



Interactive, Smart and Modern Textiles

Pumpkin TV

Suitable for KS3 – KS5

Links to other design areas: Product design, Electronics, Resistant Materials

Cross-curricular links: Science, Maths

www.pumpkintv.co.uk

The growing awareness of how textiles can be integrated with other materials is not only seen in everyday products, but also in the emerging area of Technical and Smart Textiles.

This DVD resource provides the viewer with an inside look at design and product development and also the reasons why products have developed.

The content is divided into seven chapters:

1. Introduction
2. Wearable electronics: Climate dress
3. Wearable electronics: Intelligent clothing
4. Power generation: Solar Textiles

This DVD resource provides the viewer with an inside look at design and product development

5. Power generation: Piezoelectric Textiles
6. Protective Textiles: D30
7. Protective textiles: Kevlar and Nomex

Each chapter is between 4 and 12 mins long, and can be stopped or paused, allowing review and reflection to take place. The shorter clips work well for all students; teachers may wish to section the content for the longer videos.

Many of the components used to make the products shown and discussed are available to purchase online from suppliers. The addition of weblinks in the activities section of the DVD allows teachers to give students the option to do additional independent study.

What's great about the series of videos is that the links can be seen between:

- The use of traditional textiles techniques and their application to modern practices
- Design practices and materials (material areas are interlinked)
- The maker and the user
- Sustainable design and inclusive design
- Study and potential careers in the technical and smart materials areas



The cross curricular aspects are not forgotten, textiles teachers can share ideas with their science colleagues. The DVD also provides opportunities to discuss broader issues of sustainable and inclusive design.

Resources and other information

The DVD is supported by transcripts which provide a step by step commentary, allowing the teacher or students to review areas of the video. The transcripts can be edited to allow teachers the opportunity to create their own resources. The DVD also includes a range of activities and questions that teachers can use to guide student learning, in both standard Word format and also PDF.

Overall, this is a great resource for the classroom, which enhances the knowledge base for the emerging and growing area of interactive, smart textile design.