Year 7 Homework

Autumn Term

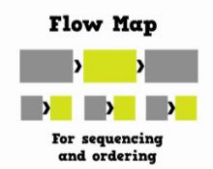
Solids, Liquids and Gases

Task:

Some students were watching an ice cube in a beaker over a Bunsen burner as it slowly melted and then boiled. In this project, you should **research** and then **model** the **process of the ice melting and then boiling** in a way that suits you. You must include a step-by-step description of how the ice melts and boils. You should include particle theory in your answer.

Your research should involve the internet, books, magazines, etc. Use the thinking hats, particularly white, yellow and black hats, to help target your research.

When you have done your research and before you present it its final form, it is important that you plan out how you will do this. This process will be made much easier if you use a flow map to help you.



For example, you may wish to make a model in papier mache, wood, or even cake (speak to your teacher fist). Alternatively, you may wish to make a video of you pretending to be a scientist reporting on ice melting and boiling. You could present your research in a PowerPoint or as a leaflet, or in a poster. You could use another method that you like, the choice is yours.

Levels:

To get level	You might have:
5	Used most of the key words accurately. Included a particle diagram for each state. Explained or shown that substances are made up of particles. Described some differences between particle behaviour of each state.
6	Used all the key words accurately. Included particle arrangements clearly using diagrams. Explained, in detail, the particle behaviour in each state. Shown or described how mass is conserved during changes of state. Explained evaporation using particle theory.
7	Used a detailed scientific knowledge of particle theory. Used energy and forces to explain the differences in behaviour of the particles in each state. Explained the changes of state using particle theory. Included the concept of energy and or forces should be incorporated into explanations.

Key words:

boiling, compressible, conservation of mass, density, energy, evaporating, fixed, forces between particles, freezing, gas, liquid, melting, moving randomly, particles, solid, solidification, states of matter, temperature, vibrating