**Growth of a Tree**

**Lesson 1**

* To begin this topic I think it would be a good idea if possible to go to a part of the school where there are trees growing and talk a little bit to the students about how from a little acorn a mighty oak tree will grow. Then the class could plant a tree themselves.
* Bring students back into the classroom and work in pairs they write down everything about how a tree grows and about how seeds can be dispersed etc...
* Next the teacher hears what the students have been writing down and arranges it on the board in the form of a graphic organiser. The students take down this graphic organiser and realise the links between its different elements.

**Lesson 2**

* Jigsaw method for teaching is employed at the start of this class. Five groups of four are arranged with each group taking one of the five stages and delving into it in depth. Then returning to another group and teaching the group about that topic.
* A table quiz is used as assessment once this activity is finished. The winners of the table quiz have no homework.
* Homework assignment is reading based on the work completed in class that day.

**Lesson 3**

* Students start work in pairs again. They must delve deeper into the process of how a tree gets food. Relating it to how a person creates energy is a good way to create that link.
* Next the teacher hears what the students have been writing down and arranges it on the board in the form of a graphic organiser. The students take down this graphic organiser and realise the links between its different elements.
* Teacher explains how the reaction that takes place in order for plants to create food is one of the most important in the world. Students see what is needed for photosynthesis to happen as they complete an experiment in which you breath on a piece of glass giving you water vapour and carbon dioxide. Ask the students what else is needed? They will say sunlight and by shining a torch on the glass you will be able to identify sunlight as the final element needed for photosynthesis to happen.
* Next activity which explains osmosis, capillary action, evaporation and transpiration. The rope activity. Six students stand the length of the classroom with another four at the back of the classroom. Around each of their waists is a rope which connects to the person behind them. Student 1 is at the top of the tree, student 6 is at ground level, while students 7 to 10 are below ground level. The students each have a glass of water which is filled up a certain amount depending on their position. Students 7 to 10 are beneath the ground and therefore have the most water, while student 1 is at the top of the tree about to evaporate off and has barely any water in his/her glass. Student 1 walks forward and the other students follow him/her. When he/she reaches the top of the class he/she unties the rope signifying that they have evaporated. The rope shows the pulling action shows capillary action and transpiration and osmosis.
* To finish students must draw a diagram of a tree explaining the whole process. However the tree must be an actual tree which matches the shape of one they studied in the previous chapter.

**Lesson 4**

* Jigsaw method of teaching. Students are broken into 4 groups of 5 students. Each group receives two parts of the tree which they must study. Also they groups will have a cross section of a tree in front of them which they can use as a visual aid to help grow their understanding.
* The students return to their groups and teach each other about the two elements they looked at in depth.
* To finish the class the students get mixed up again into groups for a table quiz which will act as an assessment for the topic as a whole.