

A present for everyone

SSERC has been able to source two substantial pieces of scientific equipment to give out to local authorities on permanent loan.

Item one is a spectrophotometer [1] and datalogger [2]. The spectrophotometer allows teachers to examine the absorption and transmission of light passing through substances. When connected to the datalogger, clear graphs are displayed and data can be analysed using a variety of built-in tools. Whilst this equipment is possibly of greatest use at National 5 and beyond in biology and chemistry, there is scope for forensic-style investigations during Broad General Education. The datalogger is state-of-the-art and users with Wifi-equipped computers, tablets

and smartphones can access data and control its acquisition using a compatible browser. These devices are not, however, essential for its function.

The second item is a thermal imaging camera [3]. This picks up the invisible heat radiation from an object, including a human being. Not so long ago, supplying a device like this would have been inconceivable but there is now a well-made budget infrared camera on the market. Whilst its price is out of the range of most school science departments, we have been able to supply it as a resource for schools to share. The camera supports all stages of the science curriculum from upper primary onwards. Pupils can study heat loss from models or from actual buildings. They can investigate friction heating and

Figure 1 - Spectrophotometer.

energy loss in cars. Thermal imaging cameras are used to find victims who have become trapped after disasters such as earthquakes. This can be modelled using your camera. A memory card is supplied so that pupils can take pictures and transfer them to a computer to view or to include in reports or presentations.

We have contacted your local authority about this. They will decide whether to hold the equipment in a resource centre or a nominated school. Teachers and technicians from independent schools that are SSERC members should contact us directly regarding the borrowing of apparatus. ◀



Figure 2 - Infrared camera.

References

- [1] SSERC Bulletin 228 <http://www.sserc.org.uk/index.php/bulletins226/2009/228-summer-2009/1182-spectrophotometers-for-schools> (older model).
- [2] SSERC Bulletin 243 <http://www.sserc.org.uk/images/Bulletins/243/SSERC%20bulletin%20243%20p12.pdf>.
- [3] SSERC Bulletin 245 http://www.sserc.org.uk/images/Bulletins/245/SSERC%20bulletin%20245_p8-9.pdf.