NOTES Task 6

* This is based on an experiment found in the Human Biology Experiment Book – about setting up experiments to determine the conditions that enzymes work best.
* It goes over 3 lessons: one to plan; one to carry out the experiment; and one to write up the experiment under test conditions
* Below… is an email I sent to Andy, which has some relevant points in it…thought it may be useful.
* I have written the part 1 of the enzyme investigation, and attached it.

If there is anything else you think of, let me know and I can add it tomorrow, or at some later time.

Apart from reading through the Planning page – Instructions with them, I am thinking we should not give them much help – and tell them that… only explain any word they don’t know…which should not be any or many. No explanation of any part of Scientific method – they can use their text books… not devices at this stage…unless they have their text on their device.

You will, or will have noticed once you have read the Planning that I have slightly changed number 3 to include concentration of the enzyme as well as boiling as an alternative (I would probably leave this one – the boiling - out)…I think I will only give the concentration one as the third one…I have no idea if it will work, but they will need to work out how to get various concentrations etc, and I think that will be a challenge.

As you said, we want them to get into team work.

You will have noticed that I have suggested that if they do a poor job on their planning, we will give them a basic outline to follow – from the Experiment book – the one that is in there…and of course they will get no credit for planning.

In terms of marks, we can say that Planning and Experimenting will be worth 10 marks each, and the Report will be worth 30 marks...as a guideline. Total = 50 marks.

Hope it all makes sense.

Cheers

PS.  I just thought we should tell them…they can write it under Notes on the attached sheet…to leave their experiments for about 10 minutes to let a result to develop.

* I have left in a marks recording sheet – we actually double marked this investigation – I marked Andy’s and he marked mine, then we swapped and marked the other class.
* The teacher puts students into groups – I suggest no more than 3 per group -2 is ok
* And…the teacher gives out the feature each group will work on.
* They get one lesson to Plan – as a group - – and then they hand it to the teacher at the end of the lesson. You photocopy their planning and give it back to them next lesson …the experimental part should be at least two lessons after the Planning.
* Teacher needs to run their eye over their planning, and award marks as appropriate…if planning is terrible, give a copy from the HB experiment book –this means they get 0 for planning.
* While students are doing the experimental lesson…watch out for no safety glasses, or glasses not worn correctly…look out for labelling of glassware…what does each piece contain…do they have a results table to record results…are they tidy and careful about how they carry out the experiment.
* Note on the back of the Instruction sheet there is information regarding chemicals etc which are available. They will only be able to get the listed amount of chemicals as indicated …if they run out…no more will be given. They will have to cope with that, and explain in their report. Though if they were enterprising, they could get someone else’s results …let them ask, but don’t suggest.
* This is a little involved, but it actually worked quite well last year.
* The Report writing lesson…again if they are enterprising they could get a head start on their report at home…by having title, Aim etc already completed. Have graph paper in case they want it.
* I have given the copy of the report writing requirements from their text to help them …they should be familiar with it.
* A lot of the marking is subjective…which is why we double marked, but you don’t have to.
* We were looking for a report which was above Lower School Science level…hence the sections which large mark values.
* You may want to give them the Instruction sheet the lesson before the class you have set aside for Planning