture). Which do you expect to have a higher melting point?
16	What is the definition of physical change?
17	What is the definition of chemical change?
18	What is the definition of physical property?
19	What is the definition of chemical property?
20	List 5 examples of physical changes
21	List all the types of phase changes
22	What are some signs that a chemical change has taken place?
23	MEMORIZE YOUR COMMON IONS!