

# Time flies

**If you have recently attended a residential SSERC CPD course you may well be familiar with the Veho VMS-001 USB digital microscope [1, 2] (Figure 1).**



*Figure 1 - The Veho VMS-001 USB microscope.*

In terms of versatility and value for money, the Veho is difficult to beat - see SSERC Primary Bulletin 61 [3]. We have been putting this useful little magnifier to further use lately - this time experimenting with time lapse photography.

Observation is one of the key skills in Science inquiry, and is described in the Curriculum for Excellence Sciences: principles and practice document [4] "Observing and exploring involves careful observation of how something behaves, looking for changes over time and exploring 'what happens if...?' and 'how could I...?' questions."

Observing changes over time forms an integral part of exploring the world around us and learners will be very familiar with time lapse techniques used in many documentaries and TV programmes. Here at SSERC we have been exploring a simple and easy way to produce very effective time lapse films in the classroom. Using Webcam Timelapse 2.0, a free software package from TNL Soft Solutions [5] we have been able to record various events and phenomena and present them in a time condensed manner, meaning that even the shortest attention span is no impediment to observation over time.

The program requires a digital camera to be attached to the computer and it recognises the Veho as such a device. The finished

videos are made from a series of still images, like a digital flick-book. The advantage of this mechanism is that clips can be created without having to make use of the video function of the MicroCapture software that comes with the magnifier. In the past we have had difficulty extracting video clips of greater than 30 seconds from MicroCapture - due to the large file size - but with Webcam Timelapse 2.0 this is no longer a consideration.

Given that the Veho can be used to view objects and organisms at up to x200 magnification a broad range of filming opportunities exists. Among other projects, we have observed the germination of seeds and growth of plants over the course of several days, we have filmed ice gardens melt over the

course of a few hours and even set up a Veho to film a "Forces Funtime" session at one of our Primary Residential courses in May 2013 - we then marvelled at the speed and intensity of our delegates as they moved around the various activities! All of these events were condensed into snappy videos lasting less than 20 seconds.

Time lapse video has proved to be an engaging way to approach science inquiry from a different angle, and this free software download adds another dimension to the already multi-talented Veho microscope.

A set of instructions for Webcam Timelapse 2.0 is available on request from SSERC [6].

## References

- [1] <http://www.misco.co.uk/> (accessed 25<sup>th</sup> April 2014).
- [2] <http://www.amazon.co.uk> (accessed 25<sup>th</sup> April 2014).
- [3] <http://tinyurl.com/Primary-61> (accessed 25<sup>th</sup> April 2014).
- [4] <http://www.educationscotland.gov.uk/learningteachingandassessment/curriculumareas/sciences/principlesandpractice/index.asp> (accessed 25<sup>th</sup> April 2014).
- [5] <http://www.tnlsoftsolutions.com/timelapsehome.php> (accessed 25<sup>th</sup> April 2014).
- [6] Contact [sts@sserc.org.uk](mailto:sts@sserc.org.uk) for an electronic copy.