

## SECTION C:

# Planning for the use of Video Conferencing across the Curriculum

### IN THIS SECTION:

**English**  
**Maths**  
**Science**  
**Art and Design**  
**Citizenship and PSHE**  
**Design and Technology**  
**Geography, Education for  
Sustainable Development**  
**History**  
**Modern Foreign Languages**  
**Music**  
**Physical Education**  
**Religious Education**  
**Special Needs**



**As you gain confidence, you will want to extend your use of video conferencing to support activities across the curriculum.**

**As an essential part of curriculum planning, you will want to consider:**

- **Medium and long-term plans - where can video conferencing best support your work?**
- **Who best to conference with to add value to your lessons**
- **How to plan for successful conferences**

### **VIDEO CONFERENCING OFFERS:**

- A range of opportunities for speaking and listening
- Opportunities for 'real' communication
- Access to experts and expertise outside the classroom

### **ITS USE CAN RESULT IN:**

- Increased student motivation
- Improved speaking skills
- Improved listening skills
- Progress in foreign languages
- Increase in confidence and self esteem
- Impact on cultural awareness

Video conferencing's unique quality is its facility to enable and encourage interactivity. Unlike a video or a DVD, you can stop whoever is talking to you and communicate directly with them.

### **WHAT CAN YOU DO WITH IT?**

#### **Some ideas for teachers and pupils:**

- Links with other schools - local, national and international
- Whole class links, small group links, links between individual students
- Opportunities to work co-operatively, present work/ideas to each other, share visitors
- Support for gifted and talented pupils - networking between a cluster of schools to engender collaborative links
- Support for groups of pupils and individuals who don't easily have access to the full curriculum. This might include pupils who are geographically isolated and pupils with special educational needs
- Team teaching
- Delivery of examination courses - sharing expertise between schools or using an external provider
- Links with experts - many museums, galleries and other organisations can provide expertise for schools via video conferencing
- Cross-phase links - pastoral support for transition/support for transition within subject areas
- Links with higher education - universities are increasingly using video conferencing to support the entry process
- Multipoint links - involving more than two locations

## Some ideas for teachers and trainers:

- Lesson observation - teachers and trainee teachers can observe lessons in classrooms anywhere in the country. They can also comment on a lesson while it is in progress without causing disruption and talk with the teacher and pupils afterwards, if they so wish.
- Opportunities for CPD - there is considerable value in links between teachers to share ideas and disseminate effective practice.
- Shared staff meetings - there are lots of possibilities here. For instance, you could have a speaker between two or three schools, saving on costs (both for the speaker and for travel) and time. You could meet up to discuss the implications of a new syllabus, or just discuss good ways of teaching a difficult topic.
- Opportunities to share expertise about special educational needs.
- Mentoring - teacher mentors can link with higher education staff. Experienced teacher mentors can train and support new teacher mentors.
- Assessment - lessons can be observed remotely and recorded, if required, for assessment purposes.
- Trainee teacher support - trainee teachers on school placements can use video conferencing to discuss their lessons, share ideas, plan work together and discuss resources.

*The first edition of this book included examples of work going on in schools throughout the UK linked to case studies on the BECTa and Global Leap websites. There are 45 case studies - practical examples of video conferencing being used in the classroom - currently available on the websites and these are being added to all the time. Details of these case studies are listed in the grid in Appendix 1 at the end of this section. If you would like to add a case study of your own to the website, please use the template on [www.becta.org.uk](http://www.becta.org.uk) and [www.global-leap.com](http://www.global-leap.com), where you'll also find guidelines and details of where to send it.*

## CURRICULUM USE OF VIDEO CONFERENCING

- The model of students getting together, presenting work to one another and following up with feedback and discussion is one that can be productively applied to all curriculum areas. With the increasing emphasis in the National Curriculum on awareness of different audiences, video conferencing can provide real audiences of all kinds. As well as linking with contemporaries in the UK, similar links can be made with students of different ages, with groups of adults, with students in different countries and, in fact, virtually any group of people with access to video conferencing equipment.
- There are also occasions in all curriculum areas when groups of students in separate locations can benefit from working together on projects or ideas, either as a one-off experience or a series of links over a period of time.
- The ability to link with experts outside the classroom is a benefit of video conferencing which can also be applied across the curriculum. As the number of schools with video

conferencing capability increases, so too does the number of 'experts' ready to share their particular expertise, specialisms and experience with schools.

Here are some specific examples of how video conferencing can be used in different curriculum areas. This is not an exhaustive list of opportunities, just some ideas to get you started. Do have a look at some other curriculum areas besides the ones you are particularly interested in, as a lot of the ideas are transferrable.

## ENGLISH

The most powerful aspect of video conferencing is its potency as a communication tool. For English teachers, the chance for their pupils to talk to a variety of audiences is invaluable.

There is a range of possible activities which fall broadly into four categories:

- Performance and follow-up
- Working collaboratively - comparing and contrasting, discussion and argument
- Gaining access to different cultural contexts
- Gaining access to experts and research

Here are some examples of each.



### Key Stage 1, 2 and 3

Each idea can be linked to a number of National Literacy Strategy and KS3 Framework for Teaching English objectives and adapted to suit age-related expectations. See the grid in Appendix 2 at the end of this section for examples.

**Performance.** Video conferencing can add an extra dimension to performance of any kind. As well as performing poems to classmates, you can perform them to a class in another school and they can perform theirs to you. As well as adding to the enjoyment and motivation, the discussion that would follow about how to improve the readings would also be very valuable.

Video conferencing encourages talk at all key stages. It can be used to encourage talk between children about a variety of topics, for instance sharing a story, describing school routine and events, talking about a favourite object or discussing a familiar class activity.

At Key Stage 1, using a soft toy like a teddy bear can be an excellent starting point for a video conference link. Schools can exchange teddy bears, then the bear sends home a diary by email describing its adventures, the places it has been, as well as the things it has seen and done and, of course, recounts its adventures by video conference. This activity can also enhance understanding and acceptance of diverse cultures.

**Working collaboratively.** Link your class with a class from the same year group in another school. Decide with your link teacher which books/poems you are each going to read - for instance, you might each read different texts by the same author. At an appropriate stage,

video conference with the other class to discuss a writer or a specific text.

This could either be a whole class activity, a small group activity or a combination of both. The video conference/s will need to be planned and structured, which you could do via email beforehand, either with the teacher or involving the children as well.

**Collaborative writing.** Video conferencing can also be used in conjunction with email to support collaborative writing. Groups of children could structure and plan a story together. One group could then write the first chapter as planned and email it to the second group to write the next chapter and so on. Video conferencing could be used at appropriate stages in the process to review and adjust the work.

**Debate and Argument.** Numerous National Literacy Strategy objectives are linked to *arguments, discussions and persuasive writing*.

Video conferencing can provide an ideal forum for debate and argument of all kinds. You could set up a debate with your partner school when you each present one side of an argument. Alternatively, each point of view could be presented by a group including children from both schools, so they would have to video conference BEFORE the debate to prepare their presentation.

Other ideas include comparing the effectiveness of leader writing and/or advertisements from local papers, or adverts on your local commercial radio station (which you could send to your partner in advance of the discussion). You could perhaps invite someone from the paper or radio station into one of the schools to join the debate.

You could extend your study of persuasive writing by asking children in each school to choose what they consider to be an effective piece of persuasive writing. The pieces could be read, deconstructed and discussed and then, perhaps, marked for effectiveness. Adding a fun and competitive edge to the proceedings can, again, add a whole new dimension to the proceedings. The possibilities are endless.

**Gaining access to different cultural contexts.** Video conferencing is an ideal way of experiencing other cultures at first hand. Children at school in an inner city area could benefit enormously from linking with a school in a distant rural area to discuss a book which is set in the countryside. Schools in areas of more limited cultural diversity in the UK could perhaps link with schools with a multi-cultural intake, either in the UK or elsewhere, when studying a text or poetry. These links need not be 'one-off links' simply to study a text together, they could be the beginning of rich cross-curricular links between the two schools.

**Research/linking with experts.** Video conferencing is a great way to gain access to experts. Many schools will have local authors and other experts who may visit their school to work with the children. Video conferencing allows you to share your experts with others and to benefit from their experts. For instance, if a local author visits your partner school you can video conference with them in advance and plan questions together and who is going to ask what.

The children at your partner school may also be a valuable source of information if a book or story is set in their locality and you want to find out more about it. You could, for instance, study myths and legends set in your partner school's locality (which they could send or email to you), then set up a video conferences to ask questions and discuss them.

**Assessment at Key Stage 3.** Video conferencing could be used to support peer and self evaluation of performance within speaking and listening assessment tasks.

**The above ideas can be adapted for use at Key Stage 4 as appropriate.**

**Assessment at Key Stage 4.** In Year 10, for example, video conferencing can be used to support the assessment of the GCSE Speaking and Listening Extended Individual contribution. Make a link with a Year 10 English group in another local or UK secondary school and arrange for the two groups to make presentations to one another. The audience, although they are peers, are an "unknown", which helps to introduce an element of formality to the assessment. It also, of course, brings an interesting new dimension to the classroom. Technology, when it works and is at its best, is always a means of motivating students.

**Reading.** As well as improving students standards of speaking and listening, there are many ways in which video conferencing can enhance students' reading:

- It can inform the social and cultural dimension of texts. For instance, a link with the Anne Frank House when studying *The Diary of Anne Frank*, The Imperial War Museum when studying war poetry, or the National Archive when studying Dickens would add an invaluable extra dimension to the work.
- Networking promotes wide reading for pleasure - talking enthusiastically about a book you have just enjoyed reading.
- It raises the status of talk in the students' eyes.
- It provides an arena which requires certain conventions, e.g. speaking slowly and clearly, considering presentation skills and not fidgeting.
- It gives students another platform to demonstrate their ability to discuss texts in some depth without formulating a written response.

For English teachers, embedding video conferencing in the curriculum - essentially a very simple information and communication technology which puts the emphasis squarely on the *communication* - can offer a lively and interactive way of raising the standard of attainment in the subject at all Key Stages.

## MATHS

There are various ways in which the use of video-conferencing can enhance teaching and learning in the maths classroom. Imagine these scenarios:

- You have a couple of particularly gifted students whose attainment and understanding is significantly beyond that of their peers. These two often feel isolated and frustrated, repeating work they have already understood, or working on their own. Yet it can be difficult to provide them with challenging work, while still meeting the needs of the rest of the class. Instead, they could video conference with other students like themselves at other schools, working on more challenging problems, jointly sharing methods and solutions.

- You have a group of students who want to study an aspect of the syllabus for which you do not have a teacher in your school, for instance a certain A level module. If they joined a class elsewhere by video conference, not only would they get to study the module they want, but one of your staff could also see how it's taught, giving them in-service training on the module.
- You have a group of students whose maths is perfectly competent, but who are plainly bored with it all. They could video conference with a group at another school, taking turns to present a problem for the other group to work on, and presenting their solutions to a problem previously given to them. The contact with other students, and the chance to plan work for them, would liven things up a bit, and give them greater motivation.
- You have a small class (maybe at a small primary school, where there are only a few students in any given year group), and they don't have many opportunities to hear other students talking about maths. Two such classes could share maths lessons via video conferences, with their teachers taking it in turns to teach both sets of students. Students would get to hear other students talking about how they work things out, and also hear other teaching methods and styles.
- You have a group who can't see why they need to study maths at all, not seeing any relevance to themselves and their futures. They could 'meet' people who use maths in their working lives, and find out more about how people actually use maths, and why it is so important.
- You have a class where no one wants to talk about maths, except to answer the teacher's questions as briefly as possible. They could video conference with an expert, who could set them some problems which would lead them down unusual paths. They would need problem-solving skills and team-building skills to solve the problem successfully. They would need to plan who was going to do what, to collaborate on carrying out tasks, and to discuss the way forward. They might even have some fun!
- You have a teacher who is not qualified as a maths teacher, but would like to observe good practice and take part in team teaching with a more experienced colleague. Why not use video conferencing for this?

Video conferencing is a great way for students and teachers to experience an enriched curriculum, enabling them to move beyond the limits of their immediate situation. 'Enrichment' is appropriate for all students, not just those labelled 'gifted and talented', as it gives all students a context for the mathematical techniques they learn. If masterclasses are not available in your local area, perhaps your students could access them via video conferencing. It also gives them the opportunity to have fun in maths! Why should maths miss out on special events?

Get together with another school, and agree a set of objectives which you would use video conferencing to achieve. These might include:

- increasing students' ability to communicate using appropriate mathematical vocabulary and symbolism
- increasing interaction and collaboration between students working on mathematical tasks (both within the class and between classes)
- giving students a genuine audience to present their work to
- enabling team work, where each sub-team does part of a piece of work, then video conferencing is used to put it all together.

It can be really hard to encourage purposeful mathematical communication between students about maths. How many times have you asked a student to explain something interesting, and all they can come up with is “You know, that stuff we did last Tuesday.” Now suppose that student has to explain something to another group via a video conference. They’re going to have to think of a better explanation than that, because the other group won’t have a clue what went on last Tuesday. Students really enjoy getting together with others of their own age, and finding out about what they are studying, and they often find it easier to understand the explanations children their own age make, because they use ‘kid’s language’.

Here are some other ideas you could try:

**Group work.** Schools could join together on a “problem solving” project. Each school in the group agrees to implement a “Problem of the Week” initiative where a different mathematics problem or investigation is displayed prominently around the school each week. Each school promotes this by offering prizes for the best solution, mentioning in assemblies, etc.

Pupils from each school present their solutions to each other and share their thoughts on future problems they might work on.

**Access to experts.** It’s always good for students to have access to different teachers, different areas of expertise and teaching styles. You could set up a video conference link with a maths teacher in another school using the same exam board that your students are following, ideally one who is an examiner or marks papers for that board, although this isn’t essential. The teacher could talk to the students about exam technique and classic misconceptions and errors which s/he often comes across when marking papers.

Students would need to prepare beforehand and be ready to present some answers to questions on specific topics during the session. The students might also work together on a question to produce a joint “best performance” answer to present. The teacher could offer a critique of these answers and further advice specific to those particular chosen topics.

You could reciprocate by doing the same for the group from the other school - or present something different based on a particular area of your own expertise.

**Motivate** is a real-time video conferencing project for schools that enables students of all ages (5-18) to interact with professional mathematicians and others with a real interest in maths. This gives them the opportunity to find out about how people actually use maths, to see what relevance it might have to their own futures, and to find out why they are learning the techniques they are taught. Students also have an opportunity to work on material which depends on their curriculum studies, but extends it in unexpected ways.

Motivate also provides courses in using video conferencing in maths. These could include a video conferenced lesson to get students used to working with video conferencing, or a video conference as a focus for a maths day.

*Information about Motivate can be found at [www.motivate.maths.org](http://www.motivate.maths.org)*

**Links with higher education.** Higher education institutions are increasingly using video

conferencing for promotion and marketing. If the opportunity arises for you to link with a university, as part of the link you could arrange for your students to talk with a subject expert. For instance, link with a mathematician and get them to talk to the pupils about what mathematics is really about, why it is exciting, etc. They may be able to show how they go about solving a problem (at a level appropriate to the pupils) 'in front' of them and have a discussion afterwards.

The mathematician could then set the pupils an interesting, novel or quirky problem that was accessible to all pupils at some level. The students could also pose problems to the mathematician.

Regular feedback and discussion sessions would ideally be planned during the period that the children were working on this problem, providing a 'surgery' for problems, suggestions for extensions to the problem, etc.

In addition to all the ideas for using video conferences to enrich maths lessons for your students, don't forget the possibilities for your staff in holding regular conferences with their colleagues in another school. You could have a speaker between two or three schools, saving on costs (both for the speaker and for travel) and time. You could meet up to discuss the implications of a new syllabus, or just discuss good ways of teaching a difficult topic.

## SCIENCE

Video conferencing can be used at all Key Stages to develop and extend pupils' subject knowledge through contact with the wider scientific community.

**Access to experts.** At Key Stage 2 this could include using specialist science staff and technicians at local secondary schools and colleges as well as scientific institutions such as museums. For example, The National Maritime Museum presents a session on the solar system and the Tower of London presents one on "The Science of the Longbow". Pupils will have identified key questions for the museum staff that can be emailed in advance of the link, and may also ask to be shown, if possible, particular artefacts over the link to support their area of study.



At Key Stages 3 and 4 and at Post 16 links could be established to University departments, national and international bodies and through special projects such as links to science-based expeditions.

**Supporting transition.** Video conferencing can help to support transition from primary to secondary school. Bridging projects can be set up and developed via a video conferencing link, enabling pupils to discuss their work with teachers they will be meeting in their new school. Video conferencing prior to school visits carried out by secondary staff can help to maximise the impact of the visit and place pupils' work in context. A video conference where primary pupils can take part in a secondary science lesson will help to support smooth transition. For example, arrange a video conference with a feeder primary school and use the time to introduce to pupils a scientific challenge to see whether they can explain what the best type of

sole for a trainer is to play sports in a hall, on tarmac or on grass. Pupils would then bring their work with them to their first science lesson that would be based around this work. Even if primary pupils move to different schools this type of project will provide invaluable information about a pupil's skills and attainment for their new teachers.

**Practical and investigative work.** Video conferencing between schools at Key Stages 2 and 3 can be used to develop pupils' investigative skills through sharing approaches to common investigations. Pupils carry out the same investigation at different sites and then compare approaches and results. Sharing data can provide more meaningful results, while presenting and listening to reports can help pupils develop evaluative skills.

This type of activity can often provide a positive context for working with schools abroad, including the use of MFL work. For example, a Key Stage 3 practical investigation that looks to evaluate the absorbency and strength of different types of kitchen towel can be shared between different schools, allowing pupils to discuss techniques, critically review methods and share data and evaluations. The benefit of the video conference is in helping to develop pupils' verbal communication and presentation skills, which will help to develop their written reporting for future investigations.

**Supporting specialist courses.** Specialist, limited entry GCSE and A level courses such as electronics and astronomy, as well as AS and A2 modules such as medical physics imaging, human genetics, particle or astrophysics can be supported through video conferencing links to other schools, FE and HEI. For example, arrange a video conference between A2 students studying an astrophysics module and a local university department to discuss current understanding on the physics of the early universe. The A2 students will have identified a number of questions on this area of work that they would like to have explained and emailed these in advance to the university physics department.

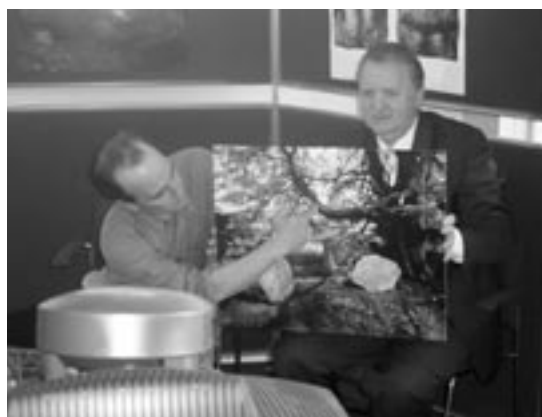
**Science projects and events.** School participation in projects such as 'Researchers in Residence' or in activities such as National Science Week can be supported by video conferencing links. For example, two schools could arrange a video conference link between Key Stage 3 pupils during science week to share productions of short plays written and performed by pupils to illustrate the work of famous scientists.

**Science clubs and enrichment.** Links between science clubs can help to stimulate new ideas and provide a wider audience for pupil interests, for example speakers can be shared, activities can be reported and competitions can be set-up. Groups of Gifted and Talented pupils can be supported and challenged through links to other similar groups for discussion and debate or through links to HEI. For example a science debate on the potential values and dangers of genetically modified crops held between two groups of pupils identified as Gifted and Talented in science could lead to an article published jointly on the schools' websites.

**Teachers' professional development.** There is considerable value in links between science departments to enable staff to share ideas and disseminate effective practice. For example a video conferencing link could be established to enable two departments to discuss different strategies for teaching about particles across Key Stage 3. The discussion could focus on how teachers use modelling and analogy to help pupils understand concepts and what the key misconceptions are and how these can be addressed.

## ART AND DESIGN

Video conferencing presents art and design teachers with another possibility for extending pupils' access to a whole range of artists, galleries and museums as well as presenting an opportunity for pupils to learn new skills and processes and share ideas and evaluations.



If video conferencing in your art-room or classroom is difficult, make a set in the room you are using which reflects an art theme.

If we take the four strands of the National Curriculum for art and design and accept that these evolve seamlessly into the GCSE Assessment Objectives we can explore, through each strand, possible ways of utilising video conferencing to enhance the delivery of art and design across all key stages.

**Exploring and developing ideas.** For instance, you could link with another school doing a similar unit of work. Pupils from each school could show each other their own drawings or starting points that are special to themselves or their own environment. This would work well with landscapes or the built environment. How about a city school linking with, say, one that sits on the coast? The pupils might negotiate and discuss starting points or compare ideas and experiences to help plan a piece of work. They could ask each other questions and discuss how they've developed their ideas, comparing and contrasting different approaches.

**Investigating and making art, craft and design.** For instance, your school might invite an artist, craftsperson, designer or specialist teacher to demonstrate particular skills or techniques to pupils from your own and other schools via video conferencing. It might be possible, for example, to compare the techniques of several different specialists exploring a similar theme. Pupils would then practise and apply their learning over a period of time before presenting their efforts back to the specialist. This would be particularly useful for exploring new techniques that maybe the teacher is unfamiliar with such as felt-making, clay-work or silk painting. Video conferencing is a great way of sharing your experiences with other groups

**Evaluating and developing work.** Comparing and sharing evaluations of their own and other people's work. For example, pupils following a similar theme or unit of work could exhibit their work and discuss their own outcomes, commenting on specific aspects. This would provide a real focus for their evaluations and would require quality preparation time and probably the use of writing frames. The pupils' own presentation and questioning skills would need to be developed, including the use of the voice, eyes and body. Such presentations could take place on a regular basis with the same schools giving all pupils, over a period of time, the opportunity to present to a live audience. There might be scope for a sort of 'Artist Idol' activity with pupils from linked schools eventually voting for an overall winner!

**Knowledge and understanding.** This is probably the most obvious area where video conferencing can make a difference. Many galleries and museums across the world now have facilities for this type of activity. So if you are looking at the work of a particular artist, theme or movement then why not track down the gallery or museum with the type of examples that

you want and let their expert or education officer do the work! For instance, schools can link to experts at the National Portrait Gallery for sessions that include both art and history across all key stages. Sessions from the Imperial War Museum look at propaganda through art, including a study of posters and a practical session where the pupils produce their own historical caricature. All bookable on [www.global-leap.com](http://www.global-leap.com) by registered schools.

## CITIZENSHIP AND PSHE

Students being able to talk with others is a key element in PSHE and citizenship. A lot of the video conferencing ideas in other subject areas will also have significant impact on PSHE and citizenship.

To enhance students' understanding about their own communities, and how they can influence both what happens within those communities and be supported by them, is also a key task of citizenship education. Sharing those ideas with students in different kinds of communities adds even greater value. The following are some suggestions for using video conferencing to do this.

**At Key Stages 1 and 2** schools are required to spend five per cent of their time delivering a PSHE programme. This needs to include work about belonging, relationships, choices, care of the environment, growing and changing, citizenship and healthy living. Video conferencing can support this work in all sorts of ways with opportunities for staff and children to share details of aspects of their school's delivery of the programme which they particularly value or enjoy.

**School Councils - Key Stages 1-4.** Many schools have effective school councils or are wanting to set them up. School councils take on a range of issues and are an effective way of giving young people responsibility and ownership of their school. Video conferencing between school councils and sharing the ways school councils work and the issues they have tackled across different parts of the country can help young people gain an understanding of those from different cultural and social settings.

**Health Education - Key Stages 3, 4 and 5.** One of the skills young people need is how to access health clinics as well as the GPs in their own locality and when they are away from home. Sharing their experiences of doing this is an important way for young people's voices to be heard. Your pupils may have a health forum at school which has enabled them to influence local health provision, and they may well have experiences to share of good or bad support they have received. Video conferencing can provide the opportunity for young people in different areas to discuss and debate issues such as drug use/misuse, sexual health and general health issues and could help lead to improved services for young people.

It may also be possible to set up links with health professionals. Many hospitals have video conferencing facilities for their own training and educational purposes, which they may be prepared to use to link with schools. Sessions can be arranged through [www.global-leap.com](http://www.global-leap.com), for instance, to link with professionals from Queen Elizabeth the Queen Mother Hospital, Margate, to look at health issues and careers in the health service.

**Citizenship - Key Stages 3-4.** Political literacy. Taking a pro-active approach in local issues is to be encouraged through the citizenship curriculum. Young people are rightly proud when they have had an influence on decision making in their locality and there are many good examples of young people contacting their MPs or local councillors about issues of local, national or international concern. Video conferencing offers the opportunity of sharing how this has been done as well as sharing what has been of concern with others in other parts of the country. It also offers support for the political literacy agenda.

**Links with Politicians.** As well as student discussion, there is a real opportunity here to invite a local councillor, MP or MEP into your school to take part in a video conference and share their knowledge and expertise on a particular issue with you and your partner school. Another option is to arrange to conference with an MP either in a school in their own constituency or a location in London.

You could also include a link to a school in another part of the world to highlight and discuss different perspectives of the same issue.

**Global Citizenship.** A willingness to learn from others around the world and increasing the motivation of young people to affect change are just two of the underlying principles of Global Citizenship. The potential contribution of video conferencing to active Global Citizenship is clearly enormous. Possible topics which pupils in partner schools might explore together as a means of highlighting lifestyle similarities and interdependence might therefore include:

- 'A day in the life of' presentation
- A comparison of distinctive cultural ways of life such as religious festivals, toys, the use of leisure time, diets or popular music.
- People in each other's community or country who have worked for equity and social justice and why.
- Issues such as trade, refugees or global warming which highlight the need for collaboration and a collective perspective on a global scale.
- Involving a politician or representative of a national Charity or Aid organisation
- World Health issues including HIV and Aids

## DESIGN AND TECHNOLOGY

There are many aspects of design and technology that lend themselves to video conferencing as the subject is very much about doing things through designing and making and then communicating these ideas to others.

**Key Stage 1.** The activities in Key Stage 1 include teaching a range of focused practical tasks, investigation and analysis of products. Pupils can examine a collection of products related to their particular design and make assignment and come up with a range of statements based on Key Stage 1 product analysis questions. They are designed to draw pupils' attention to:

- the properties and qualities of materials
- technical vocabulary
- consumer preferences
- the idea of fitness for purpose and that designs might be changed.

These are then explored through their own designing and making.

Some examples of questions for KS1 pupils are as follows:

- Who has seen one of these products before and where?
- How do you use the product?
- Is it easy to use?
- What are the correct names for these products?
- What are the names of the types of materials used in these products?
- Why have the materials been used?
- How have the different parts been joined together?
- Is it safe to use?
- What words can be used to describe the shape, colour, feel, and taste?
- What might we have to do before we can use the product, e.g. put in a battery, switch it on, open it up, wash it, and peel it?
- How does a product move and what mechanisms are required and in what direction?

You could develop your own set of cards for each product analysis that uses a range of the questions above which relate specifically to the set of products you are evaluating. You could then present your findings, via video conference, to another class in a partner school where pupils are analysing the same or different types of product. They could do the same to your group and you could compare your findings.

**Key Stage 2.** At Key Stage 2 you need to consolidate knowledge and skills acquired during Key Stage 1 but to also extend the children's capabilities and confidence in designing. Designing is about taking decisions and making choices within the constraints set out by the specification or project criteria. To develop pupils' ability to talk about designing is fundamental to their designing development. Set the children the task of coming up with a range of solutions to the project set and discussing their design decisions with a design 'partner' using video conferencing.

There is the added bonus of being able to show visual information to the partner, and the partner, who could be an older pupil from another school, could give constructive feedback on their design choices.

This will mirror the presentation and discussion sessions that successful designers use to liaise with their clients. Pupils will need to design and label clearly drawings for their intended audience using whatever graphical techniques necessary. They will also need to learn how to make the best use of the camera facilities on their video conferencing system so they can show designs to their partner during the video conference session.

**Key Stage 3.** Student work becomes increasingly complex at Key Stage 3, involving computer-aided design and computer aided manufacturing techniques. Video conferencing can support this activity by linking with a centre with CAM facilities and enabling the students to watch their designs being made. This is particularly useful when schools haven't the capacity to make a large number of individually designed items for a whole class and the design work carried out on Techsoft 2D designer or Pro-desktop software can be manufactured at the local FE college or technology college hub.

**Key Stage 4.** Part of the GCSE coursework and examination in design and technology is to show an understanding of industrial practices.

It would be ideal to make a video conferencing link to a work place where students could interview an employee to find out information for their project work. Students would, of course, need to research and prepare in detail for the link.

Increasingly multimedia approaches are being found in design and technology coursework, so a video of the link could be produced as 'evidence' of research, and the information gathered could be used to develop a product design specification to a high level. Students could then produce a specification and some initial ideas, which could then be shown and discussed through the link and feedback given to support the student with the industrial perspective.

**Key Stage 5, AS and A level AVC.** Students at this level have to understand a range of industrial manufacturing techniques, so a video conference link with a manufacturer which enabled them to watch and discuss some of these techniques relating to their design proposals would expand their knowledge considerably. It would also be beneficial for them to have a 'mentor' from an industrial background. A video conferencing link with a mentor would enable the student to show and exchange ideas and to prepare for future meetings.

## GEOGRAPHY

Video conferencing can provide an exciting and highly motivating means for pupils, of all ages, to carry out studies of contrasting localities both within the UK and overseas.

- For example, at Key Stage 1, pupils at an urban primary school might compare, through digital photographs, oral descriptions and virtual fieldwork via video footage, the vicinity of their school with a partner institution in a more rural environment.
- Later, at Key Stage 2, this could be extended to enable pupils to compare and contrast their locality with the locality of a partner school in a less economically developed country. Here, clearly defined headings such as 'Jobs', 'Shops', 'Transport', 'Pollution', etc., requiring a period of research in preparation for reciprocal presentations during a number of video conferencing sessions, might be used to focus the study.
- At Key Stage 3 pupils could use video conferencing sessions with a school overseas to explore the theme of 'Development'. For example, the exchange of key social and economic indicators such as life expectancy, television ownership, the number of patients per doctor, etc could be the starting point for examining the effects of differences in development on the quality of life of different groups of people.

## EDUCATION FOR SUSTAINABLE DEVELOPMENT

Video conferencing provides tremendous scope for pupils to explore environmental issues together, particularly the idea of sustainable development, recognising its implications for each other's lives.

- For example, pupils in two schools might make a presentation to each other about the implications of an environmental change occurring locally such as the construction of a by-pass, deforestation or attempts to develop alternative sources of energy.
- To encourage pupils to think about how they might live in a more sustainable and less wasteful way, video conferencing could be used to enable children to compare relative amounts and types of rubbish from households in the UK with households in other countries.

- Similarly, pupils could compare the patterns of their journeys to and from school and use the outcomes as the basis for exploring the issue of sustainable transport systems.

## HISTORY

There are many aspects of the history curriculum which can benefit from video conference links with other schools as well as links with experts.

**Local history.** When studying local history at Key Stage 2 or 3 (1750-1900) or at GCSE, two or more schools could prepare a presentation for another school from a contrasting locality. Presentations at Key Stage 2 could be on “Local Heroes”.

Alternatively, each school could prepare a “Detective work” pack of resources about its own area and send it to the partner school, challenging the pupils there to work out as much as they can about the partner school’s locality. The video conference would present and follow up the findings.

**Interpretations of history** offer a rich vein for video conferencing. Schools could be asked to prepare one view of an historical event or person while another school prepares a contrasting viewpoint. The video conference would involve presentations with question and answer followed by a “free vote” of all pupils about which interpretation they think is most convincing. Possible questions include “Was there really a Blitz Spirit?” (Key Stage 2), “Bad King John?” (Key Stage 3), “Has Pasteur’s contribution to medicine been overrated?” (Key Stage 4)

Balloon debates where different pupils from different schools argue the significance of different characters in history are also possible.

With sensitive handling it may even be possible to explore how different nationalities teach events of common interest, e.g. the French Revolution, the Cuban Missile Crisis or Civil Rights.

“**Triumph shows**” could be arranged where pupils present to another school their recent work in history (or teachers share teaching ideas). Cross-phase presentations could be made, e.g. secondary pupils studying the “Break with Rome” by Henry VIII (Key Stage 3) could be challenged to lead a presentation about this complicated issue for pupils in Key Stage 2.

Variations on “**quiz shows**” could be arranged. Teams from two schools at Key Stage 2 could collect some obscure artefacts and prepare “Call my Bluff” style definitions for the other school to choose from.

**Links with experts.** Finally, there are many museums and galleries that now offer video conferencing programmes, many of which have been developed with direct support from ‘The Video Conferencing in the Classroom Project’. For instance, The National Portrait Gallery offers “Growing up in the Past” for Key Stage 1 and “Tudors and Victorians” for Key Stages 2 and 3. The National Maritime Museum offers a Key Stage 1 session called “Trim the Cat”, storytelling about the real adventures of Trim, ship’s cat and friend of the 19th-century British explorer, Matthew Flinders, as well as a Key Stage 2 Tudors and Vikings session. The Tower of

London offers a whole range of sessions including one about “Charlie the Raven” for Key Stage 1, Elizabeth I and Cavaliers and Roundheads for Key Stages 2 and 3.

There is also a range of sessions available from The Imperial War Museum, The National Archive and the Cabinet War Rooms.

Details of these sessions and others are on [www.global-leap.com](http://www.global-leap.com) and can be booked by registered schools.

In time, it may be possible for pupils to hold video conferences with other “experts” such as text book authors, examiners or coursework moderators. Push at the boundaries!

## MODERN FOREIGN LANGUAGES

One of the greatest impacts of a video conference link with another country is its capacity to make a language come alive and to bring its real use directly into the classroom.

The relevance of learning a foreign language is sometimes questioned by young people. Many classroom activities fail to engage their interest since they lack a real audience and a real purpose. But when they come face to face with young people from France, Germany, Spain, Italy, Japan or other countries around the world wearing similar fashions, interested in the same sports and the same music as themselves, the language suddenly becomes entirely relevant.

The urge to communicate takes over, just as it does during a school exchange, but through video conferencing such an experience can be a regular part of classroom learning.

As well as helping to improve language skills, video conferencing also provides excellent opportunities to develop the pupils’ cultural awareness, an essential part of the MFL National Curriculum programmes of study, often difficult to deliver in the everyday classroom; for example by enabling pupils to:

- communicate with native speakers (4b)
- compare their culture with others (4c)
- consider the experiences and perspectives of people in other countries (4d)

Here are some ideas to use in the MFL classroom.

**Interviewing. Key Stage 2.** At the end of unit one, in the text book *Equipe 1* there is an interview activity - set up a video conferencing link and use your partner class to be the interviewers and interviewees. The book even provides prompts for the children’s questions. It may be necessary to carry out the activity in lunchtimes, in which case it is a good activity for pairs of children. As confidence grows, the children can supplement the questions with whatever they happen to be covering in class at the time. Such links have a long shelf life because the partnerships vary each time you link and the exercise has the feel of a “chatroom”.

**Talking about traditions throughout the year.** Bring along artefacts to do with a festival - for instance Easter, Harvest, Valentine’s Day or Christmas, which is a good one to start



with. Arrange the mince pie, Christmas pudding, carrot, glass of sherry, cracker and other artefacts on a table and pre-set the camera positions to show them during your presentation. Prior to the conference, prepare a written description in English and the target language of what will be said during the presentation and e-mail it to your colleague abroad so that the vocabulary can be introduced prior to or after the conference, depending on the group. Your colleague should do the same for their artefacts. Each class, working in groups, then presents their artefacts in the target language.

There is a number of permutations: your partners' presentations could be in their own language, if you want to focus on listening skills for the group watching, or in the foreign language if you wish your own pupils to practise this.

After the presentation, there is the chance for a free discussion about different traditions, with teachers assisting comprehension where necessary.

**Presenting information about yourself.** Pupils prepare a collage of their family, hobbies, pets, bedroom and so on and present it to their partner/s. There are a number of ways of doing this:

- The students can hold the collage up in front of the camera as they speak.
- The collage can be put on a stand or pinned to a notice board and the camera can zoom in on the various component parts - and cut back to the speaker as necessary (or not if the speaker is shy!). The speaker can also use notes in their target language without them being seen. The collage could also be copied, reduced, scanned and emailed for discussion afterwards.
- The collage could be compiled entirely electronically using a graphics programme and emailed to the partners in advance.
- The pictures could be taken on a digital camera and shown to the partners as the student is talking, if your video conferencing system has this facility.

Whichever method you use, the students will still be developing confidence and self-esteem!

**Giving a presentation about your school using video, digital pictures and/or Powerpoint.** Over the course of a few lessons, prepare information about your school in the target language and illustrate it either with video or digital pictures. You can either link the video or pictures directly to the video conferencing system (see Section B for more information) or put them into a Powerpoint presentation and include text and graphics too to enhance the presentation.

Link a laptop to the video conferencing system and pupils can make their presentations, singly or in groups, to their partners, talking in the target language. Again, speaking with aid of visuals helps minimise any embarrassment, consolidates learning and gives a purpose to all that GCSE preparation!

**Friendship links.** Set up a drop-in club at lunch time along the lines of an internet café so that pairs of students can conference freely as they choose. Prepare the way by exchanging I.D. cards and letters in the target language via e-mail. Consolidate with a face-to-face video conference.

### **Asking and answering questions in the target language (Key Stage 3 and 4).**

This activity can be done with partners in European schools, other UK schools and even, if you have two video conferencing systems, between different classes or two groups from the same class in your school. Using video conferencing for this activity, whichever the partner school, focuses the mind hugely and, coupled with careful preparation of questions and answers as normal in the run-up to GCSE, can be a powerful revision and motivational tool.

Boys, particularly, love to try to trip each other up with a difficult question and quickly learn to ask a past tense question or demand an opinion!

E-mail questions to your European partner school beforehand and ask them to ask the questions first and then to answer for the English students, giving practice in both skills of listening and speaking.

### **EXTRA, UNPLANNED BENEFITS AND TIPS**

Trying to manage a classroom, speak to colleagues in the target language and put shy learners at their ease can be taxing. To make things easier, share the work with the pupils! Give them the remote control and the task of setting preset camera positions and operating the camera during the conference. Ask them to respect each other by setting up pairs or threes and ban close-up shots of individuals. Teenagers do not like these! This not only eases the teacher's burden but also involves learners who initially may only wish to listen rather than speak before a camera. It also creates a co-operative atmosphere in the class.

Finding times to conference with classes in European schools can be a problem given the time difference, so it may be necessary to link pupils of different ages, but this can sometimes be beneficial. For instance, a link between primary-aged pupils in Germany and Year 10 students in the UK can be successful because the older pupils feel 'obliged' to speak German to the younger children who, although only beginners in English, are still prepared to use it in front of the camera!

Video conferencing with pupils in Europe who aren't wearing school uniform can stimulate a lot of discussion about the differences between UK schools and schools abroad. This can be a really spontaneous exchange and gives an opportunity for all pupils to get involved.

**Discussing topical issues.** These conferences with partners in other countries may take place in English as the Lingua Franca, although pupils sometimes get so involved and want to put their point across that they chip in in the target language! Good topics and ones which are easy to talk about might be:

- The Royal Family - do we need them?
- War is sometimes necessary.
- All pupils should wear a uniform
- How do others see us?
- "What Challenges You?"
- HIV and Aids
- Being a refugee
- International political issues

For these, as with other conferences, preparation is essential - brainstorming discussion points and identifying key words in the target language. You could also exchange information about the subject with your partners beforehand - photographs or drawings, perhaps. For a discussion about stereotypes, for instance, you could send images of what you felt was typically British (the Union Jack, a bulldog, The Queen, fish and chips, rain and fog) to provoke discussion. Your partners could do the same!

## MUSIC

The use of video conferencing can support many aspects of the music curriculum, notably composition and ongoing skills. There are opportunities for teachers to plan together and for students to share 'work in progress' and perform to one another. Here are some suggestions of how video conferencing with another school could enhance composition work.

**Composing (Key Stages 1-4).** Here's a suggestion for a series of three video conferences which would support work with a class from another school.

First, plan a stimulus suitable for the groups involved as a starting point with the other teacher, for instance, a piece of music, a style of artwork, a piece of prose or poetry, a local geographical scene, an object, activity, working model or mechanism from work in science or design and technology, or a religious story or historical event made into role play

In your first video conference share and discuss this starting point, which the pupils could go on to use as a springboard for a composition in small groups. One group could use words linked with the stimulus, another could devise rhythms, other groups could work on tuned and untuned percussion. A group could use instruments they play outside of school, another could use software.

The second video conference could be a 'work in progress' session. The various groups play what they have got so far. Each group at School A listens to one group at School B. This ensures some quality listening and quality peer assessment, with helpful comments about how to continue the work. Work then continues on completing the composition.

Before the final conference the pupils should design a programme and email it to their partners.

The final conference will be Performance Day. The two teachers will have planned an interactive performance - so the audiences in each school will experience a mixture of live performance and performance from the far-end. (NB It would be very difficult for both groups to play together because of the slight time delay!)

**On-going Skills (QCA units 1,8,15).** Here is a unit of work which includes two video conferences. Before the first video conference the class teachers would need to decide upon a repertoire to teach the children, for instance songs linked to a topic being studied in history, art, science, etc. They can also decide on some listening activities and challenges linked to learning objectives in QCA units of work.

In the first video conference, School A performs a song. School B will have been given a listening task, e.g. linked with key lyrics, or how many times a particular rhythm or melody

occurs. School B throws a challenge to School A, for instance to develop an awareness of phrase when singing this song by the next session.

School B then performs its song. School A have been given a listening task. School A challenges school B, for instance to control expressive elements by next session.

In between conferences, the class teachers work on learning objectives ready for next session plus one new song.

The second video conference would follow a similar pattern, and challenging questions will be asked. Has the old song improved? Has the other school achieved the learning outcomes? What objectives could they work on with the new song? These sessions could continue throughout the school year, extending the repertoire of songs and building up the learning objectives.

**Workshops with amateurs.** There are many ways the schools could work with amateurs. They could work solely in one school or base their work at School A for session one and then at School B for session two. This would need a detailed planning meeting between the class teachers and the musicians before the sessions. Many of the ideas mentioned above could be adapted for these sessions.

**Sharing international and traditional music.** Video conferencing also provides opportunities to share music with people all around the world. Project SAXophone International Video Conference Music Festival in Chicago is an example of schools around the world cooperating to share music. Visit [www.vceducation.org/music.html](http://www.vceducation.org/music.html) to find out more.

You could also set up your own sessions sharing music with partner schools in different countries.

## PHYSICAL EDUCATION

The ability to link groups of teachers, pupils and students by video conference provides physical education teachers with opportunities to enrich both the teaching and learning in the subject and also bring teachers together more frequently to discuss key aspects of subject development.

**Collaborative work.** Within 'A' level teaching there are significant advantages of sharing expertise with groups of students in different colleges. On-line discussion and debate have enabled students to consolidate their thinking and establish their understanding. Video conference links between students following the same course would be a more effective way of doing the same thing.

A good task for "A" level students would be to set up specific conference links to help with revision tasks. Many video links can be kept short, and built into lessons, seminars or key lectures to help pupils to scaffold information and make sense of complex issues.

**Links with key professionals.** It would also be beneficial to set up links with key professionals in the sports medicine, sports development and national governing bodies and even professional sports men and women. These sessions could help to engage pupils and give

them access to people who have particular expertise or views to share. The opportunities are endless.

**Management issues.** A further application of video conferencing in physical education and school sport is seen where rural School Sport Coordinator partnerships work on line to manage key management issues and to share best practice across a large county. The Partnership Development Manager can keep in touch with his/her 12/13 school sport coordinators on a regular basis using a simple video link with the team. This saves valuable travel time and keeps meetings prompt and highly focused. As the National Strategy for School Sport Coordinators managed through Sports Colleges develops, remote management and isolation within the job remain challenges that can be over come with video conferencing technology.

## RELIGIOUS EDUCATION

The use of video conferencing in religious education offers the opportunity for pupils to embed their learning about religion within the real world of faith communities, to extend their understanding by discussing issues with peers in other schools and localities and to contribute to their spiritual, moral, social and cultural development.

### **Establishing links with members of faith communities.**

It is valuable for pupils to be able to speak to adherents about religious beliefs and practice when representatives of a particular faith are not easily available in a particular region. Video conferencing can provide this opportunity. Individual schools can arrange contact with people who base their lives on religious principles. Your religious education adviser will have contacts with speakers from each of the principal religions of Britain who could appropriately address pupils' enquiries. A priest or an imam could be invited into a local school or CLC and link to schools in other parts of the country. Such an exercise goes well beyond any experience that can be gained from reading a book or watching a video. It is live and is the next best thing to inviting the visitor into the classroom. The questions of the pupils and the precise learning objective can be addressed. This method can be used in religious education at any key stage.



**Multipoint events.** If you want to share a link you have established with another school, you can establish a multipoint conference (involving more than two participants). It is often more convenient and efficient in terms of time and other cost. For information about setting up a multipoint conference, see Section A.

**Collaborative work.** Some schools have established links with schools in other parts of the country where there is greater diversity represented in the classroom. Such a situation gives a new and valuable dimension when studying a religion not well represented locally. It is important in these circumstances that it is of mutual benefit to both parties and that there is giving and receiving on both sides.

Providing the opportunity for pupils to meet and work with members of faith communities, especially of their own age, results not only in greater knowledge and understanding but also

in the development of respect for other people's beliefs and values and the social skills that are necessary. It contributes to the recognition of the diversity within religions and avoids the danger of stereotyping. It offers a valuable opportunity for well-grounded, enquiry-based learning.

Almost any unit of work in religious education would benefit from links with the wider community through video conferencing. If local visitors or other resources are not available, the use of video conferencing will enhance the learning. Teachers of religious education in community and voluntary controlled schools have to base their planning and teaching on their local agreed syllabus. Those in voluntary aided schools use the documentation approved by their governors. See Appendix 3 at the end of this section for a list of potential activities linked to the QCA scheme of work. These should be adapted to meet the requirements of the local agreed syllabus or other defining documents.

## LINKS WITH EXPERTS

The opportunity to bring experts from all over the world into the classroom is one of the real strengths of video conferencing.

The 'Video Conferencing in the Classroom Project' (Museum and Gallery Programme) offers sessions bookable via [www.global-leap.com](http://www.global-leap.com).

Some other museums may have their own booking systems. Check their websites for current availability and costs, if applicable. Most of these providers will want to plan forthcoming sessions with the teacher, discuss preparations and make any necessary adjustments to suit specific requirements. Teachers will need to make their own judgements about the suitability of the sessions offered.

## THINGS TO THINK ABOUT WHEN SETTING UP A VIDEO CONFERENCE LINK

### 1. Exactly what do you want your students AND those they are linking with to learn?

- What aspects from the programmes of study or syllabus?
- What PRECISE learning objectives do you want them to achieve?
- What are the questions that all involved in the conferencing will be answering?

### 2. How does video conferencing particularly enhance their learning and understanding?

- Could you add to their learning by using other technologies in conjunction with video conferencing - email, for example?
- What are the specific learning outcomes for those who participate in the conference?

### 3. What classroom preparation will you need to do with students in advance so that they get maximum learning benefit from the video conference?

- Do they need to brainstorm questions to ask other students - in which case what makes GOOD questions?

- Do they need to research and prepare materials for students with whom they are conferencing? Can you take this opportunity to teach important research skills?
- Do you need to prepare and send any advanced materials to the students at the far-end? There may be particular value in sending out information, photographs, video footage or PowerPoint presentations about a particular theme in advance so that video conferencing time can be spent in actual DEBATE about the topic under review.

#### **4. During the actual conferencing what specific learning activities will students involved in the conference be doing?**

- Will they be listening to other students talking and making notes on particular aspects of the topic? If so, what recording grids will they be using? Will they concept map what they hear?
- Will they be participating in actual debate about an issue? If so, how will it be organised?
- Will they have their own notes?
- Have they had the opportunity to practise a real debate before the conference? There is a wealth of useful material about active speaking, listening, debating and note taking in the Key Stage 3 National Literacy Strategy 'Literacy across the Curriculum' folder.

#### **5. After the conference what follow up activities will you do with students to consolidate their understanding?**

- What do they do with what they have just learned from other students via conferencing?

Good use of ICT in a subject involves well-planned follow up activities back in class which use the materials obtained via ICT!

## **SPECIAL NEEDS**

### **'Outside in' - inclusion and pupils with a range of abilities**

Video conferencing is a technology that can bring pupils into a classroom when, for a variety of reasons, they are unable to attend class in person.

This concept has for a long time been on the 'wish list' of teachers working to develop a truly inclusive curriculum. The practice of individuals or groups of pupils being able to join mainstream lessons in local schools is already happening in some areas and could be a reality for numbers of pupils around the country isolated from the mainstream classroom through illness, special educational needs or other special circumstances.

Teacher assessment also recognises that pupils with a variety of abilities within mainstream schools will benefit from regular video conferencing activities brought directly to their classroom. Increased pupil motivation has been identified as a major benefit, but research has also demonstrated additional benefits connected with language acquisition and other speaking and listening skills. These skills are transferable, adding value to lessons not directly related to the video conference activity or lesson.

A study of children with special educational needs, by teacher Maria Penicud and speech therapist Karen Bamford in May 2003 at Arbour Vale School, Slough, indicated that video conferencing has the potential to develop communication skills in pupils and increase their enjoyment of lessons.

Using it as one of a range of educational tools will mean developing the appropriate expertise and management of this new technology within a school. The gains made in pupils' clarity of speech, intelligibility, vocabulary size and enjoyment in lessons all point to a need for all involved in education to consider the use of video conferencing in their schools.

The opportunity for collaborative learning between schools is important if schools wish to develop communication skills. Indeed, in Arbour Vale School video conferencing is now also scheduled for use in the post-16 department to develop communication skills and support for the Citizenship curriculum.

*Taken from research developed by Maria Penicud*

Pupils should have access to the full curriculum from their isolation ward, their home, their detention centre or special unit, and video conferencing does offer a solution, enabling children to interact with their peers from a distance.

Teachers and therapists in special units can also experience a sense of isolation from colleagues, which video conferencing can go some way towards relieving. Working with colleagues and sharing experience are vital for professional development. Sharing and developing knowledge, skills and expertise through conference, seminars and in-service training are standard practice. The profession now has an opportunity to develop this interaction and skill sharing beyond the formal gathering, to enable teachers to work in teams and share skills in a way that would not have been possible just a little time ago.



Science	History	Geography	MFL	Art & Design	Design & Tech.	RE	Citizen./PSHE	Music	Other
							KS1		CPD
							FC		
KS1									CPD
KS2									CPD
						KS2	KS2		
		KS3				KS3	KS3		
							KS4		
	(US)						(US)		
		KS3							
KS1-2							KS1-2		
			KS3				KS3		
			KS3						
			KS5						
			KS4-5						
							KS5		KS5 Key Skills, Leisure & Tourism
							KS2&3		KS2&3 Cross-phase links
							KS2/5		KS2&3 Cross-phase links
KS2-3									CPD
			KS2&4						
			KS3-4						
KS2					KS2				
KS1-4									
								Gr. 1	
									KS5 External Tutors
									GCSE Latin
KS2									
KS2									
KS2									
	KS3								
KS2-3	KS2-3						KS2-3		
KS4-5		KS4-5							
KS3									
		KS3							
KS2									
		KS3							
							KS4		
				KS2/4					
						KS3	KS3		

## APPENDIX 2

These are suggestions of some **National Literacy Strategy** objectives which could be enhanced by the use of video conferencing. It is not intended to be an exhaustive list and there are many more opportunities which could be exploited.

	<b>Performance and follow-up</b>	<b>Working collaboratively - comparing and contrasting, discussion and argument</b>	<b>Gaining access to different cultural contexts</b>	<b>Gaining access to experts and research</b>
<b>Year 1</b>	<b>Term 1, T3</b> retelling stories <b>Term 1, T6</b> to recite stories and poems;	<b>Term 1, T5</b> to describe story setting and incidents and relate to own experience and that of others;		
<b>Year 2</b>	<b>Term 1, T6</b> to discuss familiar story themes and link to own experiences; <b>Term 2, T5</b> to discuss story endings;	<b>Term 3, T4</b> to compare books by same author; <b>Term 3, T7</b> to compare books by different authors;		
<b>Year 3</b>	<b>Term 2, T4 and 5</b> prepare poems for performance. Rehearse and improve;	<b>Term 2, T10</b> to write alternative sequels to traditional stories;		
<b>Year 4</b>	<b>Term 1, T5</b> to prepare, read and perform playscripts;	<b>Term 3, T16</b> to read, compare and evaluate examples of arguments and discussions; <b>Term 3, T17</b> how arguments are presented; <b>Term 3, T18</b> investigate persuasive writing; <b>Term 3, T19</b> to evaluate advertisements;	<b>Term 3, T2</b> to read stories from other cultures;	<b>Term 2, T16</b> prepare for factual research; <b>Term 2, T23</b> collect information from a variety of sources;
<b>Year 5</b>	<b>Term 2, T5</b> to perform poems in a variety of ways;	<b>Term 3, T14</b> to select and evaluate a range of texts for persuasiveness; <b>Term 3, T15</b> to collect and investigate use of persuasive devices;	<b>Term 3, T1</b> to investigate a range of texts from different cultures;	
<b>Year 6</b>		<b>Term 1, T3</b> to articulate personal responses to literature; <b>Term 2, T18</b> to construct effective arguments; <b>Term 3, T1</b> to describe and evaluate the style of an individual writer;		

These are suggestions of **Key Stage 3 National Strategy Framework for Teaching English** objectives which could be enhanced by the use of video conferencing. It is not intended to be an exhaustive list and there are many more opportunities which could be exploited - many of the writing objectives, for instance, could be addressed collaboratively.

	<b>Performance and follow-up</b>	<b>Working collaboratively - comparing and contrasting, discussion and argument</b>	<b>Gaining access to different cultural contexts</b>	<b>Gaining access to experts and research</b>
<b>Year 7</b>	<p><b>Understanding the author's craft: 12</b> Character, setting and mood</p> <p><b>Speaking: 2</b> Recount</p>	<p><b>Speaking: 5</b> Put a point of view</p> <p><b>Listening: 6</b> Recall main points</p> <p><b>Group discussion and interaction: 10</b> Report main points</p> <p><b>11</b> Range of roles</p> <p><b>12</b> Exploratory Talk</p> <p><b>13</b> Collaboration</p> <p><b>14</b> Modify views</p> <p><b>Drama: 19</b> Evaluate presentations</p>		
<b>Year 8</b>	<p><b>Speaking: 2</b> Develop recount</p> <p><b>3</b> Formal presentation</p> <p><b>4</b> Commentary</p> <p><b>Listening: 7</b> Listen for a specific purpose</p>	<p><b>Group discussion and interaction: 10</b> Hypothesis and speculation</p> <p><b>Drama: 16</b> Collaborative presentation</p>	<p><b>Study of literary texts: 16</b></p> <p>Cultural context</p>	<p><b>Research and study skills:</b></p> <p><b>1</b> Combine information</p> <p><b>2</b> Independent research</p>
<b>Year 9</b>	<p><b>Speaking: 2</b> Standard English</p> <p><b>Drama: 12</b> Drama techniques</p>	<p><b>Reading for meaning: 7</b></p> <p>Compare texts</p> <p><b>Understanding the author's craft: 9</b> Compare writers from different times</p> <p><b>10</b> Interpretations of text</p> <p><b>12</b> Rhetorical devices</p> <p>Study of literary texts:</p> <p><b>17</b> Compare poets</p> <p><b>18</b> Prose text</p> <p><b>Speaking :3</b> Interview techniques</p> <p><b>Listening: 5</b> Compare points of view</p> <p><b>Group discussion and interaction 9</b> Considered Viewpoint</p> <p><b>10</b> Group organisation</p>	<p><b>Study of literary texts: 16</b></p> <p>Different cultural contexts</p>	<p><b>Research and study skills: 1</b></p> <p>Information retrieval</p>

# APPENDIX 3

<b>KS1</b>	
Unit 1E How do Jewish people express their beliefs in practice?	Interview a Jewish person about Hanukkah - have the hanukkiah lit, see a range of hanukkiot
Unit 1E How do Jewish people express their beliefs in practice?	Invite a Jewish family to set up a Pesach table, explain it and role play part of the meal (e.g. the four questions)
Unit 2D Visiting a place of worship	Arrange for a video conferencing unit to be used in a place of worship not represented in the local community
<b>KS2</b>	
Unit 5B How do Muslims express their beliefs in practice?	Arrange an 'ask the imam' session
Unit 4A How do Hindus worship at home and in the mandir?	Invite a Hindu to demonstrate arti in front of a shrine, sing Bhajans and answer pupil questions
Unit 6F How do people express their faith through the arts?	Link with a gallery or museum to be shown some of their relevant exhibits with a commentary from an expert
<b>KS3</b>	
Unit 7B What does justice mean to Christians?	Interview a Christian Aid representative about their work
Unit 7D Who was Gotama Buddha?	Interview a Buddhist monk at the vihara about the impact of the Buddha
Unit 8D How do the beliefs of Sikhs affect their actions?	Interview a Sikh about the meaning of equality
Unit 8F What makes a gurdwara special?	
<b>KS4</b>	
Arrange a debate with a class in another school on a moral issue as preparation for an examination question	
<b>KS5</b>	
Arrange a sixth form conference on the same day as another school and invite a speaker to address the students	
<b>At all key stages</b>	
Classes studying the same unit show each other their current work, exchange ideas and develop their work. An end of unit quiz based on a TV quiz show could be an interesting summative assessment.	