



Specialist Schools Trust
EXCELLENCE AND DIVERSITY



SUBJECT SPECIALISM CONSULTATION: RESPONSE OF THE SPECIALIST SCHOOLS TRUST – JUNE 2003



Contents

| | |
|--|----|
| Summary statement | 3 |
| The Specialist Schools Trust | 5 |
| The Consultation Process | 11 |
| Generic issues | 12 |
| The role of the Specialist Schools Trust | 16 |
| Subject-specific issues | 19 |
| Annex 1 – Expert Panel Members | 27 |
| Annex 2 – Written responses received | 31 |
| Annex 3 – Information Sources | 32 |

Summary Statement: Subject Specialism and the Work of the Specialist Schools Trust

The thrust of specialisation of secondary schools and of the specialist school initiative is to raise standards by improving the quality of teaching and learning. Within the specialist schools programme the objectives are to raise standards within the specialism, use it as the leading edge for whole school improvement and as a vehicle for cross-curricular working within the specialism. In this way the specialism is more than a subject and the whole school approach is different to a focus only on individual subjects.

Specialist schools have an essential leadership role in carrying out the national programme of support for subjects. Together, the schools in each specialism form a powerful network of excellent practitioners in the specialist subjects who can support teaching regionally and locally, as well as feeding into leading edge thinking at national and international level.

The Specialist Schools Trust enables and supports this role through its subject strategies for each specialism. These provide a strategic overview of how each specialism will be deepened, through:

- support for teaching and learning initiatives such as the KS3 Strategy, London Challenge and 14-19 Pathfinder projects;
- support for schools at all stages of designation, including support for schools in the SSSP programme;
- Best Practitioner Networks;
- working with key strategic partners, for example subject associations in developing a CPD strategy in each specialism;
- collaborative activities such as the Leading Edge programme, Training Schools and federations of specialist schools.

Subject specialism within the specialist schools initiative is not only a catalyst for whole school improvement, but also an opportunity to review the fundamentals of the subjects themselves and the ways in which they can be enriched. This has become very apparent in the work of the expert panels brought together for the newer specialisms.

In our view, the dynamic for moving this work forward has three strands:

- ❖ building extended SUBJECT COMMUNITIES nationally, regionally and locally;
- ❖ organising INFORMATION AND RESOURCES in a more dynamic and responsive way;
- ❖ coherent, accredited, accessible PROFESSIONAL DEVELOPMENT for all the education workforce.

All of these need to be responsive to the changing nature of learning – less classroom-based, more linked to local communities, more collaborative and underpinned by pervasive use of information and communications technology.

The Specialist Schools Trust identifies the following key areas of development of its work in order to meet these objectives:

- ❖ building on the success of the Trust's Expert Panels, further development of **secondary subject communities** at national level for each of the specialist subjects, in association with subject associations and other key partners;
- ❖ continuing to build the Trust's grant-funded **best practitioner networks** to facilitate collaboration between schools at regional level;
- ❖ capitalising on the community strategy of the specialist school initiative, by supporting the development of **local subject communities** which bring together schools, post-16 providers, HEIs, LEAs, businesses, cultural organisations, subject associations and community groups, for example in support of the National Languages Strategy, 14-19 provision and the development of gifted and talented provision;
- ❖ build partnerships with the new Centres of Excellence to develop '**spokes**' **based in specialist schools** to maximise the impact of their regional centres; support specialist schools to become Centres of Excellence;
- ❖ building on the Trust's Schools Network site by extending an **e-learning website** which brings together online resources developed by schools in a way that is easy to access and evaluate;
- ❖ the development of regional **electronic discussion forums** for each subject;
- ❖ extending existing professional development projects to meet the needs of school leaders at every level and **non-teaching staff working in schools** in a variety of contexts, such as musicians and artists, Higher Education and Further Education staff with no experience of teaching pupils pre-16;
- ❖ developing the focus of our professional development to help teachers to make best use of **new opportunities for learning outside the classroom**;
- ❖ build on the Trust's network of regional and local training centres and CPD in ICT in all specialisms, to meet other specialist CPD needs;
- ❖ extend intensive specialist CPD courses which allow practitioners to deepen their own specialism and professionalism.

THE SPECIALIST SCHOOLS TRUST

The Specialist Schools Trust was founded in 1987 and is the registered educational charity which acts as the lead body for the specialist schools programme. The Trust is funded through a combination of government grant, affiliation fees charged to schools, conferences and events charged to schools.

ROLE OF THE SPECIALIST SCHOOLS TRUST

The Trust's role focuses on the following principal areas:

- ❖ Helping schools to achieve specialist status in 10 specialisms with a net increase in the number of specialist schools across all specialisms of at least 300 per year from 2002 to deliver the Government's target of 2000 by 2006;
- ❖ raising sponsorship for specialist schools (including schools in statutory Education Action Zones and EiC Action Zones);
- ❖ helping schools to achieve their improvement targets and retain specialist school status;
- ❖ enabling and supporting a network of like-minded innovative schools; and
- ❖ disseminating innovative and best practice to raise standards.

The Trust has over 100 professional and administrative staff to support schools in these areas.

AFFILIATION

First launched in September 1992, the Specialist Schools Trust Affiliation Scheme now has a membership of over 2000 schools educating over 1 million children.

Full membership, which is available to all secondary and special schools, offers access to national & international networking with schools and colleges, termly area or regional meetings, subject specific support group seminars, publications, conferences and electronic networking groups.

SPECIALIST SCHOOLS

1224 Technology, Language, Arts, Sports, Business & Enterprise, Engineering, Mathematics & Computing, Science Colleges and CTCs have been designated as of June 2003 which are broken down as follows:

| | |
|-------------------------|--|
| Arts | 202 |
| Business & Enterprise | 46 |
| Engineering | 8 |
| Humanities | Commencing operation in September 2004 |
| Languages | 171 |
| Mathematics & Computing | 38 |
| Music | Commencing operation in September 2004 |
| Science | 64 |

PROGRAMMES AND EVENTS MANAGED BY THE SPECIALIST SCHOOLS TRUST

Vision 2020 “Developing Leaders for Tomorrow” Programme

Vision 2020 is the Trust’s “thinking and action tank”. The Policy Group consists of innovative, dynamic headteachers who are looking to transform education. The “Developing Leaders for Tomorrow” programme was launched in September 2002 with the aim of developing the next generation of Specialist School headteachers. It is a three year course for teachers in the first three years of teaching. The “Young Leaders” have the opportunity to meet with and discuss global education ideas with leading national and international educationalists, such as Professor Brian Caldwell of the University of Melbourne. In year 1, the “Young Leader” produces a case study that describes an innovation that they have introduced in their school. In year 2 there is a four week business/industry placement and, in year 3, one week’s international experience.

CPD / ICT Programme

The Specialist Schools Trust is building on the highly successful training delivery model developed during the NOF initiative by establishing a network of CPD centres which will provide opportunities for all schools to participate in training programmes developed “by schools and for schools”. Schools approved to operate as regional or local CPD Centres will be able to offer a wide-ranging programme of courses to meet the training needs of education professionals. At the core of this programme is the subject-specific workshop programme which provides training for teachers and other school staff in the use of ICT to raise standards in teaching and learning. There is a programme of termly regional workshops for the sharing of good practice in the use of ICT in subject teaching in ten subject areas. This programme is supported by a professional development website which hosts a variety of subject-specific resources, together with online communities to enable subject teachers to share experience and effective practice.

The CPD Centres will also support the delivery of the “Developing Young Leaders” programme, governor training, middle manager development for managing the Specialist Schools programme.

Currently, 96 schools have applied to the Trust to become regional training centres and 209 to become local centres. These are spread over all ten subject specialisms.

Annual National Conference for Affiliated Schools

This Conference is for headteachers and senior managers of schools affiliated to the Trust. It is a major benefit of affiliation and enables delegates to hear views of high profile keynote speakers and network with colleagues. This is the largest education conference in the UK. Over 1500 headteachers attended in 2002 and listen to speakers such as Tony Blair, David Bell, Michael Barber, Ted Wragg, Alan November and Brian Caldwell. Professor Caldwell commented:

“I have been to literally hundreds of conferences over the last thirty years and I do believe this is the very best, not only in its organisation and presentation, but especially in the energy and optimism it created among participants.”

Regional Events

The Trust has ten regions serviced by a Regional Co-ordinator. Each region has a Steering Group consisting of headteachers and deputy headteachers from affiliated & specialist schools. Each region offers schools three events/workshops each academic year. The events attract speakers such as Professors David Hargreaves, Tim Brighouse and James Tooley.

Annual National Specialism Conferences

The National Conferences for each specialism are held annually and feature high profile speakers. These unique and dynamic events for affiliated schools provide innovative opportunities for professional development led by practitioners, partner agencies and the teaching world. The conferences enable delegates to share good practice, network with colleagues and learn from each other.

Expert Panels

Since January 2003, the Trust has formalised its expert panels for each of the specialisms. These groups represent key partners in Government agencies, subject associations, higher education, LEAs, businesses, and headteachers of specialist schools. They meet twice a year and on other occasions as necessary. The expert panels for the new specialisms have played a key role in defining the aims and objectives of each specialism, feeding into the guidance published by the DfES.

Best Practitioner Networks

The Trust is establishing ten regional networks in each of the specialisms and dance, and also in the rural dimension, community, gifted and talented, ethnic minority achievement, SEN and inclusion, 14-19 and the school workforce. Leading practitioners (ASTs, Leading Teachers and effective middle leaders) will support school to school partnerships to share good practice across all affiliated schools and have a particular focus on low and underperforming schools.

Advanced Skills Teachers

The Trust is bringing together Advanced Skills Teachers in each specialism in order to strengthen support for the subject. To date meetings have been held for ASTs in science, mathematics and design and technology, and further meetings are planned for the remaining specialisms.

Gifted & Talented

The Trust is working with the National Academy of Gifted & Talented to pilot materials and approaches in particular specialisms. There is currently a dearth of curriculum materials and the Trust's Gifted & Talented Best Practitioner Network will work closely with both the National Academy of Gifted & Talented and GATEA in London.

Links with Higher Education Institutions

The Trust has developed links with Higher Education Institutions as a way of deepening specialisms via exchanges of staff, developing research-based activities for school-based students (e.g. links with Cambridge on CARET, in which schools trial and develop website materials), professional development for teachers, development of materials for gifted and talented students, and very importantly, widening participation. For example, the Trust is working with the London Institute on a range of activities to widen participation including artists in residence, master classes, teacher professional development and material for gifted students.

Currently the Trust has approximately 85 links with individual institutions and approximately 10 links with groups. One example is the Inspire Project which was set up to increase post-doctorate teaching in Science Colleges via a specially adapted GTP route. A similar project involving ITT and Science colleges is being developed in Leeds.

The National Languages Strategy

The Trust is working with Language Colleges and many key partners, including CILT, LEAs, Higher Education institutions, the Association for Language Learning, the Nuffield Foundation and the Black Country 14-19 Pathfinder, to support the National Languages Strategy. It is also supporting affiliated schools that do not specialise in languages to help them to develop motivating courses for learners post-14.

From September 2003, the Trust will offer an enhanced level of support to schools applying for Language College status in order to ensure that the number of applications remains buoyant.

The Trust runs a partnership project in collaboration with the French Ministry of Education linking 60 Language Colleges with schools in France which have sections européennes.

Training Schools

Many specialist schools are also training schools. There is a need to capitalise on both the ITT and CPD potential of very good specialist schools (high value added, Leading Edge status).

Leading Edge Schools

Many of the Leading Edge Schools are specialist schools and their expertise needs to be harnessed. The Trust is already working with many of the schools in Best Practice Networks and school-to-school partnerships.

London Challenge

The Trust is working closely with the Department to ensure that the target of at least 290 specialist schools by 2006 in London is met. A programme is being developed to encourage and support non-specialist schools to gain and retain specialist status.

Innovation

Regional activities are organised by the Trust to fund innovative practice.

Vision 2020 is one arm of the Trust's work in developing innovative practice. In 2003 Vision 2020 is focusing on three areas:

1. Developing the school workforce;
2. 14-19 curriculum; and
3. Design of the Learning Environment.

Each working party will publish a report on the innovative practice in specialist and affiliated schools and hold a dissemination conference. In addition, each region has a fund for developing innovative practice. This work is disseminated at regional events and through the Trust's website. The Best Practitioner Groups in each specialism will also disseminate innovative practice.

Website and Publications

The schools network website was launched on 31 January 2003. Users are able to access information such as case studies of best practice and conference reports. Publications commissioned by the Trust disseminate best practice and more are currently being researched and developed for the newer specialisms.

FURTHER INFORMATION

For further information, please visit our websites at www.specialistschoolstrust.org.uk or www.schoolsnetwork.org.uk or contact the Trust on 020 7802 2300.

THE SPECIALIST SCHOOL TRUST'S RESPONSE TO THE CONSULTATION

THE CONSULTATION PROCESS

The expert panels for Arts, Business & Enterprise, Engineering, Humanities (with separate groups for English, History, Geography and Citizenship), ICT, Languages, Mathematics & Computing, Music and Science held an additional meeting in May / June 2003 in order to discuss the Government's Subject Specialism Consultation document. Members of the Design & Technology panel gave their views by telephone.

In addition, some individual responses were received from panel members and from one of our accredited Consultants. Please refer to Annexes 2 and 3 for the full list of names.

At the meetings, there was a high level of agreement between the expert panel members, and also a notable willingness of the various organisations to work together. The focus on subject specialism was unanimously welcomed.

In addition, the Specialist Schools Trust was represented at thirteen recent DfES consultation meetings to discuss subject specialism.

In drawing up our response, we have taken into account the DfES Core Principles draft document. The Trust has adopted these as the basis for its future work and particularly to guide research activities and the Best Practice Groups.

The first part of our response deals generically with the consultation questions, drawing on the views of all the expert panels and of Specialist Schools Trust's education professionals including Subject Leaders. It includes an overview of how the Trust envisages taking this work forward. The second part summarises some of the subject-specific points raised by each panel. These in many cases provide an illustration of the generic issues.

PART ONE: GENERIC ISSUES

1. How do you view the adequacy of the current sources of subject specialism support?

- 1.1. As the consultation document states, subject specialism support is currently available from a wide range of sources.¹ While most of the support is of high quality, there is a lack of coherence and co-ordination across the system, so that opportunities to maximise its effectiveness are being missed. There are also some clear gaps in provision for particular subjects and scope to extend the forms that professional development can take.
- 1.2. Much more can and must be done to share knowledge, expertise, experiences and ideas between schools, colleges, higher education, businesses and charitable and cultural organisations. The Specialist Schools Trust is increasingly focusing its work on bringing schools together in partnerships and networks, and in brokering cooperation between schools and the many other organisations which have a role in supporting teaching and learning.
- 1.3. We strongly agree about the power of schools' working with the local community to enrich the teaching of specialist subjects; this approach is a key element in the work of specialist schools and has enormous potential for further development. Specialist schools are required to work with their local family of primary schools (normally 5 or 6 schools), at least one secondary school, local business/industry and identified community groups. Many specialist schools also collaborate with higher education institutions, further education and wider groups of secondary schools.
- 1.4. Despite the high quality of much support, there are a number of limiting factors about which there was wide agreement among panel members:
 - ❖ lack of consistency between different subjects in the amount of support available;
 - ❖ a decline in LEA advisory support;
 - ❖ schools' increasing difficulty in releasing teachers to attend courses;
 - ❖ declining membership of subject associations, and declining participation in training provided by subject associations;
 - ❖ the uneven spread of subject associations across different curriculum areas and the wide variation in their activities;
 - ❖ a decline in the offer and take-up of opportunities such as Schoolteacher Fellowships at universities and residential courses;
 - ❖ a tendency for schools to release teachers only for what they see as 'essential' events, related to examination syllabuses or Government initiatives;

¹ One omission from the extensive list of sources of support in the consultation document are development education organisations and other charities, such as Oxfam and the Development Education Association, many of which fulfil similar functions to the subject association

- ❖ no common framework for assessing and accrediting professional development with clear progression routes;
- ❖ the fact that professional development is not yet centrally positioned in schools' agendas;
- ❖ insufficient accountability to ensure that teachers have equality of access to professional development;
- ❖ a perception that the pressures of results-driven assessment have reduced teachers' ability and inclination to pursue their specialist subject in ways that feed back into creativity in the classroom.

1.5. The consultation document does not examine subject specialism in relation to initial teacher training. It was felt that key experiences relating to the specialist subject have been squeezed out of the training programme by the need to meet national standards. Specialist Schools, particularly those which are Training Schools or Leading Edge are well placed to support both ITT and CPD in specialisms.

1.6. It was disappointing to find that several subjects have not been included in the list of ministerial responsibilities on page 18 of the document. These include key elements in the specialist schools initiative such as business and enterprise and dance, drama and media arts.

2. How best can we further enhance subject specialism, and are there different approaches needed for different subjects?

2.1. A flexible curriculum

2.1.1. Imaginative and passionate teaching can flourish only with sufficient flexibility in the curriculum and in assessment. There are particular concerns about Key Stages 4 and 5, where examination syllabuses have become a conservative force, whereas thirty years ago they were one of the drivers of innovation. The 'backwash' effects of syllabuses and methods of assessment on learning styles need careful analysis.

2.1.2. Our panels were united in welcoming the hybrid GCSE, and would like to see concerted action to develop alternative pathways and courses in the 14-19 phase, including new vocational courses especially in the humanities subjects. Further Education colleges, although not mentioned in the consultation document, should be part of this development, with a specific role for Centres of Vocational Excellence.

2.1.3. A flexible curriculum is also one which is enriched by links with other subject areas. It is essential that subjects are not 'put into separate pockets'. This is one of the key strengths of the specialist schools initiative, which requires different subjects to work together within a single 'specialism'; for example, maths and ICT are both required specialist subjects within business and enterprise and need to be linked into a coherent overall plan. A similar concept works at whole school level for all the specialisms, as they explore how the specialist subject area can

enhance and raise standards across the whole curriculum. There is also exciting work going on bringing subjects together through the overarching themes of citizenship, enterprise, internationalism, the use of technology, inclusion, business and the community.

- 2.1.4. We fully support the emphasis on developing stimulating partnerships with those outside the teaching profession. We see this as a key part of the agenda for transforming secondary education, and believe that, through their community programmes, specialist schools are particularly well-placed to develop these kinds of partnerships and to disseminate good practice. The move towards learning taking place increasingly outside the classroom is very challenging for schools and for individual teachers, and there will be a need for carefully focused professional development for all involved.

2.2. Assessed professional development

- 2.2.1. We believe it is essential that professional development should be part of a coherent programme that is both assessed and accredited, in collaboration with universities.
- 2.2.2. Assessed professional development should be seen as part of the normal development of each teacher's career and possibly in the longer term a requirement for retention of teacher status, along the lines of the 'expectation' in place in Scotland. For example, it should be possible to accumulate credits that lead to a subject-specific masters' degree in education.
- 2.2.3. 'One-off' courses should gradually be replaced with a more embedded approach in which conferences are part of a wider programme.
- 2.2.4. This approach should incorporate a wider range of types of professional learning, including work-shadowing within a partnership of schools, team teaching, the development of teaching and learning materials; and teaching placements in universities, colleges, and the education departments of cultural organisations.

2.3. The scope of professional development

- 2.3.1. The development of subject specialist expertise should not be limited to subject teachers. It should be available to a wide range of stakeholders including external agencies that work with schools and the whole school community including governors, parents, sixth form mentors, learning assistants, technicians and other members of the school workforce.
- 2.3.2. The development of subject knowledge should be related to pedagogic and 'school' knowledge to ensure that teachers are able to relate their learning to their classroom practice and understand how to implement change.

- 2.3.3. To enable teachers to deepen and enrich their subject knowledge, there should be more opportunities such as schoolteacher fellowships, courses abroad for language teachers, residential courses with wider reading at teachers' own level, and opportunities for teachers and pupils to work with practising artists, writers and poets.
- 2.3.4. Professional placements should be reciprocal, with relevant individuals taking up residencies in schools as well as teacher placements in other organisations.
- 2.3.5. To ensure good progress in Key Stage 3, primary-secondary cross-phase work is essential.
- 2.3.6. We fully support the proposal to enable schools to appoint more Advanced Skills Teachers, and see them as having a key role in supporting subject specialism. If changes are introduced to enable a more even spread of ASTs across the system, it will be important to ensure that the posts of existing ASTs can be maintained.

2.4. A national structure of subject support

- 2.4.1. We welcome the proposed Centres of Excellence for Science and Mathematics. However, we prefer the concept of 'Centres **for** Excellence': the latter expresses the notion that all involved are together seeking excellence, not that excellence is in 'given' to a particular organisation. If a Centre of Excellence is for any reason less than excellent in one or more respects, it lays itself open to ridicule.
- 2.4.2. Whether or not there are formally established centres for excellence, there is a need for a structure of national, regional and local support for all subjects.
- 2.4.3. Many subject associations may wish to be a part of this structure, along with universities, LEAs and others. However, subject associations would wish to maintain their independence so that they can speak freely and openly. Some of our panel members representing subject associations pointed out that many are not in a position to take on an extensive professional development or publishing role.
- 2.4.4. One of the important functions of the centres for excellence will be the dissemination of good practice. This has not always been very effective in the past, and there is a need to develop methods of dissemination that are more proactive and interactive.

3. The role of the Specialist Schools Trust

The Trust will take forward its role in supporting and co-ordinating the work of specialist schools in their support for subject specialism. The key to the success of this strategy lies in bringing together a wide range of partners nationally and locally and in bringing schools together. In order to achieve this, we will draw particularly on the expertise of Advanced Skills Teachers.

3.1. The three strands we have identified to inform our role are:

- ❖ building extended SUBJECT COMMUNITIES nationally, regionally and locally as powerhouses for subject support;
- ❖ organising INFORMATION AND RESOURCES in a more dynamic and responsive way;
- ❖ coherent, accredited, accessible PROFESSIONAL DEVELOPMENT for all the education workforce.

3.2. All of these need to be responsive to the changing nature of learning – less classroom-based, more linked to local communities, more collaborative and underpinned by pervasive use of information and communications technology.

3.3. Building subject communities

3.3.1. **At national level**, we intend to strengthen the subject communities through the ongoing work of our expert panels. The panels bring together key partners from all phases of education relating to each subject area, together with representatives from industry, subject associations, cultural organisations, NGOs and other relevant organisations. Each panel takes an overview of the professional development and curriculum needs of its subject area, going back to first principles if necessary, and through its expertise raises awareness of the most recent developments in the subject in the academic and business worlds, including an international perspective. The panels have an important co-ordinating role, identifying gaps in provision and facilitating collaboration between agencies. They would work closely with the national Centre for Excellence.

3.3.2. **At regional level**, we will continue to build our grant-funded best practitioner networks covering each specialist subject and key themes within the transforming secondary education agenda. The networks will be able to respond flexibly to the needs of their particular subject or focus, and will allow us to pilot a variety of models to develop and share successful practice between schools.

3.3.3. **At local level**, specialist schools will further develop their role as sources of subject expertise within their local community. Our most successful specialist schools are well placed to become centres for excellence, acting as ‘spokes’ of the regional centres to deliver training to schools in their locality, working in collaboration with higher education. They will also be key players in wider local subject communities.

- 3.3.4. We believe that there is potential for a very exciting and powerful development of **local subject communities**. These would bring together all the education providers at all phases, LEAs, businesses, cultural organisations, subject associations and community groups that have an interest in a particular subject area. In History for example, such a group could include local museums, a stately home, the archaeological society, public library, FE Colleges, university, local history society, a designated specialist History College within the new humanities specialism, the LEA adviser, history departments in the secondary schools and a primary school history co-ordinator from each primary cluster. This group could function as a local powerhouse for promoting and supporting the subject.
- 3.3.5. Specialist schools are already developing many different and imaginative models of support at local level through school-to-school collaborative partnerships. For example, a group of four Technology Colleges could form a federation, each taking responsibility for developing a particular aspect of teaching and learning and sharing emerging practice.

3.4. Information and Resources

- 3.4.1 If teachers are to be well supported in relation to their subject specialism, it is essential that up to date, high quality information and resources should be easily accessible and adaptable to the teacher's exact need.
- 3.4.2 There are large and growing quantities of teaching and learning resources on school and other websites. These have been created for a range of purposes and audiences and there is a wide variation in quality. It is a major challenge to ensure that the best resources are readily available to teachers and learners and that they are able to judge their appropriateness.
- 3.4.3 The Trust has considerable experience of supporting teachers' use of ICT through its programme of ICT training, which includes an online resource for teachers, "Online Support". Building on this work as part of its new Professional Development Services programme, the Trust has online teaching resources for geography, mathematics and science, and will be extending this to all subject areas. (The website can be accessed on www.schoolsnetwork.org.uk/pds.)
- 3.4.4 We see considerable potential to build on this work in order to host a more comprehensive e-learning website. This site would
- ❖ bring together high quality resources for each specialist subject, and for cross-curricular work;
 - ❖ arrange resources so that teachers and learners can readily find what they are seeking;
 - ❖ provide guidance about the use of the resources in the classroom.

- 3.4.5 In order to be most effective, the website would be closely linked to the Best Practitioner Networks, the training and support role of specialist schools and to our other professional development work.
- 3.4.6 In order to facilitate effective collaboration between teachers, we will also develop regional discussion forums for each subject to enable teachers to share ideas.

3.5. Professional Development

Building on the highly successful training delivery model the Trust developed during NCF, a network of regional and local CPD centres will be in place by Autumn 2003. The Trust will extend its professional development work in key areas:

- developing School Leaders at all levels in Specialist Schools;
- ICT in all specialisms;
- intensive courses/seminars to deepen development of teachers as specialists as well as teachers of specialisms;
- the range and styles of professional development to meet more closely the needs of the individual teacher and the school;
- development activities to include non-teaching staff and others working in schools, such as musicians and artists, Higher Education and Further Education staff with no experience of teaching pupils pre-16;
- the focus of our professional development to help teachers to make best use of new opportunities for learning outside the classroom; and
- working with Higher Education to develop appropriate and flexible forms of accreditation.

PART TWO: SUBJECT SPECIFIC ISSUES

ARTS

The Trust is very proactive in working with a range of key partners to bring more coherence nationally and regionally to support specialist Arts schools. Thus partnerships include The Arts Council regional road shows, Creative Partnership events, KS3 Arts curriculum, QCA creativity project, Royal Opera House project and the National Dance Network, a grant funded network jointly facilitated by the Youth Sports Trust and the Specialist Schools Trust.

To build the Arts subject Strategy, regional Arts college networks have been set up in all regions in collaboration with the Arts Council for England. We intend to build support from the Trust for individual subjects as well for the arts collaboratively.

The Arts expert panel identified the following issues:

1. The support available for individual subjects within the arts is uneven. In particular, there is limited support for media arts, which lacks a subject association and any dedicated initial teacher training
2. The fact that the arts are multi-stranded makes subject support more complex. There should be support to develop the individual subjects of music, art, drama, dance and media, but it is also important to develop the arts collaboratively as a specialism.
3. The DfES ministerial responsibilities for individual subjects does not include dance, drama or media arts.
4. For the arts, an organisation that is halfway between a subject association and a centre of excellence would be valuable. One of its aims would be the dissemination of information and resources, and raising awareness of opportunities within the arts, both major projects and successful practical ideas.
5. Teachers need help in measuring progress in the arts, and in creativity and cultural development.
6. There is a need for accredited training for non-qualified teaching and ancillary staff, e.g. visiting arts staff and media technicians.

BUSINESS AND ENTERPRISE

The Trust is working on joint projects with a range of expert enterprise groups to enhance enterprise in all specialist schools and particularly in Business & Enterprise Colleges, to deliver its subject strategy. These projects include KS3 curriculum delivery, Enterprise pathfinder projects and the development of vocational courses.

The Business & Enterprise expert panel identified the following issues:

1. Business and Enterprise is an aspirational subject that promotes an entrepreneurial approach, skills development and particular attitudes – including risk-taking and dealing with failure. It is broader than Business. It is unhelpful for these to be referred to as ‘soft skills’.
2. Business and Enterprise is missing from the allocation of ministerial responsibilities given in the consultation document. Work-related learning is not the same.
3. The Specialist Schools Trust has an important role in helping to bring industry into the classroom, for example by providing an online database of providers and in developing and disseminating good practice.
4. The Trust could develop a role in training and supporting sponsor governors of specialist schools. Business associations should encourage people to act as governors through the Trust.

DESIGN AND TECHNOLOGY

To deliver the subject strategy for Design and Technology the Trust is working with DfES and others to prepare and pilot KS3 materials, especially design skills as well as contributing to the national subject strategy.

The Design and Technology expert panel identified the following issues:

1. Design and Technology suffers from being made up of several different focus areas. There is a need for D & T departments to establish a joint vision of the subject across these focus areas.
2. Teachers trained as ‘handicraft’ teachers need particular professional development in order to develop their understanding of design within Design and Technology. The KS3 strategy pilot from this Autumn should help to address this issue.
3. There was strong agreement on the need for a network of regional centres to deliver professional development in Design and Technology.
4. Staff recruitment of teachers of Design and Technology is of real concern, especially in London and the south east. This is a key issue that must be addressed in taking forward enhancement of the subject.

ENGINEERING

Engineering Colleges are the first national initiative to focus on the teaching of engineering in schools. The subject strategy for engineering will facilitate discussion and dissemination about the fundamentals of engineering in the school context.

The Engineering expert panel identified the following issues:

1. There is no subject association for engineering, and the level of membership would be unlikely to make one viable. The Specialist Schools Trust has a useful role in

providing a forum for key partners to come together. Engineering Colleges working together should develop a national network to support the subject.

2. Should teachers be brought into an integrated SET (Science – Engineering – Technology) community?
3. The adequacy of subject knowledge is crucial in engineering, which requires skills and knowledge in technology, science, maths and ICT. Applied to classroom practice, it can only be developed through teachers working together.
4. The Trust is supporting research and publications of best practice in Engineering which will be issued in 2003/04

ENGLISH

The English expert panel identified the following issues:

1. The over-bureaucratic demands of assessment in recent years have got in the way of teachers' reading and love of their subject, and of innovation and creativity. Teaching styles have been narrowed through the backwash effect of teaching to the test at KS3 and KS4.
2. Opportunities for teachers to take up personally enriching types of professional development have been severely curtailed by funding constraints. It would be enormously valuable if funding could be made available so that teachers can be released to take up, for example, university Schoolteacher Fellowships; residential courses involving wider reading at their own level (like HMI courses prior to 1981); and poets, childrens' writers and academic speakers contributing in school.
3. Innovation in the curriculum should be supported, for example through hybrid GCSEs; language and literature study post-16; new ways of exploiting ICT and other technologies; media studies.
4. The Trust nominated two teachers to attend the Prince of Wales Education Summer School for Teachers of English and History, which gives Subject leaders the opportunity to meet together with leading academics to debate from first principles what should be the essential elements of English Literature and History in schools. The Trust applauds this approach and is keen to support and develop similar work to strengthen subject leaders' professional development.

HISTORY

The History expert panel identified the following issues:

1. The panel would like to see a National Centre for Excellence in Humanities with regional outbases, enabling cross-pollination between different disciplines within the humanities family. The regional centres could be based in specialist humanities colleges and be linked to universities.

2. The current history curriculum is flexible at key stage 3 but restricted at key stages 4 and 5 because of the demands of GCSE. The specialist schools should trailblaze new approaches in key stages 4 and 5, bringing greater flexibility and innovation in collaboration with the awarding bodies, QCA and DfES. Examples could include the reintroduction of mediaeval history, hybrid GCSEs, applied history, history in action, and history around us. In view of the importance of the heritage industry within the British economy, the development of vocational history courses is overdue.
3. The history curriculum needs to respond more effectively to multiculturalism and internationalism. For example, the rise and fall of the British Empire is not dealt with well, and multiculturalism is restricted in schools to a citizenship context.
4. There are important professional development needs in key stage 3, when pupils are most likely to be taught History by non-specialists, despite the importance of this key stage as a seed-bed for further study.
5. The community aspect of specialist school status opens up superb opportunities for history teaching. Teachers will need to acquire skills relating to local archives, oral history in the community and local archaeology.
6. The Trust was invited to participate in an Ministerial Seminar on reforming the provision of Museum & Galleries Education. The Trust proposed that its Best Practitioner Groups could be linked to more coherent regional provision. The Trust is working with DfES and DCMS on these issues.

CITIZENSHIP

The Citizenship expert panel identified the following issues:

1. Further work is needed to raise awareness of citizenship as a means of transforming schools and of achieving school improvement. It is important that it is not overshadowed within humanities specialist schools by history, geography and English.
2. There is a danger that the place of citizenship in the curriculum may be diminished by more established subjects. The fact that schools have substantial freedom in how they teach citizenship makes it attractive, but there is a need for greater awareness of its potential.
3. Citizenship must involve an active pedagogy; because it is a “new subject” it is at a very different stage of development compared to others, and will need considerable support.

GEOGRAPHY

The Geography expert panel identified the following issues:

1. There is a need to revive the work on geography in primary schools which has been suspended because of recent national curriculum developments. The new Humanities Colleges could have an important role in this.
2. Geography is an excellent example of a subject can link with and use the resources in the local community. Specialist schools should be instrumental in building up a subject community to include all organisations that could make a contribution: local community groups, subject associations, the LEA, HEIs and organisations with an international dimension.
3. School managers may have a perception that geography is static. The goal nationally should be to show that there are lots of ways of 'doing geography'; for example, the theme of sustainable development or citizenship could unify a school's scheme of work . A school teaching the subject in a mono-cultural background could share their perspective with schools in other environments.
4. There are many curriculum themes that cross all the humanities subjects.

ICT

The ICT expert panel identified the following issues:

1. It is essential to consider the two distinctive strands of ICT:
 - a. for all, across the curriculum;
 - b. as a specialist subject with examinations and a future employment focus.
2. ICT teachers have a very demanding role in school; must be able to deliver skills, teach ICT as a subject and support teachers of other subjects in relation to ICT. They also need regular updating in a subject which has a high rate of change.
3. There is a need for further research and case studies on how digital content and software is used and integrated into subject lessons, and how it works to improve teaching and learning.
4. The monitoring and assessment of teachers' subject capability in ICT is more difficult than in many other subjects. This is an area that needs addressing in depth.

LANGUAGES

Language Colleges have a crucial role in supporting the National Languages Strategy. The changed status of languages in Key Stage 4 gives this role even greater urgency. The Trust is receiving worrying information about the downgrading of language provision in schools, not only in Key Stage 4 but even in Key Stage 3.

In order to meet the need to support languages nationally, the Trust is actively seeking ways of increasing the number of schools applying for Language College status. In our view a significant number of new Language Colleges is needed to ensure the strategy's success.

Language Colleges are already leading innovation in language teaching and learning, accelerated learning, the use of ICT, international networking, primary language teaching, videoconferencing, work-related learning, and content and language integrated teaching. They are significant providers of professional development to schools within their LEA and further afield. Many are helping to deliver training for the Key Stage 3 Modern Languages framework.

In addition, the Languages expert panel identified the following issues:

1. The mapping of language provision at district level is helpful, including not only the languages and types of course available, but also translators and interpreters, and industries which use language skills. Language professionals such as interpreters have been overlooked but may be willing to offer placements or come into schools.
2. E-learning can support collaboration between providers, and the diversification of provision. There is a skills deficit in relation to e-learning at school level, despite much international work in this field and growing expertise in Higher Education.
3. Professional development needs relate to:
 - a. refreshing or extending language capability, eg. through courses abroad;
 - b. research into subject-specific as well as generic pedagogical issues, eg. through research scholarships;
 - c. cultural and political knowledge, eg. through Teacher Fellowships;
 - d. support for native speakers recruited for their linguistic knowledge rather than teaching ability;
 - e. training for classroom assistants in line with the workforce reform agenda.

MATHEMATICS AND COMPUTING

There is a rapid increase in the number of Mathematics and Computing specialist schools: from an initial 12 starting in September 2002, there are likely to be 83 by September 2003. The Specialist Schools Trust has also held 16 regional training days last term on the use of ICT in mathematics, hosted by specialist schools with input by practising teachers.

The Mathematics and Computing expert panel identified the following issues:

1. Mathematics has a number of disparate subject associations which speak with different voices. The National Centre of Excellence in Mathematics is a welcome move which will for the first time create a national forum to bring large numbers of teachers of mathematics together.

2. It would be helpful to promote stronger links with industry and HE institutions, encourage teachers in Maths and Computing Colleges to train as ASTs, and to develop high quality careers advice in relation to mathematics.
3. There is scope for maths teachers to enrich their practice through collaboration with teachers of maths in other schools and with teachers of other subjects. Morale is low in many schools: curriculum time given to maths is not always sufficient, the shortage of maths teachers is putting pressure on colleagues and too many teachers have insufficient subject knowledge.

MUSIC

1. The trust is sending a separate response to David Milliband, Minister of State for Education on how the Trust can contribute to the development of a national music strategy. Clearly the emergence of specialist Music colleges from 2004 onwards will have a significant impact on provision. A copy of the Trust's response to the Minister will also be sent to the Curriculum Division.

The Music expert panel identified the following issues:

1. The list of cultural organisations in the consultation document should be widened to include music-related venues.
2. It is difficult for music teachers to access professional development, and the level of support is variable in different LEAs. Membership of subject associations is low.
3. There are particular recruitment difficulties in Music, with too many hourly paid, transitory instrumental teachers.
4. The group supported the development of cross-phase federations of schools coming together to provide joint resources and teams of experts.
5. Teacher training is crucial, and a clearer strategy is needed in relation to the role of LEAs.

THE RURAL DIMENSION

1. The rural dimension as a 'subject' manifests itself within a wide range of other subjects. Key focuses are farming, animal health and welfare, forestry, fisheries, building, environmental stewardship, leisure and tourism, transport, rural crafts, natural and cultural heritage.
2. This dimension relates strongly to learning styles as well as subject content, for example use of the 'outdoor classroom'.

The rural dimension expert panel identified the following issues:

1. There is a need for a framework to bring together the diverse range of available resources for teachers.

2. There is no single subject association for the rural dimension. The proposed National Strategic Partnership for Countryside Education would bring together the key organisations.
3. It would be helpful if some schools could become 'champions' of the rural dimension.
4. There is an important role for the Specialist Schools Trust in raising awareness, producing a best practice publication and providing a helpline for enquiries.

SCIENCE

The Science expert panel identified the following issues:

1. Science education is a strong community with a highly regarded subject association. LEA support is patchy although the KS3 strategy is working well. The quality of CPD is variable and is difficult to assess. Accredited technician courses run by CLEAPSE and ASE are not always viable. Technician training should be separate from that for administrative support staff, and could be most effective when teachers and technicians work together. There is a need for coherence.
2. The National Network of Science Learning Centres is a very positive development. ASE, the Royal Institutes and Royal Society are likely to use the network. The centres could also work with the LSC to provide science education for adults.
3. The impact of the Learning Centres on individual schools might be limited because of the number of teacher days they are able to offer. The Specialist Schools Trust therefore hopes to support a 'satellite centre' system operating from the regions in line with their current activities. The Trust is also likely to use national and regional centres as venues for events.
4. The cost to a school of using the National Centre would be high in terms of travel, accommodation and supply cover. The delegation of funds to schools will be welcomed by headteachers, but there is a danger that money previously used for CPD might be diverted if budgets are tight. If there is a requirement to use a proportion of school funding on CPD, how could this be policed?
5. The Specialist Schools Trust's network of support and school partnerships are of great value. The Trust could further support the specialism by:
 - a. helping to identify a 'science ambassador' for each science specialist school;
 - b. continuing to visit schools to identify good practice – e.g. where could you find good teaching of genetics?
 - c. mobilising the wealth of expertise available through the national science AST workforce.

ANNEX 1

EXPERT PANEL MEMBERS AS AT JUNE 2003

| EXPERT PANEL | NAME | ORGANISATION | |
|--------------|----------|--------------|---|
| Arts | Norinne | Betjemann | The Arts Council of England |
| Arts | Will | Bridge | The London Institute |
| Arts | Val | Bryce | DfES - Specialist Schools Unit |
| Arts | Lesley | Clarke | DfES - Specialist Schools Unit |
| Arts | John | Conlon | Creative Partnerships |
| Arts | Marie | Costigan | DfES Curriculum Division |
| Arts | Jeff | Dawkins | Windsor Boys' School |
| Arts | Mark | Done | Specialist Schools Trust |
| Arts | David | Fitzgerald | Department for Culture, Media & Sport |
| Arts | Susanna | Fone | The London Institute |
| Arts | Valerie | Hannon | DfES - Innovation Unit |
| Arts | Deborah | Khan | Specialist Schools Trust |
| Arts | Lesley | King | Stantonbury Campus |
| Arts | Tony | Knight | QCA |
| Arts | Janie | Orr | Music Sound Foundation |
| Arts | Mark | Reid | The British Film Institute |
| B & E | Steve | Alcock | National Foundation for Teaching Entrepreneurship (UK) |
| B & E | Jacek | Brant | Education, Economics and Business Education Association |
| B & E | Sue | Braybrook | Specialist Schools Trust |
| B & E | David | Butler | Ofsted |
| B & E | Jane | Delfino | Whalley Range 11-18 High School |
| B & E | Kathy | Heaps | John Kelly Girls' Technology College |
| B & E | Jenny | Lambert | businessdynamics |
| B & E | Anna | Lemmon | QCA |
| B & E | Sarah | Maclean | DfES Curriculum Division |
| B & E | Sue | Pentland | DfES Curriculum Division |
| B & E | Mary | Richardson | HSBC Education Trust |
| B & E | Jocelyn | Shaw | DfES - Specialist Schools Unit |
| B & E | Kevin | Steele | Enterprise Insight |
| B & E | Lorraine | Thomas | HSBC Education Trust |
| B & E | Peter | Thompson | Business in the Community (Representing CBI) |
| B & E | Nancy | Wall | Economics and Business Education Association |
| B & E | Peter | Westgarth | Young Enterprise (UK) |
| D & T | Debbie | Bratton | DfES - Specialist Schools Unit |
| D & T | Colm | Carty | DfES - Curriculum Division |
| D & T | Kevin | Jones | Specialist Schools Trust |
| D & T | Jenny | Jupe | The Design & Technology Association |
| D & T | Peter | Mitchell | Thomas Alleyne's High School |
| D & T | James | O'Neill | Carmel RC Technology College |
| D & T | Ray | Peacock | Setnet |
| D & T | Ken | Shooter | Ofsted |
| D & T | Julia | Thomas | The Design Council |
| D & T | Richard | Tufnell | Middlesex University |
| D & T | Ian | Williams | QCA |
| Engineering | David | Barlex | Nuffield Design & Technology Projects |
| Engineering | John | Berkeley | SENTA |
| Engineering | Dick | Croft | Amicus-AEEU |
| Engineering | Ken | Fulton | Rolls Royce |
| Engineering | Kevin | Jones | Specialist Schools Trust |
| Engineering | Tim | Lewis | Sheffield Hallam University |
| Engineering | Barry | McGregor | Specialist Schools Trust |

| EXPERT PANEL | NAME | ORGANISATION |
|---------------------|----------------------|---|
| Engineering | Saad Medhat | Engineering and Technology Board |
| Engineering | Ted Middlemas | Eckington School |
| Engineering | Catherine Mortimer | Engineering and Technology Board |
| Engineering | Chris Rogan | BAE Systems |
| Engineering | Sue Sambridge | DfES - Specialist Schools Unit |
| Engineering | Janet Waters | Specialist Schools Trust |
| Engineering | Ruth Wright | Engineering Council |
| Humanities | Susan Acland-Hood | DFES |
| Humanities | Marian Agombar | NASACRE-National Association of Standing Advisory Councils for RE |
| Humanities | K.O. Ajegbo | Deptford Green School |
| Humanities | Adrian Barlow | Chair of Examiners-OCR |
| Humanities | Clive Barnett | Ofsted |
| Humanities | David Barrs | The Association for Citizenship Teaching(ACT)/Anglo European School |
| Humanities | Vivienne Baumfield | School of Education, Communication and Language Sciences |
| Humanities | Doug Bourn | Development Education Association |
| Humanities | Susan Braybrook | Specialist Schools Trust |
| Humanities | Jonathon Breckton | Royal Geographic Society |
| Humanities | Tony Breslin | Citizenship Foundation |
| Humanities | Ian Brinton | The English Association |
| Humanities | Mariea Christodoulou | Humanities Association/Tideway School |
| Humanities | Christopher Culpin | The Schools History Project |
| Humanities | Janet Dallas | DFES |
| Humanities | Jane Delfino | Whalley Range School |
| Humanities | Henrietta Dombey | The United Kingdom Reading Association |
| Humanities | Linda Doyle | Specialist Schools Trust |
| Humanities | John Flinn | Specialist Schools Trust |
| Humanities | Sue Gallagher | Specialist Schools Trust |
| Humanities | Steve Gallaher | Foxhills School Technology College |
| Humanities | Rita Gardner | Royal Geographic Society |
| Humanities | Brian Gates | The RE Council |
| Humanities | Chris Gayford | Reading University/Executive Committee of Council for Environmental Education |
| Humanities | Vincent Gillespie | University of Oxford |
| Humanities | Ben Greene | Uplands Community College |
| Humanities | Julie Grove | Association of RE Advisers, Inspectors and Consultants |
| Humanities | Peter Hayes | CSV Education for Citizenship |
| Humanities | Don Henson | Council for British Archaeology |
| Humanities | Barbara Hibbert | Humanities Association/Harrogate Grammar School |
| Humanities | Anne Hudson | Deptford Green School |
| Humanities | Leszek Iwaskow | HMI |
| Humanities | Leszek Iwaskow | Ofsted |
| Humanities | Mike Johns | Portsmouth LEA/ Humanities Association |
| Humanities | David Lambert | Geographical Association |
| Humanities | David Leat | Newcastle University Development School of Education |
| Humanities | Helen Lucas | The English Association |
| Humanities | Trevor Millum | National Association for the Teaching of English |
| Humanities | Jon Nichol | School of Education and Life Long Learning |
| Humanities | Will Ord | The Association for Citizenship Teaching (ACT) |
| Humanities | Will Ord | Association for Citizenship Teaching |
| Humanities | Eleanor Rawling | QCA |
| Humanities | Martin Roberts | Historical Association |
| Humanities | Mike Scott | Specialist Schools Trust |
| Humanities | Steve Sharp | Duke of Edinburgh Award Scheme |
| Humanities | Deirdre Smith | Humanities Association |
| Humanities | Dave Walker | Humanities Association |
| Humanities | David Walmsley | Jeff Joseph Sale Moor Technology College |
| Humanities | Janet Waters | Specialist Schools Trust |
| Humanities | Mike Webb | Specialist Schools Trust |

| EXPERT PANEL | NAME | ORGANISATION |
|---------------------|---------------------|---|
| Humanities | Deborah Weston | The Professional Council for Religious Education |
| Humanities | Alan White | Manor College of Technology |
| Humanities | Kathy Wicksteed | Specialist Schools Trust |
| Humanities | Nick Williams | BRIT School of Performing Arts and Technology |
| Humanities | Andrew Wright | The Association of University Lecturers in RE |
| ICT | Steve Bacon | National Association of Advisers for Computer Education |
| ICT | Ray Barker | British Education Suppliers Association |
| ICT | Doug Brown | DfES |
| ICT | Ken Dyson | Ofsted |
| ICT | Gabriel Goldstein | Consultant |
| ICT | Muriel Gray | ACITT |
| ICT | Paul Hynes | King Edward VII School |
| ICT | Clare Johnson | KS3 ICT Strategy |
| ICT | Niel McLean | BECTA |
| ICT | Richard Millwood | Ultralab |
| ICT | Orla Ni Chorcora | Oracle Corporation UK Ltd |
| ICT | Tony Parkin | Specialist Schools Trust |
| ICT | Michelle Selinger | Cisco Systems |
| ICT | Clare Tibbitts | 3Com Europe Ltd |
| ICT | Stephen Uden | Microsoft UK Ltd |
| ICT | Helen Walker | BECTA |
| ICT | Ken Walsh | King Edward VII School |
| ICT | Mary Webb | King's College London |
| ICT | Michael Wood | Cornwallis Technology College |
| ICT | Stirling Wood | QCA |
| Languages | Peter Boaks | CILT |
| Languages | David Boyd | DfES - Curriculum Division |
| Languages | Ann Burgess | The British Council |
| Languages | Michael Carding | Bishop Heber Community School |
| Languages | Alan Dobson | |
| Languages | Hilary Footitt | University Council for Modern Languages |
| Languages | Kate Green | QCA |
| Languages | Ian Hill | Ofsted |
| Languages | Lid King | Centre for Information on Language Teaching |
| Languages | Terry Lamb | University of Sheffield |
| Languages | Jean-Paul Martin | The French Embassy |
| Languages | Christopher Maynard | QCA |
| Languages | Bill Musk | Association for Language Learning |
| Languages | Bob Reed | Anglo European School |
| Languages | Kit Thorne | National Association of Language Advisers |
| Languages | Kathy Wicksteed | Specialist Schools Trust |
| Languages | Amanda Woodham | DfES - Specialist Schools Unit |
| M & C | Jack Abramsky | QCA |
| M & C | Mundher Adhami | King's College London |
| M & C | Chris Belsom | ACME |
| M & C | Michael Blaylock | Ofsted |
| M & C | Zoe Chomicz | DfES - Specialist Schools Unit |
| M & C | Graham Corbyn | Specialist Schools Trust |
| M & C | Janet Dallas | DFES |
| M & C | Graham Lloyd | Holly Hall School |
| M & C | Adrian Oldknow | The Mathematical Association |
| M & C | Jennie Piggott | Cambridge University |
| M & C | Roger Porkess | Representing Gatsby |
| M & C | Charlie Stripp | Representing Gatsby |
| M & C | Maggie Wilson | The King John School |
| Music | John Booth | Roland UK Ltd |
| Music | David Carter | Cirencester Deer Park School |

| EXPERT PANEL | NAME | ORGANISATION |
|---------------------|--------------------|---|
| Music | Christina Coker | Youth Music |
| Music | Helen Coll | National Association of Music Educators(NAME) |
| Music | Marie Costigan | DFES |
| Music | Leonora Davies | Music Education Council |
| Music | Mark Done | Specialist Schools Trust |
| Music | David Fitzgerald | DCMS |
| Music | Keith Hewson | Eggescliffe |
| Music | Richard Hickman | Federation of Music Services |
| Music | Clive Kempton | Ofsted |
| Music | Hommy Khosrowpanah | The Richard Haas Partners Company |
| Music | Tony Knight | QCA |
| Music | Roger Lewis | Music and Dance Scheme Advisory Group |
| Music | Rosemary Lury | Specialist Schools Trust |
| Music | Paul McManus | Music Industry Association |
| Music | Janie Orr | Music Sound Foundation |
| Music | Maxwell Pryce | The Schools Music Association |
| Music | Paul Reeve | Royal Opera House |
| Music | Janet Waters | Specialist Schools Trust |
| Music | Frankie Williams | Education Inspectorate |
| Rural | Marie Boyd-Clarke | Specialist Schools Trust |
| Rural | Karen Brown | QCA |
| Rural | Martha Critchlow | Growing Schools |
| Rural | Mike Goodfellow | Countryside Foundation |
| Rural | Bill Graham | Farming and Countryside Education |
| Rural | Helen Hart | Lantra |
| Rural | Leszek Iwaskow | Ofsted |
| Rural | Mike Smith | Lantra |
| Rural | Mike Tones | County Durham |
| Rural | Janet Waters | Specialist Schools Trust |
| Science | Jenny Baker | DfES - Curriculum Division |
| Science | Derek Bell | The Association for Science Education |
| Science | Gail Cardew | The Royal Institution of Great Britain |
| Science | Halina Field | DfES - Specialist Schools Unit |
| Science | Richard Hammond | BECTA |
| Science | John Holman | UYSEG, University of York |
| Science | Wilf Hudson | DfES - Standards Unit |
| Science | Andrew Hunt | The Nuffield Curriculum Centre |
| Science | Sally Johnson | King's College |
| Science | Michael Kalvis | DfES - Standards Unit |
| Science | David MacKay | QCA |
| Science | Ken Mannion | Sheffield Hallam University |
| Science | Adrian Percival | Matthew Arnold School |
| Science | Bob Ponchaud | Ofsted |
| Science | Rachid R'Kaina | Gatsby |
| Science | Kay Roberts | GlaxoSmithKline |
| Science | Tony Sherborne | Sheffield Hallam University |
| Science | Heather Sillitoe | Specialist Schools Trust |
| Science | Sue Sissling | Harrow LEA |
| Science | Denise Smullen | Specialist Schools Trust |
| Science | Nigel Thomas | The Royal Society |
| Science | Derek Wise | Cramlington Community High School |
| Science/Arts | Gareth Binns | NESTA |

ANNEX 2

WRITTEN RESPONSES RECEIVED FROM EXPERT PANEL MEMBERS

| EXPERT PANEL | NAME | ORGANISATION |
|---------------------|----------------|---|
| Engineering | Ken Fulton | Rolls Royce |
| Humanities | Chris Culpin | The Schools History Project |
| Humanities | David Lambert | Geographical Association |
| ICT | Ray Barker | British Education Suppliers Association |
| Science | David MacKay | QCA |
| Science | Peter Nicolson | University of York |

ANNEX 3

INFORMATION SOURCES

- DfES Standards website (www.standards.dfes.gov.uk);
- Specialist Schools Trust websites (www.specialistschoolstrust.org.uk and www.schoolsnetwork.org.uk); and
- Specialist Schools Trust Corporate Plan for 2003/2004 – 2005/2006.