

Video clips save Science lessons

Award winning teacher Baldav Singh shares his Science success secrets

Science by its very nature can be a difficult subject to teach and despite the very best efforts of teachers, the current Science GCSE curriculum has been criticised for being uninspiring, out of touch with contemporary Science, overly factual and inflexible. One teacher from a John Cabot City Technology College, Bristol was having a problem with motivating and inspiring his students in Science, so decided to take matters into his own hands.

Although the Government has recognised the need for a Science make over, the new science curriculum doesn't start officially until September 2006. Wanting to encourage my students in Science straight away I couldn't afford to wait until September, so it was vital for me to come up with inspiring motivational lessons that would grab my student's attention quickly and prepare both my students and myself for the changes in the new curriculum.

Historically, Science has based on two dimensional teaching with the additional fun experiments here and there. Students would spend most of their time learning through plotting graphs, drawing apparatus, recording data and carrying out basic experiments. This type of learning although adequate wasn't and isn't fundamentally exciting.

Science is not an easy subject to teach as things like; atoms, molecular formulas, compounds, circuits, osmosis are difficult to explain without the use of three dimensional diagrams or even interactive components. With the provision of ICT being available to schools on a national basis, the inclusion of this component in my Science lessons sparked an idea for visual up to date learning through the use of ICT.

The knowledge bank of science teaching needs to be more than the traditional textbook and as our students demand to interact with multimedia as integral part of the learning and teaching environment; we as teachers will need to meet this demand. Although integrating ICT hardware like; PC's interactive whiteboards and projectors into my Science lessons, I was still not able to make my Science lessons as stimulating and simple to understand. After investigating into

numerous software resources I found Channel 4 Learning's Clipbank resources to be exactly what I was looking for.

Using Clipbank students were able to further enhance skills being developed in their ICT lessons as part of the KS3 ICT strategy (a perfect example of developing cross curricular links). This creative use of digital video editing allowed me to create an atmosphere of differentiated learning where students work at their own pace. It has opened ways for me to integrate ICT into science lessons in a more creative way and allowed me to develop an exploratory and personalised learning framework in my classroom. This interesting video-science-ICT interaction was not only motivating for the students but reinforced learning, improved behaviour in lessons and overall improved learning.

Clip bank which has the entire KS3 science curriculum mapped through digital video provided a simple way to introduce a science concept in an easy and visual manner. It saved a lot of time looking for that elusive video which is always on "loan"! This concept of "Video-On-Demand" allowed me to pull other relevant videos to enrich and extend the understanding of a science concept.

Some of the highlights of using ClipBank in lessons was that it enabled science teaching using a meaningful context through real life examples on video, the video clips were motivational and engaging, excellent use of video clips as starter in lessons allowed to improve the overall quality of the lesson, the clips encouraged the development of extension material which catered for the gifted and talented students as well as students with special educational needs and the finally ClipBank encouraged the creative use of ICT in science.

Clipbank offers students the opportunity to edit part of a video clip, add their own narration based on their own understanding (providing opportunities for assessment for learning), add interesting web links which support the video, tasks which were all engaging and meet the current Science curriculum and the one to be implemented in September.

My science lessons have transformed as a result of using ClipBank, a resource supported by good pedagogy. Clipbank meets the needs of both student and teacher and more importantly it supports the development of good student-teacher interaction, central to the success of teaching and learning.