For the past few weeks I had been learning about solid, gas and liquid and their changes in state. Although I had already learnt them in primary school, this is actually to add on to the things I will learn since the primary schools only teaches us the basic but did not go deeper into the details. For these few lessons, I learnt things about the arrangement of the particles in the three types of matters and I also learn about the packing of these particles in the matters.

For the packing of particles of Solid I learnt that they are packed tightly in fixed positions, the particles are very close to one another and the particles only move by vibration about their fixed positions. For the packing of particles of Liquid, I learnt that particles are not packed very tightly and can slide over each other; the particles are further apart than in solids and the particles move about freely within the volume of the liquid. Lastly, for the packing of particles for the Gas, I learnt the particles are very loosely arranged, the particles are very far apart and the particles move about very freely (in random motion)

Not only these, I also learnt about the process in which the matters change from state to state. I also learnt that when a solid is heated, energy absorbed causes the particles increase in energy and vibrate and at melting point, the vibrations of the individual particles become so violent that the attractive forces are overcome and the solid melts. I also learnt about the other processes.

These are just some examples of what I learnt during the classes and after the class, I was also interested in this topic and I did some research and experiments about them. On the website and books that I read, I found out that there is also another process called the deposition and this process was not mentioned by my teacher.

From my reading, I found out that this is actually the process in which is a process in which gas transforms into solid (also known as desublimation since it is the reverse of sublimation) directly. The some examples are in sub-freezing air, water vapor changes directly to ice without first becoming a liquid. This process also explained how snow forms in clouds, as well as frost and hoar frost on the ground.

I also found the answers of the questions that my teacher asked us during class but did not give us the answer. One of the question is ‘why does the process evaporation only happens on the surface of liquid?’ I surfed the internet and found out that it is actually due to the characteristic of the molecules in these liquid. The molecules actually liked to move from areas of higher pressure to lower pressure. Hence, the molecules are basically sucked into the surrounding area to even out the pressure. This is what that explains the reasoning of why evaporation only happens on the surface of water.