Let's Match Phases!

1. The atomic bonds between _____molecules are very weak.	A. Amorphous solids
2. The bonds are broken by the normal microscopic vibrations of atoms at room temperature.	B. Gases
3. Atomic vibrations are the result of thermal energy of the material.	C. Gases
4. _____have no molecular organization.	D. Liquids
5. They will take on the three-dimensional shape of their container.	E. Solids
6. Remove the thermal energy (by cooling), gases condense into liquids.	F. Liquids
7. They have stronger attraction between molecules than gases but not enough to carry a load or maintain a shape without support.	G. Gases
8. The attraction between molecules results in short-range order (consistent spatial relationships among atoms or molecules 5–10 neighbors apart).	H. Liquids
9. Lack long-range order.	I. Gases
10. Molecular forces prevent boiling but not always evaporation.	J. Gases
11. Other characteristics of _____: vapor pressure, boiling temperature, viscosity, and surface tension.	K. Solids
12. They exhibit the strongest attraction between atoms and molecules.	L. Liquids
13. Their atomic bonds maintain the shape of objects and resist external forces placed on them.	M. Solids
14. _____can be classified as crystalline or amorphous.	N. Crystalline solids
15. _____have a consistent spatial relationship of atoms or molecules repeated hundreds to thousands of times (long-range order). The distances and angles between the atoms or molecules are uniform. Short-range order is also displayed by crystalline solids.	O. Gases
16. _____ have the same strong atomic bonds as crystalline solids but only short-range order (like liquids). Strength of these solids is determined by the material and strength of the atomic bonds therein.	P. Liquids