



## Resources

### Hardware and software

When managing and organising resources for digital video projects, it is essential to consult your network manager or ICT technician to make sure that the hardware and software needed is available in good working order and that you can book it in advance.

- As a basic checklist, find out how many computers have a suitable specification for DV editing, for example a DV interface or FireWire card; how many have Serif MoviePlus installed; and where they are located.
- A FireWire or IEEE 1394 lead is necessary to connect your DV camera to a suitable computer.
- Check whether the DV camera has both DV-Out and DV-In terminals, as line-in recording gives the option of saving finished movies back to tape.
- A tripod and external microphone are also useful when shooting.
- If the computers you need are located in a dedicated ICT suite, you will have to book sufficient time for editing. However, projects can also be organised on a rota basis using a small number of computers installed in a subject teaching room. When only a single computer with the necessary specifications is available the editing process can be undertaken as a whole class activity with a data projector and, ideally but not essentially, an interactive whiteboard.
- Also discuss with your network manager or technician how best to manage and store shared digital video assets – raw footage, audio tracks, sound effects and still images, for example - so that they are readily accessible on the school network during the project. Save ongoing projects in the MoviePlus project folder so that pupils can open their movie at any time to continue editing, but plan to archive finished work as soon as possible onto DVD or CD-ROM to free space on the computer's hard drive, as just one minute of raw footage takes approximately 200 MB of storage.
- Make sure that the DV camcorder batteries are fully charged and that you have an adequate supply of DV tapes - at least one for each group - so that it is easy for groups to switch them over when sharing a camcorder during shooting.

### Useful websites

The screenshot shows the 'Becta ICT Advice for teachers' website. It features a navigation menu with options like 'home', 'teaching & learning', 'advice & policies', 'technology', 'ask an expert', and 'news'. A sidebar on the left lists various technology topics such as 'Computers', 'Data storage', 'Peripherals', 'Imaging', 'Digital still cameras', 'Digital television', 'Digital video', 'Video conferencing', 'Networks', 'Internet', 'Mobile technology', and 'Software'. The main content area is titled 'Imaging' and provides information on digital still and video cameras, digital television, and video conferencing. A search bar is located in the top right corner.

[http://www.ictadvice.org.uk/index.php?section=te&catcode=as\\_img\\_02](http://www.ictadvice.org.uk/index.php?section=te&catcode=as_img_02)

The **Becta ICT Advice** site is a comprehensive source of information for teachers on using digital video in schools. It has case studies, FAQs, filming and editing tips, advice on choosing equipment, ideas for using DV in an educational context, a summary of copyright issues, safety advice, technical tips on storage, file formats and compression.

The screenshot shows the 'Becta Creativity in Digital Media Awards' website. It features a navigation menu with options like 'home', 'schools sector', 'learning and skills sector', 'Government, LEAs and agencies', and 'Industry and education'. A sidebar on the left lists various award categories such as 'About Becta', 'Publications', 'Events', 'Awards', 'ICT in Schools Awards', 'Creativity in Digital Media Awards', 'Digital Video Category', 'Digital Still Images Category', 'Creative Music Category', '2008 Winners', '2009 Winners', 'Mobile Awards', 'BETT Awards', 'Careers', 'Becta's Board', 'Contact Becta', 'Becta Blog', 'Press releases', 'Corporate Projects', and 'ICT facilities'. The main content area is titled 'Creativity in Digital Media Awards 2005' and provides information on the awards scheme for all students aged between 5 and 18 across the UK. A search bar is located in the top right corner.

<http://www.becta.org.uk/creativityawards>

**BECTA Digital Media Awards** are an annual event and now have categories not only for digital video, but also for digital still images and digital music. Visit the site for more information. Movies should be up to two minutes in length and have been created by pupils. There are four age groups, from 5 – 18. The work of previous winners can be viewed on the site.



[www.britishpathe.com](http://www.britishpathe.com)

Described as the “world’s first digital news archive”, **British Pathe** video assets are available free of charge for educational purposes to all schools that are connected to their Regional Broadband Consortia (RBC). The site has a wealth of preview clips from 3500 hours of news archive from 1896 – 1970. To preview a clip, the *Preview Stills* option shows a storyboard of thumbnails, consisting of stills from the footage. As an educational resource, they should not be published online, but can be freely exchanged by email.



<http://www.screenonline.org.uk>

**Screenonline** is an internet archive managed by the British Film Institute, which is described as ‘The definitive guide to Britain’s film and TV history’ from the 1890s to the present. There are video extracts, still images, publicity materials and expert analyses of hundreds of films and programmes, from popular classics, to obscure masterpieces, supported by filmographic information. Student guides and a glossary are available in the Education section. Access to video and audio material is free, but restricted to users in registered UK schools, colleges and libraries. Registration details are available from the site.



<http://www.archive.org/>

**The Internet Archive** is a US based online portal to digital collections of the moving image, web pages and sound. It offers free access to a wide range of digital asset collections for educational and research use. Each film has a storyboard composed of a still for every minute of the film. Downloads are available at different resolutions and in different formats.



<http://www.storycenter.org/>

**The Centre for Digital Storytelling** in Berkeley, California, is dedicated to helping people use digital media “to tell meaningful stories from their lives”. As well as useful information and case studies, there are links to other organisations with similar aims, including the BBC **Capture Wales** site, a fascinating collection of RealMedia movies made by ordinary people at digital storytelling workshops around Wales.

<http://www.bbc.co.uk/wales/capturewales/>



<http://www.tv-ark.org.uk/>

TV ARK is the site of the Television Museum with archive footage from terrestrial, cable and international channels.

Watch and learn the history of TV channel presentation through all the genres: title sequences, adverts, public information films, news broadcasts, children's programmes, cult shows, soaps, sport and more. Clips can be downloaded in Real Player format.

## Making a digital video

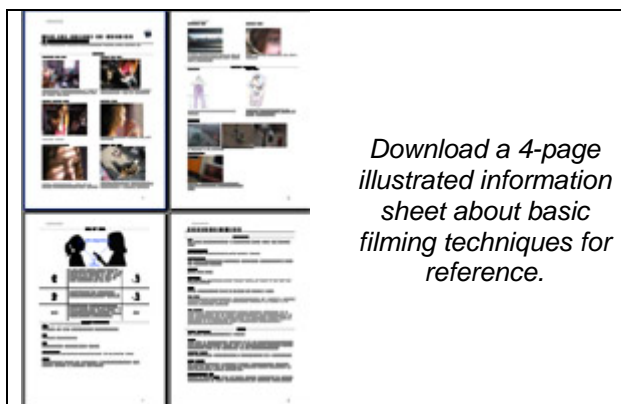
There are **three** main phases with **seven** key steps:

### Pre-production

#### 1. Look at clips

This activity supports pupils in developing visual literacy for the moving image: by analysing clips from movies, commercials, music videos, or archive footage pupils can increase their awareness of filmographic conventions and discover ways in which meaning is produced through these codes, which in turn will help them plan and film more effectively themselves. Most of the recommended websites above have video clips that you could use.

- Show pupils one or two short scenes from clips you have previously downloaded and saved to the network.
- Focus your questions on the filmographic techniques used in the clips to communicate a message, create mood, propel the narrative, portray character, or suggest a particular brand identity, introducing pupils to the appropriate film terminology at the same time.
- Freeze or slow the action at strategic moments to discuss camera angle, type of shot, mood, lighting, soundtrack, action, type of cut and the message that the director is trying to convey through these cinematic codes.
- Ask pupils to suggest who the target audience for the clip might be.
- If you are using an interactive whiteboard, note pupils' comments, annotate clips and print them out for reference.
- Discussing what makes an effective video will help pupils plan more productively and develop criteria to assess their own movies.



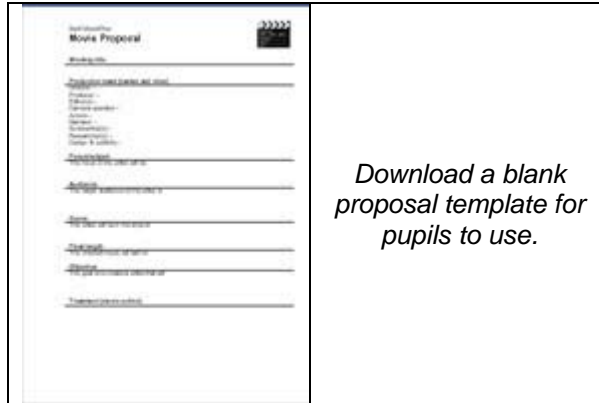
#### 2. Brainstorm ideas

- Select a curriculum focus for your project – see the Curriculum Projects for examples – and give pupils a clear brief.
- Use familiar concept mapping or brainstorming techniques with pupils to begin conceptualising the brief by exploring the 5 Ws: who, where, when, what, why?

- If the students themselves are to appear in the video, obtain written permission from their parents/carers. The NGfL Superhighway Safety site has a parental consent form for the use of pupil images that you could adapt for DV projects: <http://www.safety.ngfl.gov.uk/schools/document.php3?D=d75>  
For good practice guidance on whether the Data Protection Act applies to taking photographs or videos of pupils in schools in this context visit the Information Commissioner website: [www.informationcommissioner.gov.uk](http://www.informationcommissioner.gov.uk)
- Alternatively, set a restricted brief for the project: for example, to “reveal the character’s presence and actions without fully showing the character her/himself”. Setting limitations can generate a more original approach through creative problem solving. Pupils could use imaginative techniques to film individuals so that they are not identifiable – by framing close-up details of feet, hands, mouth, eyes; by filming against a brightly lit background to create dark silhouettes; by shooting back views and long shots; by the use of masks, as in Greek drama; by using props, puppets, voiceover narration, or depopulated subject matter. You could also use a “point of view” format for the movie, in which the action is seen entirely through the eyes of the main character.
- Although MoviePlus has a mosaic effect that can be applied to a masked area of the video, such as a face, to anonymise identity, this pixilation would have sinister connotations that would only be appropriate in a school video if the format were based on a police appeal or similar genre.

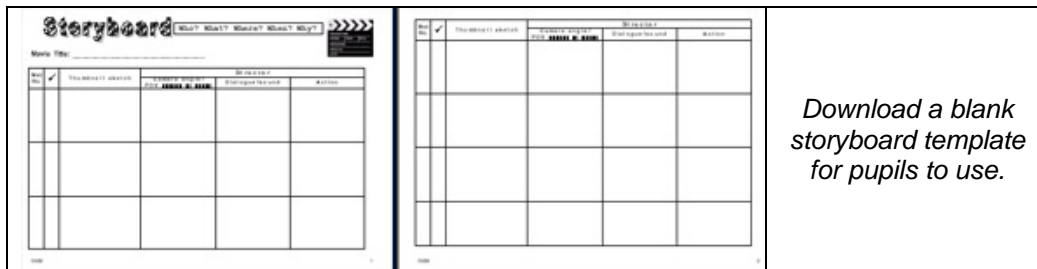
### 3. Groupings, research and scripting

- Group organisation will depend on local factors such as class size, resources and time available, but there are several alternatives:
  - For a whole class project with a single outcome to which individuals make a specific contribution, divide the class into different production teams, each with a clearly defined role and task e.g. director and producer, scriptwriters, researchers, prop/set managers and designers, continuity supervisors, actors, camera operators, sound recorders/engineers, film editors etc.
  - In the case of multiple project outcomes, divide the class into small groups of three or four pupils. Group members can take turns at different jobs, guaranteeing that gender stereotyping of roles does not become an issue, and two groups can collaborate during the shoot, with one filming the other, then changing places.
  - If pupils are organised into larger groups of six pupils, it is important that each member is actively engaged throughout, so they may each need to perform at least two roles e.g. in a group of six with one director, one camera operator, two actors and two editors, the camera operator and the actors could develop publicity materials for promoting their movie during the editing phase - a poster, flyer, press release, invitation to the movie première, and film review – while the editors could act as prompters, production assistants, continuity supervisors, stills photographer or sound recorder during shooting.
- Begin preliminary work on researching the topic and writing a script.
- Research might also include taking digital photos of the intended locations for the shoot. Select locations that have strong visual interest with dominant lines, pattern or colour.
- At this stage ask groups to write a project proposal that clearly defines the focus, goals, audience, roles, genre and length of their movie. This will help the team stay focused throughout the project and will benchmark criteria for evaluating the final outcome. Download a blank proposal form to scaffold their writing and adapt it to suit your particular DV project below.



#### 4. Storyboarding

- Storyboarding is used to illustrate the way in which a director visualises a scene. The storyboard shows what is happening and how each shot will appear, including camera position, lighting, dialogue and sound or sound effects, if any. This is an important reference during the production or shooting of the movie, ensuring that no crucial material is missed.
- Pupils can use simple thumbnail sketches, written notes or even digital photos of the location to explain the narrative or storyline of their piece.
- Use the storyboard to plan the timing of the shoot and also the most logical shooting order of scenes, which may not be chronological.



### Production

#### 5. The shoot

- Use a range of basic film techniques, angles and shots, as suggested in the Basic Filming Techniques information sheet.
- Work slowly and enlist extra adult support if possible.
- Organise someone to act as stills photographer to take photographs of the shoot.
- Use a tripod to avoid the *Blair Witch* syndrome.
- Use an external microphone for better quality audio.
- Avoid too much camera movement and always turn the camera in the same direction when panning, not from side to side.
- Film in good light.
- Avoid zooming while filming: instead record, stop, zoom in and frame the subject, start recording again.
- For scripted dialogue or to-camera 'talking head' shots, improvise an autocue by typing the text large in PowerPoint and holding up printouts of the slides, or, if practicable, playing the presentation through on a computer positioned where the actors can read it.
- Shoot extra footage for 'cutaways': for example, film reaction shots, 'noddy' shots (of the interviewer responding to the interviewee), objects in the room, and people or places that are mentioned (these could be stills).
- Put the lens cap on and record additional ambient sound, in case of gaps in the soundtrack that need to be plugged later.

## Post-production

### 6. Editing

It is easy to underestimate the time needed for editing, but equally easy to over-edit, so set clear deadlines from the start.

- As an introduction to editing, do a simple clip sequencing exercise, using clips you have filmed yourself, downloaded from one of the recommended sites, or sourced from the MoviePlus Samples folder. The activity will familiarise pupils with the MoviePlus environment and highlight the importance of the post-production phase, giving them an insight into how the same raw footage can be edited to produce different narratives or moods, and even to change the message. You may want to give this skills' workshop session at the start of the project before groups storyboard and film their own movies. The lesson plan below outlines such an activity and the MoviePlus tutorials give step by step help with the process.
- Use open-ended questioning to explore alternatives: How could you ...? What if you ...? Why did you ...?
- Use an interactive whiteboard for whole class editing, demonstrating continuity, effects and transitions.
- Encourage more focussed editing by limiting the final movie to a maximum of one or two minutes. How could you convey the message with less? Can the viewer fill in the gaps? Think about TV commercials that create a narrative within a very tight time frame. What editorial techniques do they use to do this?

### 7. Showing/viewing

- View work in progress regularly to encourage peer review and to give pupils the opportunity to develop, refine and modify their ideas.
- Celebrate achievement by showing the finished movies to a wider audience – another class, the whole school, families and friends at an open day event.
- The project could be shared on the school website or intranet, in a PowerPoint presentation, and on CD ROM or DVD. This is also the most efficient method of saving and archiving the resource for future use.
- If your DV camera has a DV-In as well as a DV-Out terminal, finished movies can also be saved back to DV-tape.

## How to edit digital movies with Serif MoviePlus

If you are new to Serif MoviePlus, you can familiarise yourself with the program by working through these guided activities before beginning your project:

### ***Serif MoviePlus 4 Tutorials***

Open MoviePlus and from the **Start Wizard** menu select **View Tutorials**. The Learning Lab has eight useful tutorials that will teach you the basic skills you need to get started with confidence. Work through them using the sample *Miniland* video footage supplied with the program. Print out the tutorials for easy reference.

- Lab 1** – *Getting started*
- Lab 2** – *Video sources*
- Lab 3** – *Previewing your project*
- Lab 4** – *Trimming your video*
- Lab 5** – *Applying transitions*
- Lab 6** – *Applying effects*
- Lab 7** – *Adding titles*
- Lab 8** – *Sharing your movie*



### ***Serif MoviePlus 4 Companion***

This easy to follow, illustrated reference guide covers digital video editing with MoviePlus 4 in greater depth than the online tutorials. It also has more technical information, for example about file types and their uses. Use the Contents or Index to locate the information you need.

## Lesson plan: introducing DV editing techniques

### Buzz words

Storyline, clip, timeline, raw footage, sequence, scene, transition effect, audio track, video track, cutaway, voiceover, video assets, drag and drop, caret, zoom, scroll.

### Outline

This is a skills building lesson to introduce basic digital video editing techniques using Serif MoviePlus. It could be delivered during the pre-production phase, thus informing storyboarding and shooting, or be postponed until the start of post-production.

### Objectives

- To create a storyline by dragging and dropping selected clips onto the MoviePlus Timeline and sequencing them
- To trim the clips by adjusting their start and end points
- To add a title slide to the movie
- To understand how post-production editing has a crucial effect on narrative meaning
- To have an awareness of the link between the capture of raw footage and the role of editing in producing a finished movie.

### What you need

At least one computer with MoviePlus installed; 4 or 5 short video clips saved to the network or the hard drive; a data projector or large monitor; an interactive whiteboard (optional); copies of the homework sheet that you can download (see below).

### Pupils' previous experience

Pupils have watched and discussed a selection of film or video clips. They may also have planned and shot the footage for their movie(s), but they have no previous experience of video editing.

### Starter (10 minutes)

Using a data projector/interactive whiteboard/large monitor, play each of your saved clips separately to the whole class. Freeze the footage at appropriate moments for pupils to identify filmographic techniques that have been previously discussed such as camera angle, viewpoint and type of shot.

Explain that you are going to create a short opening scene from some of these clips. Select three clips and drop them onto the timeline, then play back the sequence. Discuss what might happen next and ask pupils to suggest possible storylines. Next, rearrange the order of the clips, and/or add in a fourth. View the new sequence and talk about what you have done and how it may have affected the storyline.

Tell pupils that they are going to work in groups of three to make an opening sequence from their own selection of the same clips and ask them to find a title for their imaginary movie. If there is only one suitable computer, the groups will need to do this on a rota basis while others work on different planning and preparation activities.

### Main activity (25 – 30 minutes)

1. Introduce new terminology by giving a running commentary on your actions as you demonstrate the new skills:
  - a. model the drag and drop process used in the starter activity again [**Lab 2: Video sources**];
  - b. show pupils how to play back, rewind and pause a sequence [**Lab 3: Previewing your project**];
  - c. model one method of zooming in on the Timeline to view it in greater detail [**Lab 2: Video sources**];
  - d. demonstrate how to trim a clip by adjusting its start and end points. [**Lab 4: Trimming your video**] (5 minutes)
2. Groups develop their own versions of an opening scene from the clips. (10 minutes)
3. Show the class how to create a title slide. (5 minutes)

4. Groups make an appropriate title slide and continue to fine-tune their movies. (10 minutes)
5. Give individual support and encouragement, or interrupt the activity to demonstrate something again to the whole class when and as appropriate.

### Plenary (10 minutes)

View several of the finished mini-movies, encouraging pupils to give each other constructive feedback by commenting on an aspect they think is successful and suggesting one improvement, as they also compare versions in terms of narrative differences. Ask the groups to describe what the next scene in their movie might be, given their proposed title. What shots, ideally, would they like to include in the opening sequence? What kind of audio would they choose to accompany it?

### Homework



Distribute homework sheets (see below for a link). Ask pupils to add a text label to each of the numbered arrows on the photocopied screenshot to identify the program feature indicated. Differentiate worksheets by including the terminology bank for pupils who need more literacy support, but delete this for more able students. More confident pupils could also add instructions for the steps they covered during the lesson. The worksheet will serve as a reference for pupils when they start to edit their own videos.

### Extension activities

- ☆ Add purposeful transition effects between selected clips (but don't overuse this technique). [**Lab 5: Applying transitions**]
- ☆ Add a video effect to one clip to enhance storytelling and add interest. [**Lab 6: Applying effects**]
- ☆ Create closing credits. [**Lab 7: Adding titles**]
- ☆ Make adjustments to the planned shoot (if it has not yet taken place) in the light of new skills and insights.
- ☆ Use the 'She's Leaving Home' picture storyboard below either as a photo sequencing activity (print it out and cut it up), or for pupils to practise scripting a commentary and audio for the storyboard.

### Criteria for success

- All groups created a short sequence
- All groups were able to re-order the clips
- Most groups made a simple title slide
- All pupils gained some understanding of how editing techniques might shape their movie
- All pupils have a growing awareness of the relationship between planning, shooting and editing video footage.
- All groups are ready to start editing their own video using these basic techniques.

	<p style="text-align: center;"><i>Download the homework sheet and a key</i></p>
	<p style="text-align: center;"><i>Download the picture storyboard, 'She's Leaving Home'</i></p>