

Key Q's and Vocab: Lab Safety – GHS Pictograms and NFPA diagram

These should be copied by hand into your CHILL ☺

Vocab:

1. Solid [definite shape and volume] – molecules are tightly packed together and there is NO translational motion present
2. Liquid [indefinite shape, definite volume] – molecules are still close together but not quite as much as a solid and they have translational motion
3. Gas [indefinite shape and volume] – molecules are VERY FAR APART and have very high amounts of translational motion
4. Surface tension – surface formed in liquids that is based on the strength of inter-molecular attraction (higher attraction = higher surface tension)
5. Viscosity – a substance's resistance to flow (molecules moving past each other) and affected by inter-molecular attractions (higher attraction = higher viscosity)
6. Compressibility – the ability of a substance's molecules to be pushed closer together
7. Heat 'em up, speed 'em up – saying that relates a molecule's average kinetic energy (motion) to temperature. Heat energy is absorbed/removed to change the kinetic energy which in turn causes a change in temperature

P.S. know your state changes!

Key Questions (answer these in a different color ink):

1. Justify why gases are compressible and solids are not.
2. Iodine crystals sublime at room temperature. Explain what is happening to the molecules at the molecular level (hint: reference motion, temperature, spacing, and heat energy)
3. Liquid water has a higher surface tension than liquid methane. What does this tell us about molecular attraction in each liquid?