

Learning: creative approaches that raise standards

This survey evaluates and illustrates how 44 schools used creative approaches to learning. These schools had aspirations for their pupils to ask questions independently, make connections between ideas, think creatively, challenge and participate effectively, and reflect on their learning. The report also evaluates the impact on pupils' achievement and personal development. All the schools selected for the survey had been judged good or outstanding in their most recent inspection in terms of their pupils' enjoyment of learning, their preparation for future economic well-being and the curriculum.

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Contents

Executive summary	4
Key findings	5
Recommendations	6
A national agenda	7
Creativity – a working definition	7
The school experience	8
Design for creative learning: the curriculum	8
Creative learning: higher standards	13
Creative learning: personal development	21
Creative learning: effective teaching	22
Technical skills to support creative learning	27
Creative approaches to learning and assessment	29
Managing the process	32
External resources and support	37
National initiatives to promote creative learning in science, technology, engineering and mathematics	37
Creative Partnerships	40
Notes	44
Further information	45
Ofsted publications	45
Publications by others	45
Annex A. Schools visited for this survey	47
Primary	47
Secondary	48
Special	48
Annex B. National organisations and education trusts that contributed to the survey	49

Executive summary

This survey evaluates how 44 schools used creative approaches to learning that encouraged pupils to be questioning, imaginative and open to possibilities, and to reflect critically on the effect of ideas and actions.

Inspectors visited two nursery schools, 22 primary schools, 19 secondary schools and a special school. Additional evidence was drawn from visits to over 180 other schools, as part of Ofsted's programme of subject survey inspections. The schools selected for the survey represented a broad geographical and socio-economic range. All had been judged good or outstanding in respect of pupils' enjoyment of learning, pupils' preparation for future economic well-being and the curriculum in their most recent school inspection, since enjoyment, achievement and relevance are important elements in learning that raise standards.

Almost all these schools were making effective use of creative approaches to learning. Most of the teachers felt confident in encouraging pupils to make connections across traditional boundaries, speculate constructively, maintain an open mind while exploring a wide range of options, and reflect critically on ideas and outcomes. This had a perceptible and positive impact on pupils' personal development, and on their preparation for life beyond school.

Good examples of creative styles of learning were embedded successfully within the National Curriculum, both through the presentation of individual subjects and through cross-curricular approaches. The secondary schools visited were also taking advantage of the recent ending of national tests for Key Stage 3, and recent changes to the National Curriculum allowing greater flexibility in Years 7 to 9, to extend opportunities for creative and interactive approaches to learning.

Assessment plays an important role in creative approaches to learning. Assessment that is used to encourage, guide and evaluate creative learning was highlighted as a priority in our survey visits, even where it was not yet embedded consistently in practice. Such strategies are also characteristic of effective teaching more generally.

Confident leaders set out a whole-school agenda to disseminate and embed creative approaches to learning. Their persuasive commitment led to well directed professional development for staff, high expectations, rigorous monitoring of outcomes for pupils, discriminating use of partnerships, engagement with the local community and cost-effective investment in technology and teaching resources.

Schools in challenging circumstances – those with a higher than average proportion of pupils eligible for free schools meals, low attainment on entry and high rates of pupil mobility – showed the greatest improvements in: pupils' ability to draw discerningly on a range of data and work collaboratively to solve problems; their reading and writing; their speaking and listening; and their personal development.

In some of the most effective teaching and learning seen, open-ended questioning encouraged independent thinking. Teachers succinctly set out the territory to be explored and ensured that the learning objectives were kept clearly in view, while encouraging pupils to make decisions about which avenues to investigate and to reflect on the progress made. Pupils responded enthusiastically and, in most cases, productively to opportunities to work collaboratively, to make choices and to present their work for review by teachers and their peers. Teachers' lack of confidence in working creatively and an anxiety about how such an approach would help them to meet targets characterised the few instances seen of less effective teaching and learning.

The survey also considered the work of a selection of government-funded agencies and educational foundations. Of the 44 schools visited, 10 of the secondary schools and eight of the primary schools were working with the Creative Partnerships programme.¹ There was often active and, on the whole, productive support from a range of government-funded agencies and education foundations. Many of these had a particular commitment to promoting investigation, invention and evaluation across science, technology, engineering and mathematics. The survey found examples of well-targeted support for projects, using practitioners such as artists and engineers, both in and out of the classroom, to extend pupils' opportunities for creative learning.

Key findings

- In schools with good teaching, there is not a conflict between the National Curriculum, national standards in core subjects and creative approaches to learning. In the schools which were visited for this survey, careful planning had ensured that the prescribed curriculum content for each subject was covered within a broad and flexible framework and key skills were developed. These examples were accompanied by better than average achievement and standards or a marked upward trend.
- Pupils who were supported by good teaching that encouraged questioning, debate, experimentation, presentation and critical reflection enjoyed the challenge and had a sense of personal achievement. The confidence they gained encouraged them to develop and present their own ideas with greater imagination and fluency. Approaches developed successfully in traditionally 'creative' subjects, such as the arts and English, were often incorporated into other areas, such as science and mathematics.
- Inspectors found that the term 'creativity' was subject to a variety of interpretations and applications. Teachers were seen to promote creative learning most purposefully and effectively when encouraging pupils to question and

¹ The Creative Partnerships programme is delivered by the organisation Creativity, Culture and Education (CCE).

challenge, make connections and see relationships, speculate, keep options open while pursuing a line of enquiry, and reflect critically on ideas, actions and results.

- In a small number of the schools visited, pupils' personal development as creative learners was not matched by their progress in core academic skills such as literacy and numeracy. This happened where curriculum planning was not sufficiently well-rooted in the content and skills of the National Curriculum. The acquisition of basic skills remains of fundamental importance.
- Pupils made little progress when the outcomes expected were insufficiently challenging and when they received insufficient guidance. Occasionally, teachers failed to grasp that creative learning was not simply a question of allowing pupils to follow their interests; careful planning was needed for enquiry, debate, speculation, experimentation, review and presentation to be productive.
- The effective promotion of creative learning depended on the quality of leadership and management and on teachers' subject knowledge being secure and extensive enough to support pupils' enquiry, independent thinking and debate.
- Good professional development within the school was a key factor in helping teachers to encourage and assess creative approaches to learning and improve their subject knowledge. Externally produced resources and short training courses had limited impact without local training and continuing in-school support.
- Whole-school commitment to developing and using technology habitually also enhanced pupils' confidence and engagement.
- Ways of recording and evaluating pupils' development as learners, rather than their attainment at the end of a unit or a key stage, were not generally well-developed or embedded beyond the Early Years Foundation Stage.
- Partnerships that were planned to complement schools' mainstream curriculum made a positive contribution to pupils' learning and personal development.
- Ofsted's short survey in 2006 of the Creative Partnerships programme had a significant and positive impact on the way in which schools are now selected and their participation managed and evaluated.²

Recommendations

The Department for Children, Schools and Families should:

- put in place guidance and support to promote the implementation of recommendations made by the National Council for Educational Excellence for the further development of partnerships between higher education, business and schools.

² *Creative Partnerships: initiative and impact* (HMI 2517), Ofsted, 2006; www.ofsted.gov.uk/publications/2517.

All schools should:

- from the Early Years Foundation Stage onwards, ensure that pupils are actively encouraged to ask questions, hypothesise and share their ideas, and that these skills extend into their writing
- in curriculum planning, balance opportunities for creative ways of learning with secure coverage of National Curriculum subjects and skills
- provide continuing professional development to ensure that teachers and support staff have the knowledge, skills and confidence to encourage pupils to be independent and creative learners, and to monitor and assess the effectiveness with which they develop these capabilities
- ensure that all pupils develop skills in technology to support independent and creative learning
- support and sustain partnerships that have the potential to develop pupils of all abilities as confident and creative learners.

A national agenda

1. This report discusses how priorities set by the Government and initiatives supported by educational foundations and government-funded agencies have had an impact on schools' promotion of creative learning and on the outcomes for pupils of the *Every Child Matters* agenda. The survey also reviewed evidence about the lasting impact of partnerships on what the House of Commons Education and Skills Committee described in May 2007 as the 'softer' skills, such as team-working.
2. The Committee proposed that Ofsted should evaluate how widely and well lessons from activities traditionally thought of as 'creative' had been embedded across the whole curriculum, following recommendations Ofsted made in 2006.³ The Committee asked whether the National Curriculum, particularly for primary schools, was too narrowly prescriptive and expressed concern about the lack of new methods for assessing progress and attainment in creativity.

Creativity – a working definition

3. The survey found that the term 'creativity' was widely used in the schools surveyed but there were variations in what was meant, ranging from an innate attribute to an approach and set of skills that could be cultivated. All the schools initially offered examples of 'creativity' in subjects commonly thought of

³ *Creative Partnerships: initiative and impact* (HMI 2517), Ofsted, 2006; www.ofsted.gov.uk/publications/2517.

as intrinsically creative, such as the visual and performing arts. However, when inspectors asked about 'creative ways of learning', examples were offered from most subjects across the curriculum. Teachers and senior leaders most confidently identified and evaluated creativity as an aspect of learning when it was translated into specific activities such as those set out by the Qualifications and Curriculum Authority's (QCA) publication *Creativity: find it, promote it*, rather than expressed as an abstract idea.⁴ Creative learning was widely understood to be characterised by:

- questioning and challenging
- making connections and seeing relationships
- envisaging what might be
- exploring ideas, keeping options open
- reflecting critically on ideas, actions and outcomes.

The school experience

Design for creative learning: the curriculum

4. Schools in this survey provided good evidence of how curriculum development could promote pupils' creative learning as an enhancement of the National Curriculum rather than as an alternative to it. Of the 22 primary schools visited, 15 were outstanding in developing a curriculum that promoted creative learning, eight were good and one was satisfactory. In the secondary schools, the profile of judgements was similar: 10 of the 19 schools were outstanding in this respect, eight were good and one was satisfactory.
5. Curriculum provision in the schools visited which promoted creative learning most effectively had common strengths in addition to a good basic coverage of the requirements of the National Curriculum. Although the following are common aspects of any good curriculum, this particular combination supported creative learning very successfully:
 - well-organised cross-curricular links that allowed scope for independent enquiry
 - inclusiveness, ensuring that it was accessible and relevant to all pupils
 - a focus on experiential learning, with knowledge, understanding and skills developed through first-hand, practical experience and evaluation
 - well-integrated use of technology
 - effective preparation of pupils for the next stage of their learning, training or employment

⁴ *Creativity: find it, promote it* (QCA/05/1596), Qualifications and Curriculum Authority, 2005.

- a broad and accessible enrichment programme
- clear and well-supported links with the local community and cultures, often drawing on local knowledge and experience to enhance pupils' learning
- a flexible approach to timetabling to accommodate extended, whole-school or whole-year activities
- partnerships that extended pupils' opportunities for creative learning.

From this came high levels of enjoyment by both staff and pupils.

6. Effective curriculum planning involved subject and phase leaders and teachers with a particular interest in cross-curricular approaches. Topics were explored in multi-disciplinary ways, while not losing touch with the content, skills and assessment targets of the National Curriculum. All but one of the primary schools visited were increasing opportunities for cross-curricular working, most of all in the nursery settings and infant schools. All the 22 primary schools retained distinctive literacy and daily mathematics sessions for all year groups. In 18 of these schools, English and mathematics were linked explicitly to other subjects. In all the schools visited, the survey found evidence of the positive impact of such cross-curricular approaches on pupils' attainment and personal development.
7. Only three of the 22 primary schools found any difficulty in integrating the Primary National Strategy's frameworks into their planning for creative learning. The frameworks supported creative approaches effectively in most of the primary schools, as the following example demonstrates.

In the frame

The new Primary National Strategy frameworks, particularly for mathematics, had reinforced the school's approach to curriculum planning and confirmed that its approach, with sensible cross-curricular themes, was effective. Mathematics units had problem-solving as an integral element, with plenty of practical examples that lent themselves to cross-curricular work. This encouraged a flexible use of time, allowing for detailed exploration of a topic and providing continuity of learning for pupils.

8. In the primary schools where creative learning was outstanding, developing pupils' skills was a curriculum priority and progress was evaluated regularly. Curriculum planning took National Curriculum content as the medium through which creative approaches to learning were put into practice and skills were developed progressively. Pupils' motivation was reinforced by their awareness of their development, for example by tracing their progress on the rungs of a skills ladder and frequently checking their level through peer-review after presenting their work to the class. A primary school example of this approach illustrates its strengths.

Learning journeys

The curriculum is built round a sequence of learning journeys for each year group. The scope and focus of each journey are mapped centrally. This enables the leadership team and subject leaders to check that the National Curriculum is fully covered and that pupils have opportunities to grasp the essential features of each subject, as well as to make connections between them. Each learning journey involves several subjects. 'Jungle Smoothies' for Year 5, for example, draws on social and physical geography, science, technology of different kinds, mathematics and English.

Every journey begins with a 'Wow!' event, some as ambitious as a trip to York to explore Viking influences. Pupils explain that the 'Wow!' is to 'get you inspired and make you want to know more.' Pupils are clear about the breadth of learning involved. 'In between the Wow and the outcome, you don't just have a block of one thing, you do different things to fit – like literacy, numeracy and ICT.'

The intended outcome for each journey is clear at the start – perhaps a presentation to parents or an exhibition or a performance – which establishes specific parameters and priorities. At the end of every journey, pupils evaluate the experience in terms of the skills they have acquired or improved and the knowledge and understanding they have gained.

9. The 'learning journey' gave pupils a sense of distance travelled. Pupils understood that a topic dipped into in one year could be re-explored very profitably two or three years later, when their ability to question, investigate and analyse had matured.
10. In the schools visited, successful curriculum initiatives in all phases provided pupils and students with stimulating and often unexpected situations. They were encouraged to think more divergently, reflect on their findings, pose questions, hypothesise and apply their learning.

Learning from the unexpected

Another primary school also begins all its projects with an experience designed to surprise and excite. Pupils speculate about what they might find but are always surprised at what they actually experience.

A visit to an RAF base inspired amazement first and questions second. Pupils had expected that jets would be noisy but, 'Wow! They made my body shake.' 'I did not expect to fly but I did – in a simulator, anyway!'

The school found that the learning was much greater if pupils had had a real and memorable experience to build on, to question and to evaluate.

11. Opportunities for individual enquiry, speculation, construction and evaluation extended throughout the most effective secondary schools in the survey. There were examples of enterprising and effective curriculum provision where secondary schools had responded positively to the ending of Key Stage 3 national tests and the greater flexibility offered in Years 7 to 9 within the National Curriculum. Allowing pupils to explore ideas through a creative process of trial, error and revision generally proved more time-consuming than firmly teacher-directed activities; however, schools found solutions. The survey noted a variety of approaches.
12. About half the schools opted for a relatively traditional curriculum provided through discrete subject teaching for most of the year, suspended periodically for extended cross-curricular project work. Others were developing a one-, two- or three-term, extended cross-curricular programme, generally in Years 7 and 8. Even when explicitly cross-curricular projects had been programmed for a particular point in the year, their positive impact was evident in students' subsequent learning. Such projects had a positive influence on the way students tackled other work, encouraging them to make apposite and productive connections across subjects and to draw on a range of approaches.
13. Cross-curricular projects contributed to developing a broad range of skills needed for later success, including the ability to work both independently and collaboratively. The most successful primary and secondary schools in the survey monitored cross-curricular initiatives closely to ensure that the distinctiveness of individual subjects was not diminished. The experience of one high-achieving secondary school was typical in this respect.

Something for everyone

The school introduced a cross-curricular programme in Key Stage 3, with the normal timetable suspended for a week's coordinated exploration of a topic such as 'Space Rocket'. As one Year 9 student pointed out, 'There's something for everyone.'

At the end of each activity, students completed a questionnaire, assessing their own learning and their contribution to the performance of the group as a whole.

A Year 7 'Fashion Week' was timed to coincide with London Fashion Week. Students explored aspects of fashion through music, technology, mathematics and science. Portfolios of work and students' commentary on this cross-curricular project showed a very high quality of planning, questioning, experimentation, making of connections and divergent thinking. It was clear that the approaches developed percolated through students' work at other times.

14. Ensuring that creative learning positively promoted inclusion was a key priority in curriculum design for the primary and secondary schools visited. The survey

found good and outstanding examples of curriculum planning that encompassed the needs and the priorities of pupils from minority ethnic groups, of those with widely differing abilities and aspirations, and of those with special educational needs and/or disabilities. In the schools with a high proportion of pupils learning English as an additional language, a strong practical element in the curriculum supported these pupils well and helped them to come to terms with the new language, for example through role play and practical problem-solving. Where it was clear that boys were not making progress in writing, schools engaged their interest and developed their skills through computer software that encouraged enquiry and prompted written responses. Where pupils found elements of the core curriculum difficult, developing a creative link between subjects proved highly effective. One of the secondary schools, for example, used drumming techniques, rhythmic patterns and time signatures to highlight number relationships in mathematics.

Counting the beats

Two mathematics teachers and a drummer worked with a class of Year 8 girls who were struggling to get a firm grasp of multiplication tables. At the start, the lead teacher – a mathematician – outlined the session’s focus and learning objectives: to reinforce students’ grasp of multiplication tables and develop team skills.

The class experimented with rhythms through whole-class clapping, taking 6 then 7 then 8 as the base unit for creating patterns. The students agreed that this gave them a ‘feel’ for the base units. They then moved into groups, with drums. Each group took a different multiplication table and worked on a drumming routine to accompany the chanting of the table. All were engaged, listening closely to each other, correcting any mistakes, collaborating over the development of the initial rhythmic pattern to carry the theme through the entire multiplication table.

The end products were recorded and pupils then evaluated them. They were able to explain the purpose and impact of this activity. It had extended their understanding of pattern and structure, strengthened their recall of multiplication tables and been hugely enjoyable.

15. All the schools ensured that pupils across the ability range, including those with special educational needs and/or difficulties, benefited from mainstream curriculum provision as well as from the enrichment programmes. The following shows how it worked well in one of the secondary schools.

All included

The centre, which includes severely autistic pupils and pupils with Down's syndrome, approached all its teaching and learning through termly cross-curricular themes, each one ending with a public performance or celebration of achievement. At the time of the survey, they were performing a version of the Robin Hood story, so had been studying medieval England, covering topics ranging from the place of the church in society and the use of herbs as medicines, as well as measuring up, cutting out and decorating all the props for the play.

All the pupils had made a specific and personal contribution to the success of the final presentation. For those with difficulties in communicating or in establishing positive relationships, involvement in the project had been challenging but their sense of achievement was huge.

16. All the schools visited had developed imaginative enrichment programmes. In each case, there was a balance between on-site, subject-related activities, such as science and computer clubs, and experiences away from the classroom such as expeditions, visits overseas and participation in local or national arts events. The impact of these enrichment programmes on the outcomes of the *Every Child Matters* agenda was particularly striking. The pupils clearly enjoyed them, but they also responded very positively to community-based projects such as upgrading a local playground or painting a mural on a previously unlovely underpass. Pupils were emphatic that they benefited from being able to make choices, to push their personal boundaries without fear of failure and to make a difference within their school and local community.

Creative learning: higher standards

17. The survey schools which had been judged to be outstanding identified a number of factors which had contributed to their development. However, in all the schools visited, one particularly important factor was their confidence that the aims and objectives of creative approaches to learning were worth pursuing. Primary and secondary pupils were emphatic in supporting such approaches. The following responses from primary school pupils were typical.

'In my learning, sometimes it's good to work independently – but sometimes we talk things through with talk partners and this helps us learn.'

'We combine lessons a lot here, like literacy and drama – it helps us make connections.'

'We get to THINK about things!'

'Projects include all sorts of subjects so you have to use your brain more!'

This was echoed by students in the secondary schools visited: 'We are given the freedom to explore ideas and are encouraged to go as far as possible.'

18. Pupils' enthusiasm and sense of achievement were shared by almost all staff in the schools visited. In the four primary and four secondary schools where any concern was expressed about creative approaches to learning being a successful preparation for external assessments or where pupils' achievement was not in fact enhanced, this reflected teachers' lack of confidence in their ability to combine the two effectively or their limited skills in developing pupils' ability to question, speculate, solve problems and evaluate what they had done. The following examples illustrate the point. The first is from a primary school and the second from a secondary school.

A number of year groups had inexperienced staff who did not make the most of enjoyable activities to develop pupils' skills in enquiry, decision-making, inventive problem-solving and self-evaluation. Pupils were, for example, clearly enjoying designing a time machine so they could travel back to meet the Egyptians for their topic work. The impact of this potentially very good activity was limited because the teacher failed to promote any higher order thinking. Pupils were not encouraged to evaluate each other's ideas and opportunities were missed to make connections with mathematics and science, even though there were clear opportunities to do so.

Although teachers asked a good variety of questions, opportunities for *pupils* to ask questions were limited. In one less successful lesson, pupils were asked to be creative in suggesting improvement to 'a' school rather than to their own on another known school. Here the theoretical nature of the task failed to motivate learners. The lack of choice given about their individual contribution to the activity compounded the problem, with pupils unclear about why they had been allocated a particular task.

19. The secondary schools in the survey ranged from those which exercised academic selection to those whose pupils arrived with low levels of prior attainment, often from disadvantaged backgrounds and in the early stages of learning English. The decision to invest time and resources in promoting creative learning was not taken lightly and they monitored the impact systematically.
20. A greater emphasis on pupils' independence as creative learners did not imply any lessening of rigour; challenging topics were explored in creative ways. For example, a sixth form group investigated the law of diminishing returns, using people and tennis balls. The students were able to explain how they had analysed the concept collaboratively, worked out how to put their understanding to the test, organised themselves through the activity, evaluated

the outcome, refined the activity and, finally, presented their conclusions. They could explain what they now understood about the topic that they had not understood at the start and were emphatic about the benefits of this creative approach to learning.

21. For most schools in this survey with a wide ability range, a focus on creative learning was driven by the need to break down barriers to learning and improve achievement. In all cases, the survey found that this was effective. The emphasis placed by staff on learning being a collaborative business, founded on investigation and first hand experience, encouraged pupils to feel safe in contributing their ideas, being inventive, making connections and experimenting with practical approaches to problem-solving. Reviewing their learning constructively with their peers became an accepted and unthreatening part of the process. Pupils across the range of ability and from different social and cultural backgrounds responded positively, as illustrated in these notes made by an inspector during the survey.

Making learning personal

The creative and open-ended way that teachers approached learning meant that all pupils felt they could succeed. This was particularly apparent when teachers made it clear that there was no single right answer. There were examples of a positive link between good practice in one area and pupils' progress in another. When pupils were responding to a painting by Paul Klee, for instance, all knew that their contributions would be given serious consideration by the teacher and other pupils. This encouragement to share, review and develop their ideas strengthened the confidence and extended the range of expression with which pupils then tackled their writing.

Those with special educational needs and/or disabilities benefited because they were able to excel in aspects other than literacy and numeracy and, from that base, they tackled the core skills more confidently. For example, a pupil with dyslexia was very observant in a scientific experiment and very confident in explaining what was happening. She persevered more purposefully later with the task of writing down what she had seen.

Pupils in the early stages of learning English responded well to practical opportunities for learning, when visual approaches and kinaesthetic skills were encouraged to compensate for any lack of understanding of the language. These pupils felt they were included and capable of succeeding.

22. The schools in challenging circumstances which positively promoted creative learning demonstrated particularly marked improvement in pupils' achievement. Expectations were high and, in almost every case, pupils of all abilities were challenged successfully. It was well understood that trial and error aided learning.

23. The following example, from an inner-city primary school, illustrates how a creative approach to learning engaged families whose circumstances had made them hard to reach. The parents came to see the results of an extended project that had required their children to make connections across disciplines and collaborate on practical ways to explore and present ideas. Imaginative timetabling, a focus on learning creatively, and an insistence on high quality were some of the reasons for success.

Making it happen

A parent attending a family learning session said, 'Most people don't leave this estate – it's hard to get off.' Raising aspirations as well as making sure pupils achieved in all subjects were key priorities for the leadership team and the staff.

The pupils, many living in challenging circumstances, performed Shakespeare's *Macbeth* to an invited audience of family, friends and local dignitaries. Not only did they take on difficult acting parts but also helped to produce the costumes and to design and build the set. In all the activities, they worked alongside expert professionals.

Their success and achievements were celebrated and recorded in artwork created in the style of the artist Gustav Klimt. All this was brought together by older pupils, once again working with an expert. They combined and manipulated numerous photographic images, using an advanced software package. The images of *Macbeth* were finally drawn together as a story board.

The finished work was of a very high quality. The pupils showed a remarkable ability to select images from a variety of sources, discuss style and lighting effects, and manipulate the artwork using the sophisticated software.

The impact of these creative opportunities was clear in the pupils' personal development. They were confident and had positive attitudes – a 'can do' approach – unconcerned that occasionally things might go wrong. Older pupils acknowledged that they were fortunate to attend the school. A member of the school council commented to inspectors: 'Not every school's as good as this, you know.' They readily accepted that only the best would do. Staff set the standard by providing a learning environment of the highest quality.

24. In the secondary schools visited, the survey found similarly persuasive examples of the positive impact of creative learning on students' motivation, progress and attainment. With this rather different approach, many students with previously low attainment and disaffection gained confidence and then competence in working towards accreditation to prepare them for future employment, as the following case study exemplifies.

Creativity breeds success

In a city secondary school, the attainment of students on entry was well below the national average and the number with a learning difficulty was higher than expected nationally. There was a steadily growing diversity of cultural background with over 50 different home languages. The school's challenge was to find ways in which to engage students, build on their strengths and give them the knowledge, skills, confidence and perseverance they needed to meet National Curriculum requirements. For example, feedback from pupils and evidence of the work produced showed the positive impact of a dramatic approach to science, with the staging of a crime scene in the gymnasium leading to a challenging programme of forensic enquiry. In addition, pupils who had entered the English education system in their early teens, with limited experience of primary education and with the challenge of working in an acquired language, found that translating some aspects of chemistry, such as bonding, into dance diminished their nervousness and developed their understanding.

During the survey visit, observations of lessons and scrutiny of the students' work confirmed that creative styles of learning kept them focused on tasks, interested and eager to succeed in all subjects across the curriculum. The students explained that being offered a variety of approaches, including access to information and communication technology (ICT), meant that they did not give up when they encountered a problem. Their portfolios of work and success in attaining high grades in applied GCSE and Business and Technology Education Council (BTEC) courses showed that they responded particularly well to scope for collaborative work, experimentation and self-expression in subjects such as film studies, graphics, dance and drama. Success in these areas went hand in hand with their improved attainment in core subjects.

Younger students' motivation was strengthened by seeing older students building on success at school to progress to further education, training or employment, notably in the creative industries.

25. The Early Learning Goals within the Foundation Stage Curriculum Guidance clearly states that creativity is fundamental to successful learning. In all the primary schools, including the two nursery schools, the survey found evidence of improved standards and strong personal development when pupils were encouraged to:
- develop their understanding by questioning what had been presented to them
 - imagine what might be
 - make connections
 - present their ideas to their peers for review.
26. The following example of creative learning seen in a Reception class illustrates the points made above.

An interesting opening

The whole-school topic was based on a painting, 'The Castle of Muiden in Winter' (1658) by Jan Beerstraten. It became the focus for drama, role play and oral story-telling.

In an outstanding drama lesson with a Reception class, the teacher skilfully led the children as they created their own stories and re-enacted a scene based on the picture. The children's language developed as they became caught up in the 'doom and gloom', words they used themselves, associated with a dark, threatening castle in a winter scene. The activity gave them great scope to invent their own script, improvise scenes and, following the oral story-telling techniques they had learnt, to introduce a clear structure to the story they were creating.

As the children recorded their experiences, they turned to their writing as a natural follow-on from the stimulating experiences the role play had initiated. The structures for their stories, many presented diagrammatically with connecting arrows, showed how much they had gained from the lesson and how maturely they had considered the task. The teacher had ensured that pupils felt that their views and opinions were valued. The purpose of the written task was clear to everyone. One pupil pointed out: 'I'm writing an interesting opening for my story but, if I don't make it exciting enough, no-one will read on.'

Working imaginatively stimulated the children's confidence in their ability to express themselves in whatever form they chose.

27. Eight of the 22 primary schools in the survey were successfully extending key elements of the Early Years framework and approach into Year 1. The regular, structured teaching of phonics gave a firm base for more innovative approaches. These schools established short, focused, discrete periods of

phonics teaching in the daily programme, often to smaller groups of children of similar abilities. The sounds being learnt and any phonically irregular words being taught at that time were reinforced through creative activities when the children were encouraged to make connections and construct stories through play.

28. This combination of relatively formal, teacher-led learning and more independent exploration and discovery ensured that, very early on, pupils learnt how to connect the latter with the necessary knowledge and skills. This increased the pupils' confidence in their speaking, reading and writing. In an infant school, for example, standards in Year 2 consistently exceeded the national average. The teachers identified the creative approaches to speaking and listening, involving imaginative role play, as a key component in how well pupils improved their skills in conversation. The teachers also provided evidence of how the pupils' language development fed into their improved confidence in writing, as in this example.

A good story

In a nursery school, the children took on roles from *Jack and the Beanstalk*, a story they knew well. They had a firm grasp of the storyline and most of them were able to express the point of view of the character they were pretending to be, showing imagination and sometimes humour in presenting motives and actions. They enjoyed taking on a role and were beginning to develop the skill of expressing different viewpoints. Their growing confidence in using new words was seen later in their written vocabulary.

Teachers were confident to follow the children's interests, putting a major emphasis on dialogue. This was developing the children's speaking and listening skills and had a very positive impact on their writing.

29. All the secondary and primary schools visited provided effective examples of pupils asking questions, speculating, making connections and reflecting on their learning, as in the following physics lesson in a girls' school.

Challenging science

During a Year 10 lesson, the teacher set a physics investigation about radiation into a dramatic and, at the time, very topical context – the benefits and the dangers of radiation. It exercised the girls' scientific understanding and required collaborative problem-solving. Working in small groups, the girls were to choose an element to work with, decide the state of the material to be used and work out how to transport and, possibly, administer the material without harming themselves or the general public. Their discussions were lively, imaginative and purposeful, with the teacher ensuring that melodrama did not get in the way of

rigorous science while still encouraging the pupils to be both inventive and persuasive in their narratives.

Each group presented its plan to the others for evaluation. The quality of debate was very high. The students showed a sound understanding of the science involved, challenging and often improving on each other's ideas. They also tackled the moral, political and social implications of the context. Among these was whether scientists should be held accountable for ways in which others later used their research and development work. The discussion was still in full flow as the girls left the classroom for their next lesson.

Such an approach successfully engaged girls in science and it also interested them in practical citizenship.

30. In another school, a Year 8 citizenship class explored a complicated network of political, social and ethical issues, considering political models and their implications for living in a community.

A study in democracy

The headteacher – complete with kilt – took on the role of the laird of a Scottish island. The students adopted the role of islanders who wanted to develop a degree of democracy within their community. They looked at different models and how each might work on their imagined island. They had to draw up rules and laws for the community and agree how to monitor their implementation.

As well as working collaboratively, the students were given individual responsibilities that required them to make choices with consequences for the whole community. They had to justify their choices to the others and be accountable for them.

The students evaluated the project at the end and decided how they could have done things differently, given what they had learnt from the exercise. As they worked through this activity, there was clear evidence of the approaches and skills associated with creative learning. They questioned and speculated, made connections between initiatives and their sometimes unintended consequences, were willing to adapt their thinking when a line of argument proved unproductive and, finally, reflected critically on their response to the challenge.

The activity was clearly enjoyed by all those taking part, including the headteacher.

31. In both these instances, the opportunities for creative learning were directly linked to content and skills in the National Curriculum, and promoted pupils' progress.

Creative learning: personal development

32. Pupils' confidence, sense of purpose and pride in achievement were very evident in all the schools visited. Inspectors' discussions revealed that, in the schools which deliberately set out to encourage independence, adaptability, imagination and curiosity, most of the pupils had very positive attitudes to learning. In all but two of the 44 schools visited, the survey found pupils' personal development, in terms of the activities and attitudes characterising creative learning, to be good or outstanding.
33. The most striking examples of pupils' positive personal development were presented by those who came from challenging circumstances, as the following example illustrates.

Making a difference

An eight-year-old girl, who, according to her headteacher, had been 'transferred out' of more than one school because of her aggressive behaviour, said: 'Here we don't do biting and spitting. We do work things.'

At the time, she was working with another child and a teaching assistant on creating mathematics questions for the rest of the class to answer. Mathematics was more than 'doing sums', she pointed out. She was taking very seriously her responsibility to help others grasp what the class was studying by embedding the relevant calculations imaginatively within a selection of 'real life' cameos. She was determined that her questions would catch the imagination of her peers as well as challenge their understanding. She had high expectations, was quick to identify weaknesses in her own or her partner's suggestions and showed a level of concentrated engagement that the teaching assistant said would have been unimaginable not long before.

She was confident of her role and her worth and keen to contribute positively to her class's learning.

34. Pupils were seen to tackle their personal areas of difficulty more steadily when they could offset them with achievement in an activity that gave them scope for self-expression and self-esteem. A teenager, for example, who struggled with most of the core curriculum and with acquiring English language skills, proudly demonstrated her drumming skills before reflecting: 'Anyone can play the drum – it takes *love* to play it well.'
35. Pupils across the age range responded enthusiastically and with commitment to opportunities to contribute positively to their school or local community. Such opportunities drew on their capacity as creative learners. This was especially true when they could see clearly how they were developing skills for later life, for example through participating in decisions about the design of new school facilities or collaborating with professionals to present a radio programme or

make a film. In the following example from one of the primary schools, creative ideas, shared planning, well-managed team work and self- and peer-review all emerged as pupils assembled a weekly broadcast.

The week 'on air'

The director of the local radio station came to the school each week. With her team she had built a radio studio in the school at very reasonable cost and continued to fund the project. A telephone link had been installed in the studio and pupils now carried out interviews with celebrities such as the *Look North* weather man.

A media team in each class was responsible for taking forward pupils' work and ideas. Once the content was chosen and shaped, the team worked in the studio to prepare the broadcast. Team members provided support and guidance for pupils who took part on an occasional basis.

When special visitors were brought in for interview, the pupils always designed the questions, in consultation with staff, and showed their skills in keeping questions open-ended. They played a key role in editing the recorded material each week into a 10-minute programme.

Participation was wide. Classes took MP3 players out on visits and interviewed people in different settings. Outside the Houses of Parliament, for example, they asked visitors what they thought about the building and what it represented.

Every class listened to the weekly broadcast before they went home on a Friday and a podcast was made available on the website for families to access during the week.

In discussion with pupils it was clear that this sustained activity reinforced a sense of community through the school as well as developing self-discipline, teamwork, time management and communication skills, creativity and critical thinking.

Creative learning: effective teaching

36. Creative learning was often presented under a different banner, for instance where it was being developed as part of a whole-school approach to the 'enjoy and achieve' outcomes of the Every Child Matters agenda. The schools that encouraged creative approaches to learning deliberately set out to promote a variety of ways of thinking and problem-solving. The survey judged eight of the 24 nursery and primary schools to be outstanding in boosting pupils' achievement and enjoyment of learning, 15 were good, and one was satisfactory. In the secondary schools, the profile of judgements on the effect of creative learning was similar: five of the 19 schools were outstanding, 12 were good and two were satisfactory.

37. In both the primary and in the secondary schools visited, the most effective teaching made good use of creative approaches, and also helped the young people develop their own creative abilities.
- Teachers guided but did not over-direct pupils.
 - Considerable emphasis was placed on developing skills, especially problem-solving and communication, with pupils able to track their progress and to understand how one level of competence led on to the next.
 - Teachers' skills in questioning pupils were excellent. They fostered a spirit of enquiry and an awareness of there being multiple possibilities rather than one acceptable answer.
 - Pupils with widely differing abilities and interests were fully engaged and appropriately challenged.
 - Teachers and pupils used many kinds of technology effectively: to gather information, to model possible solutions to complex questions, to construct presentations and to communicate in an engaging and provocative way.
 - Role play was used to explore ideas, to encourage empathy and speculation, to practise working in teams and making decisions, and to build confidence.
 - Teachers and pupils responded enthusiastically, purposefully and with curiosity to opportunities offered by partnerships and outsiders with specific expertise.
38. Intelligent planning was the key to effective and creative learning, especially so that the degree of management involved was unapparent to the pupils. They then had the sense of individual discovery rather than of seeing themselves shepherded along a path that had already been mapped out for them. The following example from a nursery class illustrates this well.

Getting to grips with the natural world

The objective was to heighten young children's awareness of the natural world around them, to stimulate their imagination and to develop their language. The teacher had planned carefully to ensure that aspects of creative learning, such as exploring and seeing relationships, were encouraged in and developed by each child.

The teacher began the session by describing the challenges and needs facing small creatures determined to survive and thrive in a very special place, namely the garden area of the grounds to which the nursery had direct access.

The pupils listened attentively to the cameos of life and death in the mini-beast world. Then, working in small groups, they selected a mini-beast from a range of pictures as 'their' creature. They asked questions and speculated about the needs and probable pattern of their creature's

existence. 'What does it like to eat?' 'Where does it like to live?' 'What scares it?'

Well-prepared, they tested their speculations in the school garden against what they could see, feel, smell and hear. Back in the classroom, they discussed what they had found out. The teacher used open-ended questions to prompt responses and highlighted useful vocabulary.

The children's sense of ownership of 'their' creature and of the information they collected and presented about it was striking, as was the seriousness with which they listened to the information presented by others.

By the end of the session they were able to explain some of the ways in which creatures sharing an environment affected each other's living and dying.

39. Across the age range, teachers' questioning provided opportunities for pupils to be creative. In the less effective lessons, questioning too often focused on a relatively narrow set of responses. This was inhibiting, even in subjects where basic information and rules were essential as foundations for more investigative approaches. In modern languages, for example, there was clearly a correct way in which to ask the time or ask for directions; learning was more effective, however, when pupils were given scope to experiment with vocabulary and sentence structure. An incorrect response was not simply dismissed; when appropriate, differences between the intention of the initial response and its likely interpretation by a native speaker were explored.
40. Effective questioning stimulated higher order thinking skills, to encourage pupils to apply their learning to new situations and to think of alternatives to standard solutions. This challenged more able pupils especially but, well managed, successfully engaged pupils across the ability range. A productive balance between instruction and independent enquiry marked out the most successful lessons.

Shapes and patterns

A Year 1 mathematics lesson focused on shapes and patterns, taking paintings by Bridget Riley as a stimulus. After a whole-class discussion about the style and impact of the painting, music signalled 'thinking time'. Skilful questioning encouraged further analysis. This resulted in small-group discussion and decision-making, leading to the identification of mathematical shapes and judgements about the overall impact of the patterns.

Pupils then worked in pairs on a second Riley image, analysing this example more independently. When the second painting was reviewed, the teacher improved the analysis through a blend of suggestion and questions. She drew attention to the most enterprising descriptive

vocabulary used by pupils, such as 'zigzag' and 'chequered', as well as to mathematical terms such as 'semi-circle' and 'rectangle'. Then, confidently and independently, pupils were able to produce and analyse, in basic mathematical terms, their own created shapes and patterns. The four or five most able pupils worked on computers, arranging a given selection of shapes into as many patterns as they could and evaluating each other's constructions.

41. In primary and in secondary schools, role play was often used effectively to encourage questioning and attention to detail, and to extend the topic imaginatively. 'Hot seating', a concentrated form of role play, gave pupils valuable opportunities to explore ideas and events imaginatively, as this primary school example shows.

Hot seating

A Year 6 class made excellent progress in learning about the diary of Anne Frank, as part of their study of the Second World War. They took it in turns to represent characters from the diary and answered their peers' questions confidently. This 'hot seating' developed their oral skills as well as the empathy and imagination they showed later in their writing. The success of this activity depended upon the teacher's careful organisation: the first presentations set a challenging but achievable standard for others and stimulated serious thinking and questioning.

42. A similarly effective approach was seen in the secondary schools visited. In one school, for example, Year 10 students explored motivation and themes in the novel *To Kill a Mockingbird*, by taking on characters' roles and making sure that this imaginative engagement was solidly supported by textual evidence. In another school, a mixed ability Year 7 class found 'hot seating' a way of getting to grips with *Macbeth*, as described in the next example.

Role play

The class was considering the power of language in *Macbeth*. Working in pairs, students talked through the sequence of events leading up to Duncan's arrival at Glamis Castle. A whole-class discussion ensured that everyone understood the temptation facing Macbeth and his wife. With prompting from the teacher, the students worked through Lady Macbeth's response to her husband's letter, before pairs discussed the relationship between the Macbeths. Not all of the students were able to progress beyond a basic retelling of the plot at that stage. When the teacher asked for a volunteer to take on the role of Lady Macbeth and answer questions from the class, one of the more able and confident students took up the challenge.

After some initial nervousness, the class showed growing social and moral awareness in the questioning. The more able students commented on

motivation and the manipulation of Macbeth by his wife. The girl speaking for Lady Macbeth responded with considerable verve and persuasiveness to questions about her ambitions, her fears and her justification for plotting to kill the king.

The final whole-class discussion showed that, following the 'hot seating', most of the students had gained a more rounded view of the character and had reached very definite conclusions about the decision at the heart of the play.

43. Inventive use of spaces and materials encouraged creative learning. In one of the infant schools, for example, an old, 'well-worn' building stimulated learning through providing space and inspiration for lively art work, three-dimensional constructions and animation projects. The displays celebrated individual achievements and encouraged other pupils.
44. The following example illustrates the long-term benefits for pupils' personal development of opportunities to work collaboratively and make material decisions, enhancing their preparation for life beyond school.

Life studies

Year 10 technology students prepared and presented a demonstration for local residents to illustrate how home cooking can promote healthy eating. Establishing a strong link between school-based learning and the 'real' world gave the curriculum credibility in the eyes of pupils and families who had no tradition of further education, training or employment. It also gave pupils a realistic grasp of the expectations as well as the opportunities ahead of them.

45. There were a few exceptions to the generally very positive picture of teaching and learning in the schools in this sample. Pupils made little progress when the outcomes expected were insufficiently challenging and when they received insufficient guidance. Those who lacked the skills and motivation to work independently then lost focus. Occasionally, teachers failed to grasp that creative learning was not simply a question of allowing pupils to follow their interests; careful planning was needed for enquiry, debate, speculation, experimentation, review and presentation to be productive.
46. Lack of confidence, most often linked to concerns about examination results but sometimes growing from insecure subject knowledge, led to a more didactic approach from a few teachers, which then encouraged greater dependency from pupils. One of the secondary schools visited, for example, was introducing more creative approaches to learning but, at the time of the survey, these were not well-embedded. In discussion, middle managers identified students' lack of confidence as contributing to their over-dependence on teacher input. Older students, who lacked the confidence to risk failure, were reluctant to commit themselves to strategies which they had not encountered before. Themed days

provided opportunities for students to collaborate, develop self-management skills and explore ideas but, when the teachers did not make the long-term benefits clear, a minority of the students remained unconvinced about their value. Such responses undermined the efforts of less confident teachers who then reverted to more familiar ways of working.

47. In five of the 22 primary schools and five of the 19 secondary schools, while the quality of leadership and management was outstanding, teaching and learning were good rather than outstanding. In each of these schools, the best practice had yet to become comprehensively embedded, although carefully considered priorities had been agreed and the process was well advanced. As a result, the teaching was not consistently successful in encouraging pupils to be creative in their approach.
48. Evidence from over 180 subject survey visits, conducted as part of the programme for inspecting subjects nationally, presented a similar picture. There was a generally positive profile of teaching within individual subjects across the curriculum. In a minority of the schools, however, the emphasis on acquiring information, sometimes as a means of preparing for national tests, led to teachers dominating lessons and limiting the scope for creative learning.

Technical skills to support creative learning

49. The picture presented by the schools in this good practice survey was more positive overall than that found recently in Ofsted's broader and more extensive information and communication technology (ICT) subject inspection programme. ICT was used well in three-quarters of the schools visited for this survey, although not all teachers exploited it fully to promote creative and independent work.
50. Examples of good practice encouraged pupils to make connections across traditional subject boundaries and to respond imaginatively to technology as a resource. This extended and reinforced pupils' development as creative learners. The following example comes from one of the primary schools visited. Here an understanding of the choices made and techniques used in film-making enabled pupils to be analytical, collaborative and imaginative.

From criticism to creation

A Year 2 teacher combined reading and writing with other approaches to interpretation, evaluation and presentation. He encouraged pupils to make connections, ask questions and reflect critically on ideas and actions. He had chosen a Japanese film, *My Neighbour Totoro*, as the stimulus for learning, splitting the film into sections to study different aspects of the story. This session came as the culmination of work with pupils through which they had learnt to analyse film from the different standpoints of setting, sound, action and language. Discussion at the start of the session

demonstrated that the pupils had a good understanding of these categories.

Each pupil was given a small whiteboard with the different categories as headings. During the first showing of the film clip, the teacher helped pupils identify key moments for focusing on the areas for analysis. During the second showing, pupils used the whiteboards to record their own responses across any categories they chose. They discussed their observations and evaluations, showing considerable knowledge and an ability to challenge each other constructively. They not only questioned and challenged each other's responses to the clip 'as film'; they showed curiosity and imagination in exploring the culture and assumptions that had shaped the film.

Finally, each pupil wrote an ending for the story they had been watching. The writing was highly imaginative, with a strong sense of place and, in many cases, a sophisticated vocabulary and range of expression.

51. In the secondary schools visited, as in the most effective primary schools, a range of technology unlocked creative approaches to learning for students across the ability range. For those with special educational needs and/or disabilities, technology was often their most reliable and quickly rewarding route to achievement and confident personal development. This was vividly demonstrated in the special school visited and was a striking feature of all the schools with a very broad range of ability. In the special school, for example, where the majority of pupils found conventional means of communication very difficult, a wide range of devices and software gave them access to a broader curriculum and a degree of independence in their learning. Internet access, graphics and animation and the technical skills involved in design and technology offered creative possibilities to those who otherwise struggled to communicate or calculate.
52. Pupils and students showed a sense of personal achievement when they discovered that they had the ability to translate concepts into well-crafted objects, demonstrating an understanding of the creative process and developing a marketable set of skills. As the following example illustrates, Key Stage 4 students found that interpreting a design brief accurately and being able to evaluate each stage of their work gave them the motivation and many of the skills needed to make progress in other curriculum areas.

To an original design

A school with an engineering specialism was particularly successful in engaging young people whose circumstances made them hard to reach in producing furniture to original designs. The students took great pride in the very high reputation of their design and technology department. Knowing that they were to display their efforts at parents' evenings and in

the local community helped to sustain their motivation and raise expectations. This provision was carefully targeted to support many students at risk of exclusion. Attendance was very high and some students spoke of how being involved in such projects motivated them to do well in other subjects, particularly English and mathematics. Their confidence was reflected in their improved attainment.

Creative approaches to learning and assessment

53. In all the schools visited, leaders and teachers were keen to achieve a balance between:
- formative, in-school assessment of pupils, intended to support and shape their progress; that is, assessment for learning
 - summative assessment of individual pupils, often through tests or public examinations
 - external assessment of the school against national expectations, comparing each school's effectiveness in maximising pupils' achievement with others nationally.
54. The survey found that the external, summative assessments had a notable impact on schools' planning and setting of priorities – for example, in focused intervention for borderline pupils. Schools found it harder to establish systematic and consistent methods for recording and evaluating pupils' development as learners, rather than their attainment at the end of a unit or a key stage, and the success with which this was done varied considerably.⁵ Findings from Ofsted's subject surveys across the curriculum have also shown considerable disparity in schools' success in developing effective assessment of the process of learning. The following examples illustrate some of the successes.

A survey visit to a primary school noted the positive impact of a 'show and tell' approach. The pupils were able to explain their design, assess how successfully they had solved particular problems and reflect on how they had been stimulated to more imaginative invention in responding to difficulties. They evaluated the process as well as the product, learning from each other's experience.

A further example of good practice came from a religious education survey visit to a secondary school:

⁵ A similar finding is reported in *Planning for change: the implementation of the Key Stage 3 curriculum* (080262), Ofsted, 2009; www.ofsted.gov.uk/publications/080262. It reported that 'the development of effective methods of assessing progress in personal, learning and thinking skills was limited'.

Assessment for learning had been the focus for whole-school staff development and was being used effectively in religious education lessons. The Locally Agreed Syllabus did not simply prescribe the content to be taught but set high expectations in terms of processes and the breadth of learning opportunities offered to students. The teaching in this school met these expectations.

55. On the other hand, subject survey visits also found instances of activities that had little connection with the learning objectives.

Inspection of the teaching of modern foreign languages in a primary school found that most of the work involved the learning and repetition of simple lexical items. Although there was some scope for creative learning, it was not connected productively with the subject. The inspector wrote: 'Joint projects have included the design of a "garden of imagination" and some creative writing, both in French and published in small booklets. These projects have doubtless benefited pupils' creativity in design and literacy but have had no impact on their French.'

56. When given opportunities to participate in their own assessment and that of their peers, pupils across the age and ability range responded willingly and could explain to inspectors how this helped them as learners. They showed the value of being encouraged to be questioning and challenging, to envisage what might be, and reflect critically on ideas, actions and outcomes – all key aspects of creative learning. The following illustrates this.

Getting it together

The pupils thoroughly appreciated written dialogue based on the marking of their work. They were clear that the teacher would continue the dialogue about how to improve and that he valued their comments. They were keen on self-evaluation and peer- or group-evaluation and used these terms very confidently. They valued this and felt that it was good to receive oral feedback.

In Year 6, the pilot scheme to involve pupils in analysing the effectiveness of each individual's role within the group was seen to be working well. Pupils had become accustomed to submitting ideas for peer-review when they worked in groups on projects, so they approached this extension of peer-review confidently and, as their books and folders showed, they were happy to incorporate positive suggestions into their own work.

The school was beginning to assess the impact on achievement of extra-curricular clubs and the playing of a musical instrument, but this was in its very early stages and the impact was not quantifiable.

57. Beyond the Early Years Foundation Stage, the schools in the survey were not consistently tracking and evaluating small but steady improvements in a

systematic and transparent way. The nursery schools visited built up detailed records of children’s developing skills and attitudes, linked to the Foundation Stage Profile. Children’s growing ability to use language, to manipulate numbers, to make sense of their surroundings and to engage constructively with others was assessed and recorded routinely, with written observations and charts often complemented by photographs.

58. In two of the primary schools in the survey, teaching assistants in Key Stage 1 routinely observed and recorded pupils’ contribution to lessons and activities and their interaction with others. In these cases, ‘small but steady improvements’ were evaluated and shaped teachers’ expectations of and their approaches to individual pupils. In seven of the 22 primary schools visited, however, the further pupils moved from the Early Years Foundation Stage, the more difficult the schools found it to establish a reliable and consistent way of recording the process of pupils’ learning across the curriculum. There were few systems to establish, for example, whether the impact of a pupil’s growing confidence and competence in recognising and applying number-based patterns in music could be traced in her or his progress in mathematics.
59. In design and technology, physical education and the performing arts, the survey found effective assessment of process as well as outcome. Here, peer- and self-review were built in from the beginning to the final assessment, with pupils determining the direction and scope of their next step in the light of regular feedback.
60. A range of BTEC courses observed during the survey showed the positive impact of the required peer- and self-assessment on creative learning. This example is from a media studies session for Year 12 students.

Peer- and self-assessment

All the students had chosen the BTEC media course because it was predominantly practical and production-based. They felt that they benefited from regular and rigorous evaluation of their work by their peers as well as by their teacher. All of them were able to define and demonstrate the skills they had developed in the first term of the course.

In pairs, they were constructing a video sequence to advertise a product of their choice. They discussed options, experimented with techniques, evaluated the effect of each step in their storyboard and either refined their original idea or put it down to experience and explored a different approach. Towards the end of the session, each pair presented its work to the group. The group was reminded that it must demonstrate the development of required techniques and that individual expression had to be refined through rigorous analysis. The critique was uncompromising but never brutal. The teacher ensured that no one voice dominated the

discussion and that the assessment always ended on a constructive note, with clear guidelines for the next step.

In addition to this sequence of peer- and teacher-assessment, each student kept a written record of the project planning and development, with self-review at every stage. Great care was taken over this since it formed part of the final portfolio submitted for assessment.

61. In 14 of the schools visited, well managed practical projects, fieldwork and individual investigations combined activities associated with creative learning with rigorous and systematic assessment. One of the primary schools visited, for example, had a detailed assessment schedule with an ambitious programme of out-of-classroom learning. It combined the setting of targets linked to the extended curriculum with an analysis of results from end-of-unit assessments and the review of pupils' individual progress.
62. Embedding assessment of the learning process into teaching and curriculum provision was included in the development plans of almost all the schools visited. This was generally linked to raising standards in the core and foundation subjects. Assessment for learning featured both in staff development programmes and in schools' teaching and learning policies. Teachers and pupils understood that the focus of assessment was on the process of learning based on a cycle of presentation, review, reflection and development, leading once more to presentation. They were clear that its purpose was to monitor progression and measure individuals' achievement and that it should not seem threatening. They saw that the review stage of the cycle should be collaborative, involving peer- and self-assessment alongside assessment by teachers. School policies stressed that the marking of work should balance encouragement with specific guidance on how to improve.
63. The six areas of activity described in the QCA's framework for identifying and recording pupils' personal, learning and thinking skills sat comfortably alongside schools' aspirations for their pupils as creative learners; that is, to become independent enquirers, creative thinkers, reflective learners, team workers, self-managers and effective participants.⁶ Schools found the descriptions of what each activity would look like in practice to be helpful.

Managing the process

64. Unsurprisingly, in each of the schools visited, the key to success in promoting creative learning lay with the quality of the leadership and management. In the schools where creative learning was outstanding or at least good, the school's leadership could demonstrate how it had carefully and consistently put in place the required culture and conditions.

⁶ *Personal, learning and thinking skills* (QCA/08/3606), Qualifications and Curriculum Authority, 2008.

65. The schools that most effectively promoted creative learning displayed:
- high expectations *for* all pupils and *of* all staff
 - long-term commitment, with a readiness to take risks and adapt in response to experience, all clearly articulated in the school development plan
 - a securely embedded, whole-school culture, supported by carefully deployed investment in resources and staff training
 - effective engagement of the wider community, especially parents and carers, to support and share in the pupils' learning.

These elements are characteristic of most effective schools but they appeared particularly important in the promotion of creative learning.

66. In 13 of the primary schools and 10 of the secondary schools, the leadership and management were outstanding in identifying what was needed to foster creative learning and in managing all aspects of its implementation. It was clear that success had been achieved over time and that continual review, reflection and revision were essential to maintain it. The following examples illustrate the nature and scale of the challenges facing some school leaders. The first comes from what is now a very successful primary school.

Overcoming obstacles

In 2003 the school was part of an intensive support programme; standards and achievement were low and about 25 pupils a week were absenting themselves. Staff absences were high, there was instability at leadership level and the curriculum was not engaging most of the pupils. A new headteacher took over. Governors and the school's leadership team agreed that changes were needed and that these would be non-negotiable. Some staff left.

Subjects were broken down into topics and themes that demanded different approaches to teaching and learning. Driven forward by senior staff who had expertise in the Early Years Foundation Stage and Key Stage 1, the new curriculum required collaboration and a real commitment from staff to make pupils' learning engaging and relevant. Role play, 'freeze frames'⁷ and 'talking partners' became key elements in lessons throughout the school from the Nursery to Year 6. Pupils' active involvement meant they wanted to stay in the classroom. One explained, 'I enjoy the lessons because I get a chance to decide what I want to do – teachers make our lessons fun.'

⁷ Freeze frames can be used in drama teaching for pupils, individually or in groups, to encapsulate and communicate key feelings, ideas or actions. Pupils use their bodies to create a non-moving tableau, like a 'still' from a film.

Standards improved and, during the survey visit, there was a buzz of excitement in lessons as pupils made decisions about their own learning.

67. The second example comes from a secondary school in challenging circumstances.

Creative learning: rising standards

The headteacher of a non-selective school surrounded by grammar schools inherited teaching of a 'patchy' quality, low attainment and poor behaviour among a considerable proportion of the students. Looking for a lever to shift standards and achievement upwards, he decided to build on the school's reputation for strength in the performing arts. His objective was to raise staff and students' self-esteem through excellence in the expressive arts: 'success for 11+ failures'. He identified his own lack of nerve as the greatest barrier to success at first but persevered.

The school now requires departments to produce at least one module taught in a way explicitly designed to promote enquiry, independence, cross-curricular thinking and self-assessment against challenging standards. An annual grant to encourage departments to be enterprising has concentrated minds wonderfully.

Standards have risen. The percentage of students gaining five or more A* to C grades at GCSE increased from 22% in 2005 to 53% in 2008. The headteacher readily acknowledged that further improvement was needed but the school is now oversubscribed and has attained specialist status as an arts college.

68. Vision translated into good practice was also a striking feature of the special school visited. Leaders presented a very positive view of what their pupils could and should be able to do if they were challenged and supported effectively. Clear aims and attention to practicalities ensured that policies and practice were consistent, that all pupils had opportunities for creative learning and that the outcomes for pupils were rigorously monitored. Well directed investment in technological devices and adapted materials enabled pupils to participate fully in lessons and to have access to a broad curriculum. Creative learning here, as in the other schools, was promoted through curriculum design and an approach to teaching that encouraged pupils to make connections, see relationships, imagine, speculate and actively investigate. The school had developed meticulous systems to track progress, with a record of each pupil's learning captured through photographs and perceptive annotations by teachers. In one example, a teacher had noted that a child with multiple and profound disabilities had succeeded in sorting and sticking shapes to make an elephant collage to illustrate a story she had heard. This had called for exploration, decision-making, reflection and construction. Disabled learners across the spectrum were able to share a sense of personal achievement with their

families and carers through the photographic record of their progress. Continuing professional development for teachers and support staff concentrated on the craft of teaching, with subject leaders providing examples of high quality practice. The school has become a specialist training centre.

69. Leaders and managers in all the schools visited described how external programmes and partnerships had supported their pupils' development as creative learners. Among the options for some had been partnership with a neighbouring independent school and the survey evaluated two of these partnerships. In one, a highly effective state secondary school was taking the lead in a key area: the use of computer technology to support students' independent learning. Their partnership with three other state-maintained schools and an independent school had evolved over a six-year period, with each participating school able to track improvements.
70. The initiative for the second partnership came from a teacher at an independent school, who contributed to an outreach programme set up by the Institute of Physics. Out of this grew a very active partnership between two secondary state maintained schools and his independent school. It had a measurable and positive impact on the quality and style of learning for able Year 9 pupils, illustrated in the following example.

Good partners

The lead teachers in the state schools were clear about the benefits of the fortnightly sessions for students in Year 9 who were being encouraged to think seriously about taking triple science at least up to GCSE level. Additional subject expertise and practical resources allowed students to extend their enquiry, investigation and evaluation significantly beyond the mainstream science curriculum. The impact on the students' motivation and confidence was commented on by both the lead teachers. One of the teachers quoted the example of a boy with difficulties on the autistic spectrum who, in the teacher's words, had 'blossomed' and made exceptionally rapid progress from Level 2 to Level 5 in science within a year. The partnership had also had a positive impact on curriculum development, promoting a more experimental and creative approach in Year 7. This was increasing students' interest in science and encouraging their development as creative learners.

71. An important factor in the success of these productive partnerships was sustained support from leaders and managers in all the participating schools.
72. Apart from the school for pupils aged nine to 13, all the secondary schools visited had specialist status and had developed active partnerships with other schools and groups in the community. Specialisms included engineering, mathematics and computing, science and technology as well as subjects generally thought of as 'creative' such as music and arts. All had invested in

new technology to support innovative approaches to learning not only within their specialist subject area but across the curriculum. Subject expertise and resources were productively deployed in projects that encouraged pupils from local schools and community groups to explore concepts in unfamiliar and imaginative ways. One school, for example, used its music technology, animation and television facilities to offer scope for creative experiment and problem-solving to its own pupils and others in activities such as 'dramatic science'.

73. All the primary schools in the survey also collaborated with other schools, colleges or local businesses to extend and enrich their pupils' experiences. The survey found evidence that these partnerships had brought expanded opportunities for sharing resources, expertise and enterprise. Staff spoke enthusiastically about the benefits of sharing good practice and the opportunities for personal and professional development that came from leading a joint project. Such collaboration overcame one of the obstacles to promoting creative learning, that is, the range of resources and expertise required to support enhanced activities and multifaceted projects. Often with active support from the local authority and from higher education, these partnerships extended pupils' knowledge of their local community and encouraged them to work with others from different backgrounds, as this example illustrates.

Community collaboration

Eight primary schools in a seaside town collaborated on an arts project, linked to the re-opening of the town's arts centre. It was led by the head of education and learning at the arts centre and the local authority's arts coordinator, who selected the artists to be involved. Funding from a charitable trust supplemented the investment each school made. Teachers and practitioners collaborated on planning and agreed what the project's outcome should be. The brief for each school was to explore how the arts centre could best support their creative learning in subjects such as history, geography, science, English and mathematics, as well as the arts. Each school had four full days of involvement from an arts practitioner. The shared sense of achievement was increased by knowing that over 700 people visited the project's exhibition during the two weeks of its presentation in the arts centre.

The arts centre's head of education and learning felt that the willingness of teachers, pupils and practitioners to take risks, to experiment and to reconsider if one line of action proved unproductive had been vital to the project's success. The schools involved drew ideas and skills from the experience and were embedding them into their curriculum planning and their approach to teaching and learning. To support this, a 'toolkit of ways and means' was being produced.

74. While collaboration with agencies and individuals beyond school can add momentum and shape to leaders' and managers' aspirations and objectives, a critical factor is their determination to translate the initial momentum into a way of working that is sustainable and productive. As would be expected of good leadership, headteachers in the schools surveyed emphasised the quality of teaching as essential to promoting creative learning. In the few instances observed where confidence, commitment, appropriate skills and secure subject knowledge, or any combination of these, were lacking, teachers did not succeed in encouraging pupils to take the initiative, for example in considering how to explore a topic or evaluate the quality of their conclusions and constructions.
75. Sustained investment of time and resources in well-targeted professional development was a common factor in the most effective schools visited. At primary and secondary level, the professional development identified as highly effective by school leaders and teachers was organised most often within the school and run by those with 'hands on' experience and expertise. Six of the secondary schools and 11 of the primary schools visited also stressed the value of input from their local authority in shaping and supporting creative learning. Examples included:
- the secondment of advanced skills teachers in core subjects
 - guidance in developing assessment criteria
 - practical help in developing technology, especially ICT, to encourage pupils to become independent learners.
76. An additional resource, well used by about half the schools in the survey, was provided by a range of government-funded agencies and education trusts.

External resources and support

National initiatives to promote creative learning in science, technology, engineering and mathematics

77. During the survey, inspectors reviewed various programmes run by government-funded agencies, learned societies and not-for-profit educational trusts, principally the Science, Technology, Engineering and Mathematics Network (STEMNET), the Royal Society, the Gatsby Trust, the Wellcome Trust and the Nuffield Foundation. Each presented a vigorous commitment to bringing resources and expertise into schools to improve the uptake of physics, chemistry, technology and engineering in post-16 education and beyond. A shared objective of all the programmes surveyed was to infuse pupils with excitement, enquiry and a sense of achievement, and to create an engaging connection with science, technology, engineering and mathematics in the world beyond school. The leader of one organisation lamented what he saw as a move from 'open-ended aspiration' to a narrow focus, even in practical project

work. He went on to say: 'Practical work is where students can be creative. "Do saucepans release aluminium when boiling fruit?" can be a creative investigation if schools do not assert control in order to ensure a conventional result. What could be an open-ended project is too often turned into a closed exercise.' A senior manager in another organisation wondered why 'creativity' was not talked about more often in school science.

78. Three principal strands were identified in discussion with the schools visited and with the organisations included in the survey:

- bringing practitioners from the science and engineering faculties of universities and from industry into primary and secondary schools to lead concentrated, time-limited projects, most often organised as an enrichment activity
- providing off-site opportunities for selected groups to work in a context with facilities, expertise and scope for experiment that could not be matched by schools
- working with teachers, over time, with additional resources where appropriate, to enhance their confidence, commitment and skill in fostering pupils' independent and creative learning.

79. There was evidence that care was taken to link programmes to core curriculum content in the schools visited, as well as to provide opportunities for STEM-related activities beyond school. However, organisations reported that setting up an infrastructure to work with any one school over an extended period was difficult, not least because schools seemed slow to develop the capacity to build on initiatives from outside and the process was resource-intensive. Schools, for their part, spoke of funding problems and timetabling pressures. Findings from Ofsted's science subject survey support the conclusion that few schools, especially secondary schools, have established productive and sustained links with out-of-school agencies to extend and enhance their own provision.⁸ This is mirrored in recent design and technology subject surveys, which found that pupils in almost all of the secondary schools visited had little or no opportunity to meet and work with, for example, designers, engineers or chefs. The difference between the picture presented on a national scale and that emerging from this survey's visits to a selection of good practice primary and secondary schools highlights the unevenness of provision and its impact on pupils' experience.

80. Inspectors found that providing inspiring off-site activities as described earlier required substantial resources and was, therefore, generally the province of large and well funded organisations. Resources offered nationally by government-funded agencies and major educational trusts have given schools

⁸ *Success in science* (070195), Ofsted, 2008; www.ofsted.gov.uk/publications/070195.

access to sophisticated practical facilities and input from scientists and engineers working on research projects. The Wellcome Trust, for example, has exhibition and practical facilities for science-based projects with challenging social issues in its *Free Your Mind* programme.

81. The Royal Society provides funding for equipment and sponsors school visits by scientists and engineers engaged in research and development. An evaluation in 2003 by the University of Liverpool of The Royal Society's Partnership scheme pointed to the positive impact on pupils' engagement and understanding.⁹ It reported that nearly all the teachers, scientists and engineers involved felt that the scheme had increased pupils' interest in and enthusiasm for science. Responses to a questionnaire highlighted the key benefits as hands-on experience and the improvement in pupils' practical and thinking skills, along with a better understanding of 'real' science and insight into the life of scientists and engineers. The teachers were inclined to be more positive about the benefits than the participating scientists and engineers. This may suggest that their expectations were lower, raising questions about the levels of challenge in the schools.
82. Alongside programmes run by these high profile organisations were projects on a smaller scale, with more tightly focused areas of activity. Some had evolved out of large, national bodies, carrying with them the principles and many of the priorities of their heritage, such as the following.

'Thinkering' space

One organisation took shape as a not-for-profit group to promote creativity in education when its parent organisation shifted its priorities. It has provided a base and resources for students to manage what the organisers described as a 'thinkering space' (thinking and tinkering). Students, with discreet mentoring, take responsibility for setting up practical projects, most often with a scientific or engineering focus. Collaboratively they draw up a brief for the project and organise the participation of an artist, scientist or engineer to help them develop and test their ideas. A very positive response to the initial scheme in Nottingham has led to the model being taken up elsewhere, in Bristol for example. Funding came from bodies including the Regional Development Agency and the Nuffield Foundation.

The survey found that the more able pupils sustained the impetus of such activities, often using the internet and computer applications to model experiments and explore possibilities in a creative way.

⁹ *Evaluation of The Royal Society's Partnership Grants Scheme for Schools*, Smithers, Robinson and Tracey, Centre for Education and Employment Research, University of Liverpool, 2003.

83. In all discussions during the survey, a common theme was how best to enhance teachers' knowledge and give them the skills and the motivation to try more interactive and engaging approaches. One of the primary schools visited was clearly enjoying and benefiting from the resources and expertise brought to its doorstep by the establishment of an outreach Science Learning Centre.

Science on the doorstep

The centre is a base for education and training, pupils' visits and links with industry and research. The school has responded by embedding the centre's culture, resources and expertise into its planning, its staff development and its curriculum provision. Four staff teams were created across the school to focus on aspects of teaching and learning, with every member of staff then involved in an enquiry-led process. Each team drew on expertise from the centre's resources. A particular focus was the development of key skills and what was described as a 'skills learning environment'.

The school's leadership and management felt that this had added considerable energy and impact to its drive towards a more productive, skills-based curriculum.

84. The experience of this primary school was very positive; however, Ofsted's science survey inspections have presented a less encouraging national picture. It shows a general lack of awareness amongst primary schools of the services offered by Science Learning Centres, limiting their impact on teachers' professional development and on pupils' experience of science in school.
85. Although each of the organisations looked at has a clear identity and discrete programme, this survey found examples of constructive collaboration and a consistency of purpose. The challenge for government-funded agencies, educational foundations and learned societies was to avoid inefficient duplication and to ensure that the interventions were well targeted to:
- meet the needs and capacity of participating schools
 - keep up to date with changing expectations and requirements in education
 - carefully evaluate the impact of programmes.

There was evidence that, in these respects, the organisations considered in this survey had been largely successful where they had established positive links with primary and/or secondary schools.

Creative Partnerships

86. Following the publication of Ofsted's report on the Creative Partnerships programme in 2006 and, to a considerable degree, in direct response to it, the programme has not only greatly expanded but has also thoroughly reviewed

and revised its systems for selecting and supporting participating schools in developing creative learning.¹⁰ Effective steps have been taken to:

- improve clarity, rigour and coherence in selecting schools to participate
- use local knowledge to direct resources and to challenge specific schools, for example ones where the local authority has pointed to dull learning and hard-to-shift underachievement
- monitor systematically, tracing the impact of targeted intervention
- clarify roles, linked to planning and evaluation, to ensure that interventions are realistically aligned to pupils' starting points and meet the needs of specific groups.

87. Since April 2008, schools applying to be included in the programme must move through a phased selection process. The deciding factors have similarities to Ofsted's own inspection criteria: well-supported self-evaluation leading to detailed development planning, with the promotion of creative learning as a priority and with substantial scope for pupils to contribute to decision-making and review. Among the ten secondary and eight primary schools visited for the survey that had been, or still were, engaged with the Creative Partnerships programme, there had been notable improvements in their levels of achievement and in measurable aspects of personal development, such as attendance. Although it would be wrong to claim direct cause and effect between involvement with Creative Partnerships and these improvements, headteachers in the survey's 18 Creative Partnerships schools identified changes in policy and practice that they attributed to lessons learnt through participating in partnership projects. The following examples from two secondary schools illustrate this.

Breaking down barriers

Links with the Creative Partnerships programme were sought by the school to break down the barriers to learning that had contributed to its being made subject to special measures in 2005. In their application to become a Creative Partnerships 'change school', leadership and management positioned creative learning as central to improvement in teaching and learning. The school's current documentation and discussion with staff during the survey visit showed that greater flexibility in planning and more imaginative approaches in the classroom had been enthusiastically and effectively embraced. The percentage of pupils gaining five or more A* to C GCSE grades had risen steadily, from 35% in 2005 to 57% in 2008. There was a similar pattern of improved achievement across Key Stage 3.

¹⁰ *Creative partnerships: initiative and impact* (HMI 2517), Ofsted, 2006; www.ofsted.gov.uk/publications/2517.

Creative Partnerships

In one of the secondary schools with several years' participation in the Creative Partnerships programme, the headteacher pointed to a marked rise in attainment, from only 9% of students gaining five or more A* to C grades at GCSE, including English and mathematics, in 2005 to 34% in 2007. This improvement was matched by improved attendance and more positive engagement in the school community by students whom the school had previously found hard to reach.

Members of the senior leadership team commented: 'The process itself is a success... You can see what's happening.'

88. In examples of successful participation, strong links were established between each project and National Curriculum requirements, which pupils could identify and draw on to support their day-to-day learning. Ofsted's report in 2006 on the Creative Partnership programme recommended that those going into schools to lead projects should define their roles clearly and collaborate with the schools during the planning stage to ensure a shared understanding of the levels of skill and the knowledge pupils would bring to the project. This is a two-way process. Creative Partnerships' new selection procedures require schools to:
- identify what they mean by 'creativity' in learning
 - explain which aspect of school improvement or which group of pupils will be supported through a Creative Partnership programme
 - demonstrate commitment to the programme at all levels of leadership and management
 - outline how they will evaluate the project and build on its impact.
89. In the 18 Creative Partnership schools visited, leaders and managers were confident about the value and practicality of integrating the programme into their school improvement planning. The primary schools, in particular, were eager to provide examples of the continuing impact of their involvement in Creative Partnership activities on teaching and learning. Most commonly, they referred to a more investigative approach in developing the teaching of science and mathematics, with more extensive opportunities for pupils to speculate and then test their theories, often using resources drawn from other subject areas.
90. In one of the primary schools, the immediate impact of a Creative Partnerships project on learning and personal development had been very positive, as staff and pupils themselves explained with great confidence, but in this case there was no evidence of subsequent improvement in pupils' attainment in national tests.

The benefits and pitfalls

'The key things we learned during the project were to take risks and let the children run with their ideas, giving ownership of the learning to the children. When we did so we saw learning and, with the children, discovered countless cross-curricular links.'

This experience then shaped the school's teaching and assessment strategies. The headteacher and the phase and subject leaders were definite that extended projects to widen pupils' range of experience and deepen their understanding of inter-related concepts and processes – such as those involved in 'The River' or 'Invaders and Settlers' topics – improved the quality of work presented during the year. However, the pupils were not as successful in applying in formal tests the knowledge and skills they had gained through project work.

Despite this, evidence gathered during the survey visits from schemes of work, pupils' portfolios and discussion indicated improvements in the curriculum and in the breadth of pupils' learning.

91. In another of the primary schools, where teachers were nervous about the strategies to promote creative learning that leaders and managers were recommending, a dance project set up by Creative Partnerships demonstrated how even the most reluctant pupils could be engaged and excited.

Invitation to the dance

According to the deputy headteacher, a change of school culture began when the school first had the opportunity to work with an artist through Creative Partnerships and in collaboration with a local specialist performing arts school. As a result of this collaboration, the school recognised that dance had the potential to engage pupils more fully, particularly boys at risk of underachieving. Although not a dance specialist, the deputy headteacher recognised that this motivated most pupils and that they could be encouraged to improve. Pupils performed well planned, imaginative dances linked to their 'Egyptians' topic. Inevitably, some pupils were less accomplished than others but all made a positive contribution.

The school's tracking data indicated that pupils' enhanced confidence had a positive effect on achievement in other areas, including writing. Pupils also confirmed that this success had motivated them generally in their work.

92. Each secondary school which had been involved in Creative Partnerships identified good examples of projects that had supported mainstream learning effectively; this had encouraged pupils to explore National Curriculum topics in practical and creative ways. It was clear that projects did not have an

exclusively arts focus but often drew on methodology from the arts to engage pupils in questions of science, mathematics and technology. For example, pupils in one school worked with a sculptor to make a working model demonstrating the key features of plate tectonics. In almost all cases, the schools noted the improved concentration and understanding of the pupils involved, illustrated in the following example.

Do it – then write it!

The quality of writing from extended projects both by boys and by girls across the full ability range was impressive whether it was descriptive, factual or narrative, poetry or prose. Pupils grew attuned to collaborative working, to drawing from recent personal experience in their writing, to making choices about approaches, to having time and permission to be inventive and to seeing what might otherwise be regarded as 'a mistake' as a valuable learning opportunity rather than something to be ashamed of. As a result, pupils refined their work and improved its quality.

Notes

The survey drew on evidence from visits to two nursery schools, 22 primary schools, 19 secondary schools and a special school during the summer and autumn terms of 2008. The schools represented a broad geographical and socio-economic range. They were selected on the basis that, in their most recent Ofsted inspection, they were good or outstanding in terms of the judgements made on:

- the curriculum and other activities
- how well learners enjoy their education
- how well learners develop workplace and other skills that will contribute to their future economic well-being.

Of the 44 schools visited, 10 of the secondary schools and eight of the primary schools were working with the Creative Partnerships programme. These schools are identified in Annex A. The specialist status of the secondary schools is shown in the table below.

The specialist status of the 19 secondary schools visited	
Specialist subject	Number of schools
Arts	6
Engineering	2
Mathematics and computing	2
Music	1
Sports	1
Science	4

Technology	2
Not applicable	1

Additional evidence was drawn from over 180 visits by inspectors as part of Ofsted's programme of subject survey inspections during 2008–09.

Inspectors also held discussions with the Department for Children, Schools and Families, the Qualifications and Curriculum Authority, representatives from three local authorities, STEMNET, The Royal Society, the Wellcome Trust, the Nuffield Foundation, the Gatsby Foundation, the National Science Learning Centre, the Performing Arts Lab and IGNITE.

Further information

Ofsted publications

Creative partnerships: initiative and impact (HMI 2517), Ofsted, 2006;
www.ofsted.gov.uk/publications/2517.

Planning for change: the implementation of the Key Stage 3 curriculum (080262), Ofsted, 2009;
www.ofsted.gov.uk/publications/080262.

Success in science (070195), Ofsted, 2008;
www.ofsted.gov.uk/publications/070195.

Publications by others

All our futures: creativity, culture and education, National Advisory Committee on Creative and Cultural Education (1 84185 034 9), DfEE, 1999.

Assessment of Science 14–19, Professor Paul Black, King's College London, 2004.
www.royalsoc.ac.uk/education

Building Creative Partnerships: a handbook for schools (ISBN: 0-7287-1304-7), Arts Council.

Creative Partnerships and the Curriculum: Eleventh Report of Session 2006–07, House of Commons Education and Skills Committee, HC 1034, 2007.

Creativity: find it, promote it (QCA/05/1596), Qualifications and Curriculum Authority, 2005.
www.qcda.gov.uk

Government Response to Paul Roberts' Report on Nurturing Creativity in Young People, Department for Culture, Media and Sport, 2006.

Roberts, P. *Nurturing creativity in young people: a report to Government to inform future policy*, DfES/DCMS, 2006.

Testing and Assessment: Government and Ofsted Responses to the Committee's Third Report of Session 2007–08, Fifth Special Report of Session 2007–08, HC 1003.

National Council for Education Excellence: Progress Report (DCSF-01060-2009), DCSF/BIS, 2009.

Annex A. Schools visited for this survey

* identifies schools participating in the Creative Partnerships programme

Primary

Bradley Nursery School*	Lancashire
Braybrook Primary School	Peterborough
Brunswick House Primary School*	Kent
Castle View Primary School	Halton
School of Christ the King Primary	City of Bristol
Crocketts Lane Primary School*	Sandwell
Diamond Hall Junior School	Sunderland
Downsbrook Middle School (ages 8-12)	West Sussex
Duloe CofE VA Primary School*	Cornwall
Eastfield Nursery School*	Wolverhampton
Ethelbert Road Infant School	Kent
Farne Primary School	Newcastle upon Tyne
Framwellgate Moor Primary School	Durham
Frithwood Primary School	Hillingdon
Holy Trinity Rosehill CofE VA Primary School*	Stockton-on-Tees
Little Common School	East Sussex
Moorlands Junior School	Trafford
Mount Street Infant and Nursery School	Lincolnshire
Our Lady of Victories Catholic School*	Bradford
Redlands Primary School	Reading
St Laurence Church Infant School	Birmingham
Stannington Infant School	Sheffield
The Grove Primary School	Devon
Wilbraham Primary School*	Manchester

Secondary

Ashmole School	Barnet
Beaconsfield High School*	Buckinghamshire
Bodmin College*	Cornwall
Castle Vale School*	Birmingham
Charles Edward Brooke School*	Lambeth
Greenfield School and Arts College*	Durham
Halesworth Middle School (9–13)	Suffolk
Haywood High School and Engineering College*	Stoke-on-Trent
Longton High School*	Stoke-on-Trent
North Manchester High School for Girls	Manchester
Sidney Stringer School	Coventry
St Alban's CE Engineering College*	Birmingham
St Joseph's Catholic High School*	Slough
St Paul's Catholic College	West Sussex
Sutton Coldfield Grammar School for Girls	Birmingham
The Westlands School	Kent
Thomas Tallis School*	Greenwich
William Lovell CofE School	Lincolnshire
Wootton Bassett School	Wiltshire

Special

Glyne Gap School	East Sussex
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Annex B. National organisations and education trusts that contributed to the survey

Creative Partnerships: www.creative-partnerships.com

Gatsby Foundation: www.gatsby.org

Ignite! www.ignitefutures.org.uk

Nuffield Foundation: www.nuffieldfoundation.org

Performing Arts Lab (PAL): www.pallabs.org

The Royal Society: www.royalsociety.org

Science Enhancement Programme (SEP): www.sep.org.uk

Science Learning Centres: www.sciencelearningcentres.org.uk

STEMNET: www.stemnet.org.uk

Wellcome Trust: www.wellcome.ac.uk