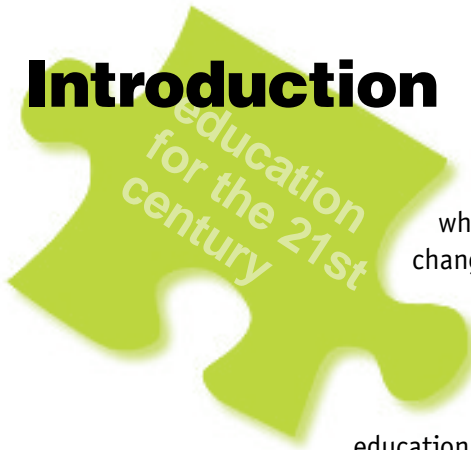


# Introduction



In April 1998 the RSA published a major report, *Redefining Work*, which looked at how working and career patterns were likely to change over the next two decades and set out an extensive policy agenda for handling the many problems which those changes seemed likely to create. Prominent among the areas that would be affected is education. It is already clear that in the knowledge economy and society of the future, people with a good education and high skill levels will be best placed to take advantage of the opportunities offered them and to handle successfully an increasingly complex world; but the report concluded that we are still educating people for a world that is disappearing.

It was about education, therefore, that the report made its most radical proposals. It called for a fundamental reappraisal of how education, as expressed through the curriculum for the compulsory stages of schooling, should prepare young people for adult life. Through its **Redefining the curriculum** project, the RSA has been exploring this further, looking at the principle of re-structuring education round a new, competence-led curriculum; at the impact of ICT on schooling, and its potential in a restructured system; and at what a competence-led curriculum might look like, and how it might be assessed. Interim findings on these were set out in a discussion paper, *Redefining the curriculum*, published in March 1999. This final report completes the curriculum project. We are grateful for the many contributions made by the individuals and organisations we have consulted, in our seminar series and otherwise. Their comments have been invaluable. The project team is of course solely responsible for the views expressed here.

The first part of this report sets out why we believe that a radical reappraisal of the aims and purposes of school education is essential; looks at the central role of the curriculum in school education, as an expression of what society thinks education is for and as a driving force behind what goes on inside schools; explains why we believe current curriculum philosophy will be incapable of meeting the demands of the future, why we think a new, competence-led curriculum should replace it, and how a transformation of the way learning is organised in schools could be achieved through a new strategy. It outlines the RSA's aims for taking further its work on strategic change in education. The second part looks in more detail at the structure of the new curriculum, how it would work and arrangements for assessment.



## The need for change

It seems that no-one is satisfied with the current state of education. Concerns may be expressed about organisation, standards or resourcing; but they all sum to at least a sense of unease, at worst a major concern that somehow or other, as one headteacher told us, schooling is 'simply not delivering the goods'. Rational debate is hard to find, partly because increasing political and media interest in education reduces much of the debate to what can be simplified into soundbites and partly because issues like, for example, what really has been happening to education standards over long periods of time are genuinely complex and not well-understood.

Concern about education is not just a UK phenomenon. Across the world, governments are paying more and more attention to it. In the older industrial economies, many governments – regardless of political orientation – engage in seemingly endless programmes of reform. In the newer industrial economies of the Pacific Rim, education absorbs substantial proportions of public spending.

The reasons for all this concern are not far to seek. Throughout the industrial world, education systems face unprecedented challenge. On the economic front, the battle of ideas has largely been won. What was a gradual and is now a massive invasion of industry and commerce by new technologies is already taking us beyond the information society into the knowledge world – one in which the countries with the strongest educational base and the highest levels of skill will win the economic prizes. Crucially, it is recognised that high standards of education and skills are now a necessity for the mass of the working population, not just a privileged aristocracy of society or of labour. But there is widespread perception that education systems are not responding fast enough to change. A Dutch educationalist remarked recently that 'schools and teachers have changed less in the last ten years than almost any other sector – but they don't realise it'.

The practical challenges faced by education are not simply economic. In many countries, Britain among





them, rising prosperity has been accompanied by substantial social change, some of it problematical: family breakdown, changing attitudes to personal relationships, social exclusion. More generally, young people face an increasingly complex world where many old certainties have disappeared. The effects of these developments are very quickly felt in schools. They are places which often seem to bring together and focus the challenges posed by economic and social change. But the ability of schools to cope with the impact of these changes beyond their boundaries is in question. This is true in both the economic sphere – as expressed by the rising number of employers engaged in what they openly refer to as ‘remedial education’ of their new recruits fresh from school or university – and the social, as expressed in the view that schools are failing to educate young people to function in democratic society.

Halifax plc has defined a set of 10 core competences relevant to all grades within the organisation. This framework defines the key ‘attributes, characteristics, behaviours and knowledge exhibited by successful performers’. Their competences are in 3 categories: people, personal and process.

People: direction setting, developing self and others, communication, and working with others.

Personal: achievement orientation, customer orientation, and change orientation.

Process: forward thinking, judgement, and quality focus.

Halifax plc has also created a structured and rigorous assessment process. Each competence has 5 levels, each describing a different type of behaviour. These levels are progressive, becoming increasingly complex and demanding. In addition to assessing current progress and achievement the system is transparent, enabling participants to set goals for the future thereby providing motivation.

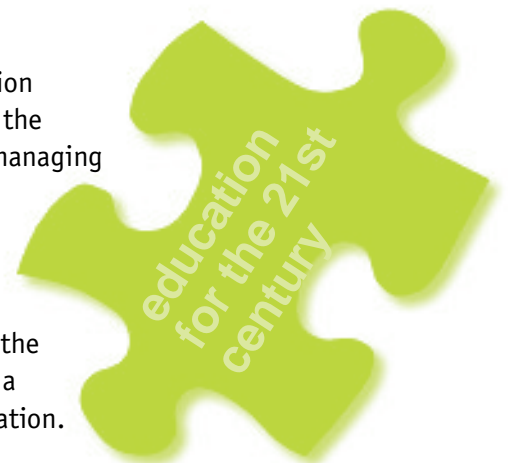
These problems will not go away. They are inseparable from the growth of the consumer society and the knowledge economy, rooted in the spread of technology which can shift economic activity round the globe almost at will and hence act as a destabilising force. They must, therefore, be addressed – at the right level. The problems faced by education in the coming decades have little to do with, for example the failings, real or assumed, of teachers. They are problems of strategy and purpose, and they are not peculiar to the UK. Across the industrialised world people are struggling to engage with the questions ‘what should the system look like in twenty years’ time? how should it be preparing young people for their adult lives?’

It is clear from our own consultations that no-one thinks education should look the same in twenty years’ time as it does now. There is widespread agreement on the need for a new strategy capable of transforming what young people learn and how they learn. There is no consensus on what such a strategy might look like, less because people disagree on the need for one than because there are few competing strategic visions to act as the focus of debate.

Should we be surprised at this? On one level, no. The sheer volume of education reform in the last twenty years has obscured the lack of debate on fundamental issues of purpose. The inevitability of incremental change on the ground – inevitable because of the sheer size of the education sector – has diverted attention from questions of strategy. Perhaps, too, an assumption of consensus on a set of common values underpinning education, but rarely if ever made explicit, has been so strong as to militate against any re-examination. At the level of vision, however, the absence of explicit strategy is damaging. At any time we need to understand why change is taking place, to be able to locate it in some framework of understanding. When the challenges ahead are, by common consent, more complex and problematical than ever, the need is all the greater. Without debate on purpose, can anyone be sure that incremental reforms are on the right path for the future? We are convinced that it is time to open our minds to the future and contemplate the scope for fundamental change. As we argued in *Redefining Work*, there is no point in preparing people for a world that no longer exists.

## The importance of curriculum

We start from the proposition, first, that the education system of the future must equip individuals to meet the demands and the challenges that will face them in managing their lives and their work; and, secondly, that these will be so great as to require a reappraisal of what it is that people should learn from their education. The importance of the school curriculum in this context can hardly be underestimated. Curriculum – the specification of what is to be taught in schools – is a powerful, perhaps the most powerful, driver of education.



*'Schools exist above all else to carry out a curriculum ... the nature and purposes of the curriculum [for secondary students] ... must be determined by what we believe 16 year olds should know, be able to do, and be able to do better than they could do at 11.'*

*Curriculum 11-16, HM Inspectorate of Schools, 1977*

It is not the only driving force; others, notably and increasingly information and communications technology, and the professional ethos of teachers, are important. But it is the underpinning philosophy and content of the curriculum which effectively defines the purpose of the system. The curriculum is therefore central to any overall strategy for developing the education system of the future, and to any answer to the question how young people should be prepared for their adult lives. It is potentially the engine for transforming learning.

In considering what kind of curriculum would be right in the future, we need to start from consideration of what we have now, how it works, and how far it could meet the challenges of the future without radical change. The school

curriculum is contained in a legislative framework, and in the documentation which fleshes out that framework. The legislation provides for the curriculum to be 'broad and balanced', to promote the spiritual, moral, cultural, mental and physical development of pupils, and to prepare them for the opportunities, responsibilities and experiences of adult life. The words have value as a broad statement of the aims of any education system. They are familiar to teachers and there is little disposition in the education world to challenge them.

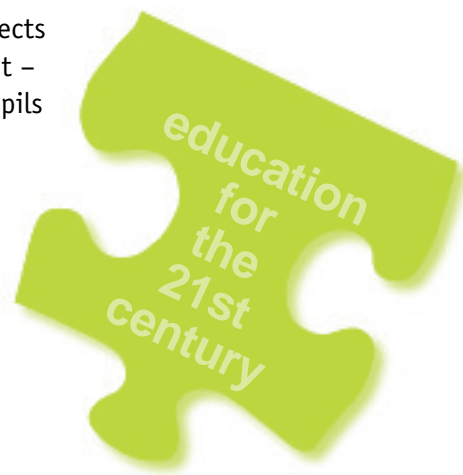
Their limitation is that they say everything and nothing. It would be hard to disagree with them. But there is nothing between this broad statement of aims and what the legislation says next, which is about matters of process: the structural elements such as subjects (some mentioned in the primary legislation, some not), attainment targets, subject orders and assessment tests. There is no indication of what the curriculum should offer to the students who will experience it; no statement of the expected outcomes of their schooling. There is no mechanism for determining which 'opportunities, responsibilities and experiences of adult life' should be prepared for at

school, let alone any method for ensuring that the delivered curriculum meets the statutory requirement to do this. Of course it would not be appropriate to cover in primary legislation all the detail of a curriculum, so the omission might not matter if there were clear statements elsewhere to fill the gap between broad aims and process. But there are not.

The formal curriculum is organised in traditional subjects and dominated by the specification of subject content – mainly the information which is to be imparted to pupils at the various stages of their school careers. Programmes of study focus mainly (but not exclusively) on inputs and process. The work schools have always done in developing students' competences for dealing with adult life has, in the strict sense, been at the margins of the curriculum and until recently, and then only in a limited way, not covered by assessment. Our consultations show there is unease among educators about this structure

*'The basic assumption underpinning the National Curriculum is that the present and future needs of pupils, and the needs of the society in which they live, are best served by the study of an arbitrary collection of predominantly academic subjects. This highly questionable assumption should be at the forefront of any serious thinking concerning future developments of the school curriculum.'*

*Gwyn Edwards, Goldsmiths College, in 'Take Care, Mr Blunkett', ATL, 1998*



*'The school curriculum has never been designed to achieve expressed aims, so schools are left to make the best of a bad job.'*

*Head of a community college*

and approach. It is not because there is no underpinning philosophy in the current curriculum. Rather, it is because the philosophy is implicit and not explicit, not much debated, and hard to explain to students. There is, as one headteacher remarked, an absence of transparency. And to the extent people understand the philosophy it looks, to many, outdated. These are matters of great concern, for several reasons.

As already noted, the education system is under unprecedented pressure from economic and social change, with every likelihood that those pressures will become greater; yet the traditional model is ill-adapted to respond to this. A frame of reference that is essentially about inputs does not lend itself readily to discussion of whether its achievements are meeting current and future needs.

Second, we live in a world where individuals have much greater expectations that institutions will account in some way for what they do, and provide a rationale for it. But there is no statement of the purpose of the traditional curriculum with which students and their families can readily connect. It is hard to explain what the curriculum is trying to do for young people. Its domination by subjects and statements of input make it a tool for the producers, not the consumers, of education. Attainment targets, whether demanded by statute or further mandated by government, are no adequate substitute for a real and shared understanding of what schooling is for. In some attainment areas, for example in literacy and numeracy, the targets are a fair proxy for the purpose of particular, narrow parts of the curriculum. But for most traditional subjects, the attainment targets are essentially self-referential and offer students little clarity on why they are pursuing them, and on what they are expected to achieve.

Third, the development of first an information and then a knowledge society challenges a curriculum model centred on the transmission from teacher to pupil of a quantity of information. The sheer explosion of information is hard to grasp. Where a century ago the volume is thought to have doubled in a century, and now is thought to double in a few years, some have calculated that by 2020 it is likely to double every 73 days. This will be happening in the adult years of today's youngest school students. In such a world, who could define adequately an information-based curriculum? The struggles over the weight of the National Curriculum would pale into insignificance by comparison with the task of updating the traditional model in such circumstances.

A final point, which should not be overlooked, is the attitudes of the 'customers' of education to their experiences, at whatever level. The very term 'customer' makes many people in education uncomfortable. It challenges deeply-rooted assumptions about educational process and relationships between teachers, young people, parents, employers and society in general. An explicit customer focus is rare in the education world.



Education is not a business in the normal sense of that word (although the principles of good business management are relevant to it). Schooling must be concerned with the broad development of young people into well-adjusted, happy and contributing members of civil society, and its functions go well beyond the instrumental. But that is not inconsistent with recognising that teachers are providers of a service, and that the nature of that service may need to change over time. Yet it is unusual to hear debate on the views of young people as ‘customers’ of education (the views of employers are much better known). The Industrial Society’s 1997 survey of some 10,000 12-25 year olds, *2020 Vision*, showed that the majority of young people believe their schooling should prepare them for the future, but is failing to do so. Their views should be taken seriously. If young people are not persuaded that their schooling is of value, then education’s essential function of transmitting the common culture and values of society is at risk as well as our chances of meeting the needs that young people themselves have identified.

## A curriculum strategy for the future

If we are to transform education so as to serve the needs of the future, a new strategy must be found. The reforms of recent years have focused largely on standards and structures. These are important – standards especially; but they have almost nothing to say about whether the system can help students become capable of meeting the more complex demands that will be made on them in the future.

The RSA believes that real transformation can only be secured if we are clear what it is students need to learn, that is what purpose education should serve. Reforming the curriculum so that it is competence-led, instead of information-led, is we believe the most effective strategy for doing this. In such a curriculum, the broad requirements of the current legislation would

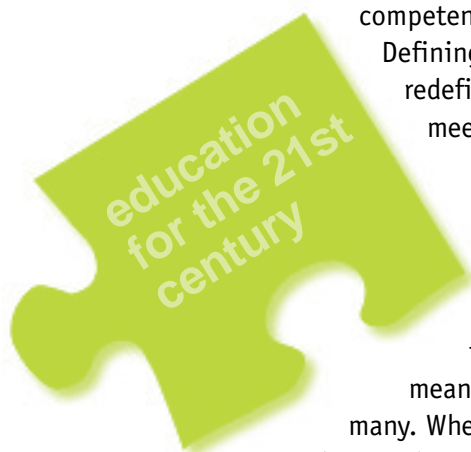


*‘We all live on the great, dynamic web of change ... If knowledge is an artefact, and innovation is the result of interaction on the web, then the way for us to better manage change is to become acquainted with the interactive process ... we might even consider changing our definition of intelligence. Instead of judging people by their ability to memorise, to think sequentially and to write good prose, we might measure intelligence by the ability to pinball around through knowledge and make imaginative patterns on the web.’*

*James Burke, ‘The Pinball Effect’.*



remain, but be implemented through a framework which states explicitly what students are intended to achieve, and the yardsticks against which they would be assessed. This curriculum would aim to develop in each individual the range of competences they will need to manage their lives and their work. Defining the necessary competence framework would effectively redefine what we mean by a well-educated person, as well as meeting the need for transparency of purpose.



Over the life of this project, we consulted extensively, among educators and others, on the principle of a competence-led curriculum and on what might be included in it, using a draft framework to focus discussion. The notion of reviewing what we mean by 'a well-educated person' was clearly attractive to many. Whether a competence-led curriculum is the right way to produce such a person was, unsurprisingly, another matter. Initially, the concept met a spectrum of reactions, from great scepticism to full support. Some found it difficult at first to discuss the idea at the level of principle; questions of practicality, in relation both to teaching and to assessment, loomed large. There were also problems of definition and language. There were different views about how far schools are already, in practice, engaged in competence development. Some claimed to be doing already what the RSA proposes. Schools have of course always had a role in developing young people's skills in areas such as communications, to say nothing of basic literacy and numeracy. But no school can currently operate a curriculum which is led by competence development, given the constraints stemming from current curriculum and assessment structures and requirements.

*'It won't do any more for our education system to lack a strategy ... teachers need to stop thinking in boxes ... the critical issues for education are about attitudes and behaviours ... we need a curriculum that will raise the aspirations of parents as well as of children ... educators need to be a bit subversive ... the curriculum must enable young people to take a leap in the dark ... I could run [the RSA] curriculum in my school straight away ...'*

*Comments from headteachers on the idea of a competence-led curriculum*

In discussion of the concept, it quickly emerged that the RSA's model was a challenging one for educators, since evaluating it requires evaluation, for comparison, of the conceptual basis of the present curriculum. For many within the school system this is unfamiliar territory, and obliged them to think through questions of aim and purpose they had perhaps taken for granted. It is significant (but not surprising) that most of the curriculum debate of the last decade has focused on its weight and complexity and has largely neglected its rationale.

However, we found very substantial support for the development and introduction of a competence-led curriculum; the majority concluded that it is both desirable in principle and feasible in practice, on the basis of the competence framework described in part 2 of this report. It was felt to offer a way of sharing with students a clear sense of the purpose of their schooling, with potential benefits in terms of engaging them actively in learning and possibly reducing disaffection. The process of

debate and development needed to turn the concept into a working model would be properly challenging for educational professionals, who needed to move away from viewing the curriculum primarily in terms of the inputs they make to it and instead to focus on what it is intended to offer to students. On the other hand, there is evidence that other countries are already moving down this road; for example, Poland, New Zealand, Norway, Hong Kong and parts of Australia and the United States. So there is practice to draw on.

A small minority expressed vigorous disagreement with the principle, preferring the traditional model. A significant feature of the consultation, however, was a sense of a real sea change taking place in attitudes; that many people in education are realising that the time for tinkering with the traditional curriculum is over. The RSA consultation overlapped with the Qualifications and Curriculum Authority's informal consultation on the National Curriculum Review, in which the QCA had itself raised issues about the aims and purposes of the curriculum. This clearly influenced some contributors to reflect on the differing philosophies represented by the National Curriculum and the RSA model.

## Achieving transformation

Our contributors were clear that notwithstanding the flood of change in schools in recent years, further change is inevitable. They could not imagine that education would look the same in twenty years' time as it does now. It could not be organised in the same way, have the same purposes, organisation, curriculum, teacher/learner relationships. Current initiatives, such as the standards agenda, command great support but are seen essentially as a first step. Education never has stood still, but the sheer weight and pace of what is and will be happening in the world around it is unprecedented and will create an irresistible force for change. A change strategy based on the RSA's competence-led curriculum, together with the full integration of ICT which the RSA also sees as an essential element of a restructured system, was the right way forward, above all because it springs from a clear set of principles about what education should be trying to do.


A change strategy would have many elements. First and foremost must be the setting of the overall vision, sharing it with the stakeholders in education – teachers, governors, parents, young people themselves, society in general – and building a consensus in support of it. Accompanying all these would be the re-organisation of the operations of schools, which would inevitably follow from the changes in



This table sets within a 10 year framework at least some of the development work needed to introduce the 'RSA Curriculum'.

	Consultation and Marketing	Competence Framework	ICT
YEAR 1	<ul style="list-style-type: none"> <li>● Consult stakeholders on strategic objectives</li> <li>● Begin marketing</li> </ul>	<ul style="list-style-type: none"> <li>● Refine the framework</li> </ul>	<ul style="list-style-type: none"> <li>● Initiate strategy development</li> </ul>
YEAR 2	<ul style="list-style-type: none"> <li>● Regular consultations on principles and progress</li> <li>● Marketing</li> </ul>	<ul style="list-style-type: none"> <li>● Develop detailed curriculum for each competence including contexts and illustrative material</li> </ul>	<ul style="list-style-type: none"> <li>● Complete strategy</li> </ul>
YEAR 3			<ul style="list-style-type: none"> <li>● Initiate procurement programme</li> </ul>
YEAR 4			<ul style="list-style-type: none"> <li>● Begin implementation of strategy</li> </ul>
YEAR 5			<ul style="list-style-type: none"> <li>● Complete implementation</li> </ul>
YEAR 6			
YEAR 7			
YEAR 8			
YEAR 9			
YEAR 10			

curriculum and technology. As many of those consulted pointed out, there should be no misunderstanding about this. The driving forces the RSA proposes to develop are so powerful that they would challenge almost every aspect of the way we run schools now. The fundamental change would be in the relationship between teacher and learner. More explicit understandings of the purposes and aims of schooling will bring opportunities for more open and individual negotiation of learning targets and for ending the link between age and stage. Greater use of technology opens opportunities for new pedagogies, new approaches to where learning is done, more flexible adaptation of curriculum to individual learning styles. These will prompt reappraisal of physical organisation

Schools	Teacher Training	Assessment and Qualifications
<ul style="list-style-type: none"> <li>● Prepare for interim programme of curriculum management</li> </ul>		<ul style="list-style-type: none"> <li>● Outline strategy</li> </ul>
<ul style="list-style-type: none"> <li>● Introduce interim curriculum management programme (TILE etc.)</li> </ul>	<ul style="list-style-type: none"> <li>● Initiate strategy development</li> </ul>	<ul style="list-style-type: none"> <li>● Develop new systems</li> </ul>
<ul style="list-style-type: none"> <li>● Pilot new curriculum material</li> </ul>	<ul style="list-style-type: none"> <li>● New training programmes begin together with retraining schedule</li> </ul>	<ul style="list-style-type: none"> <li>● Small scale testing of new assessment methods, not in schools</li> </ul>
<ul style="list-style-type: none"> <li>● Pilot tests of new assessment systems</li> </ul>		<ul style="list-style-type: none"> <li>● Continue development and testing, pilot tests in schools</li> </ul>
<ul style="list-style-type: none"> <li>● New cohorts in primary and secondary work to new curriculum</li> </ul>	<ul style="list-style-type: none"> <li>● Completion of first training programmes, begin training in new assessment methods</li> </ul>	<ul style="list-style-type: none"> <li>● Continue testing assessment methods</li> <li>● Begin R &amp; D of new qualifications (replacing GCSEs)</li> </ul>
<ul style="list-style-type: none"> <li>● Each new cohort works to new curriculum</li> <li>● Large scale tests of new assessment systems</li> </ul>	<ul style="list-style-type: none"> <li>● Continue retraining programme, continue training in assessment methods</li> </ul>	<ul style="list-style-type: none"> <li>● Testing in schools of assessment methods</li> <li>● Small scale testing of qualifications</li> </ul>
<ul style="list-style-type: none"> <li>● Evaluation of new curriculum</li> </ul>	<ul style="list-style-type: none"> <li>● Continue training in assessment. Begin training for new school qualifications</li> </ul>	<ul style="list-style-type: none"> <li>● Begin training for new qualifications</li> </ul>
<ul style="list-style-type: none"> <li>● All schools to pilot new assessment methods</li> </ul>	<ul style="list-style-type: none"> <li>● Ensure all teachers have been trained in new assessment system, increase training for qualifications structure</li> </ul>	<ul style="list-style-type: none"> <li>● Piloting new assessment methods in all schools</li> <li>● Small scale testing of new qualifications in schools</li> </ul>
<ul style="list-style-type: none"> <li>● Test new qualifications structure</li> </ul>	<ul style="list-style-type: none"> <li>● Continue training in assessment system.</li> </ul>	<ul style="list-style-type: none"> <li>● Further development work on assessment methods</li> <li>● Large scale testing of new qualifications</li> </ul>
<ul style="list-style-type: none"> <li>● All students now working to new model</li> </ul>		<ul style="list-style-type: none"> <li>● First secondary cohort takes new qualifications</li> </ul>

and patterns of attendance, of the school day and the school year. A new approach to assessment would be needed. In this model, the professional demands on teachers would be greater than in the current system, and important questions will emerge about their training and development, the level of support they will require, and the balance between professional and para-professional resource.

Faced with change on this scale, our consultations confirmed the need for – and inevitability of – long gestation and preparation times. Our estimate of a ten-year preparation and transition period was felt to be adequate but not generous. The

table indicates what would need to be done and when. Careful initial planning, so that all concerned were aware of the process and, broadly, what they could expect when, would generate support from those who would be affected – provided the necessary marketing, directed at all the stakeholders, extended both before and after the ten year period.

There would be some key principles and issues: putting the interests of students first, throughout the process; providing adequate time for the mass of preparatory work, including the development of new pedagogies, new curricula and support material; guaranteeing the necessary investment throughout the process; giving professional teachers the prominent role they should play in developing the system. Some of the most important decisions would concern the point at which students would begin to learn through the new curriculum. On this, we concluded that from the second year of the process an interim strategy for curriculum organisation should be put in place, with the new cohorts entering primary and secondary schools in the fifth year of the changeover being the first to embark fully on the new curriculum.

The consultations also identified substantial barriers to change. High on the list were the attitudes of teachers and of politicians. Many people, inside and outside teaching, see the teaching profession as combining an innate conservatism (often for very good reasons) with a frequently-abused readiness to respond to the demands governments placed on them. Securing the support and the understanding of teachers would be critical – but it was clear that a well-articulated strategy and rationale for long-term development would go far in getting this. In different ways, conservatism was seen as characteristic of politicians who now played a much more active role in calling the shots than in the past. No-one thought this likely to change.

We concluded that underpinning these apparently contradictory comments was a realisation that, as we identified earlier, the very concept of long-term, planned – that is, strategic – system change has been lost sight of in recent years, when much education reform has seemed to be done ‘on the hoof’, without a clear vision of the model it seeks to implement. But given the widespread unease within and outside education about the nature of the challenges we now face, and the perceived deficiencies of the present system, the RSA believes that a strategic approach is well overdue. In the end, securing such change is a matter of political will. Politicians, too, need to answer the question ‘what kind of education system will we have in twenty years’ time?’



## Next steps



We believe that our work has made the case for a radical restructuring of schooling, and uncovered a substantial volume of support for a long-term change strategy built on a new philosophy of curriculum. The plans we have outlined are intended to put in place a curriculum model that would do more, perhaps, than anything else to produce the right answer to our starting questions: what should education look like in twenty years' time? how should we be preparing young people for the future?

The vision that underpins the RSA's proposal is clear. We want an education system that will help every young person develop to the best of his or her ability the competences needed to become a successful, active citizen; to be able to contribute their creative and other talents to their work, their families and to society. We want them to understand why every aspect of their education is important and why they are being asked to prepare themselves for adult life in a particular way; that their education is about both essential competences and developing their capacity to enjoy life and to value learning for its own sake.

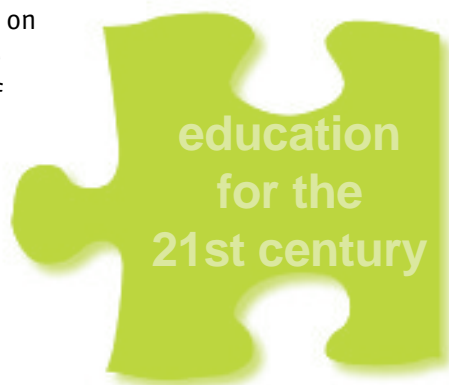
The schooling system that delivers this will look very different from the one we have today, the more so when combined with the full integration of ICT that we also want to see. We look for schooling which not only values and develops the unique abilities of every student, as a matter of principle, but which can do so in practice because the curriculum values all those abilities and education resources and practice are much better able to foster them on an individual basis than any school can now. This will be a flexible system which makes much more efficient and effective use of the investment in it, by exploiting the capacity of technology to enable young people to learn in places and at times other than the current conventional school times and classrooms; a system which encourages students from an early age to take responsibility for progressing their own learning, and offers the support to make this work successfully. It would be a system which uses the talents of its professional practitioners more effectively than we do now, and respects their judgements.

Our vision is a long way from the reality, as opposed to the rhetoric, of education today. The extent of the cultural change required to implement the vision can hardly be underestimated. The notion of accountability in respect of purpose is not one that has been prominent in education debate and exchange with the wider world. The changing relationship between teacher and learner that the RSA sees as an integral part of a reformed system challenges deeply-rooted attitudes. We believe this relationship will inevitably change as we move into the knowledge society; we can already see it happening as, for example, the Internet gives students access to more information than a teacher may have acquired. For all the recent initiatives, schools remain backward in their access to and exploration of the potential of technology to support learning. Challenges as fundamental as these are best managed rather than accepted passively and incomprehendingly.

We believe that working towards a new understanding of the purposes of school education, articulated through a new philosophy of curriculum, offers the best opportunity for engaging with the necessary cultural change. It starts the change process where it should start, namely at the level of principle. And as this report argued earlier, the power of curriculum as a driving force in education is so great that it is, simply, the right place to start.

What should happen next? Without doubt, there is a need for substantial public debate on where we should be taking the education system over the next twenty years. The level of discussion about education must be raised to focus on its strategic direction and purpose. This means moving well beyond current reform programmes, which are concerned, for good reasons, with much shorter time horizons. Out of a strategic debate may emerge more than one vision of the future. That would be a positive advantage; not because the RSA lacks faith in its own but because the exchange of ideas is the most productive way of moving forward. And once there is a vision, the task of sharing it nationally, and building support and consensus, can begin. It would then become possible for those responsible for education to plan consciously for the long term.

The RSA is committed to continuing its work on education strategy. Resources permitting, we plan to work with a number of schools and if possible some Education Action Zones which are keen to pilot and develop, as far as they can, the concept of the RSA curriculum. We aim also to work with influencers and opinion-formers in and beyond education to open minds further to the debate that is so essential to the nation's future.



The RSA is pursuing other projects whose aims and findings are relevant to the issues raised by **Redefining the curriculum**.

The RSA Arts programme is currently focusing on education. An independent study for the RSA by the National Foundation for Educational Research has looked at the effects and effectiveness of an education in the arts, asking how far sustained involvement in them could develop what are in effect competences addressed in this report. The NFER identified twelve effects resulting from an arts education, recognised by teachers and students. These can readily be linked with the competence framework. Thus the social skills of dealing with people include how to deal with and manage others, how to manage personal and emotional relationships, how to communicate effectively, teamwork, negotiation, co-operation. All these could be seen to be developed through the arts. Similarly, NFER noted the arts as impacting positively on young people's cultural awareness and perspectives. In particular, the arts were seen to have an important role in shaping attitudes in a multi-cultural and multi-ethnic society, and as a means of shaping and incorporating the different cultures that can exist within a school. Here, in effect, the research has demonstrated the scope for using arts as a subject to develop a wide range of competences.

Principally focusing on the promotion of practical food education in the National Curriculum, the RSA's *Focus on Food* Campaign is seeking to establish hands-on food education for all young people in primary and secondary schools.

The Campaign is committed to providing young people with key skills and competences to use throughout their lives, in addition to acquiring culinary skills. *Focus on Food* recognises opportunities to cover these in practical food work and through the cross curricular links made in a number of subjects. Examples include communication which is developed through exchange of ideas in discussion, reading and writing, reading different documents, identifying key points and synthesising of information and through social activities such as sharing a meal. Similarly, team working and problem solving are key skills pupils develop and practise during food work. Information technology, used appropriately in food work, becomes a tool pupils use to process information and to represent it in the most effective ways possible.

Learning how to learn and building on what has been learned, managing information, dealing with people effectively, understanding ethics, values and cultural diversity are critical to the Campaign's success as a food education initiative and as a magnifier of learning through a number of subject disciplines.

The RSA is also aware of other initiatives which are currently happening in schools. One, by Catherine Williamson, uses Art Workshops to explore positive aspects of students' lives. Feedback from students and others attests to the benefits in terms of self esteem, ability to articulate, sense of responsibility and self confidence.



## From competences to curriculum

A central aim of the project was to develop a framework of competences to underpin a new curriculum, and to consult interested individuals and organisations on it and on examples of curriculum statements or outline programmes of study of the kind which would be needed to translate the competence model into practice.

A first round of consultations on the framework was reported in *Redefining the curriculum*, published in March 1999, and a second round has now been undertaken. The consultation did not produce arguments to convince the project team that its approach is mistaken; rather, as we have already noted, there was strong support. We believe that the RSA curriculum has a much better chance of meeting the educational needs of the world we can expect to emerge in the next twenty years. Our final framework, which takes account of issues raised, is set out in the table which follows.

A number of issues were raised in the latest consultations. First, the earlier versions of the framework were felt to be too focused on process rather than outcomes. Instead, it should be presented in terms that would make sense to students, parents and teachers as a statement of what students would be able to do when they had completed their schooling. It should also derive visibly from the RSA's definition of competence, namely the ability to understand and to do. This would be consistent with the principles discussed earlier. It was noted that in due course, the process of translating the framework into programmes of study and assessment would have to consider questions of differentiation as to age and stage of education, and ability levels. That is of course the case, but the present project has not attempted to explore this. The final version of the framework meets (we hope) the fundamental concern for the importance of outcomes.

Second, some felt that the weight and importance of the different competences varied (as in practice they certainly would), and argued for some arrangement in priority order. It was harder to find consensus on what that order might be, except perhaps in relation to Competences for Learning which are generally accepted as the foundation stone for the whole approach. As to prioritising the other groupings, there is often confusion in practice between 'low priority' and



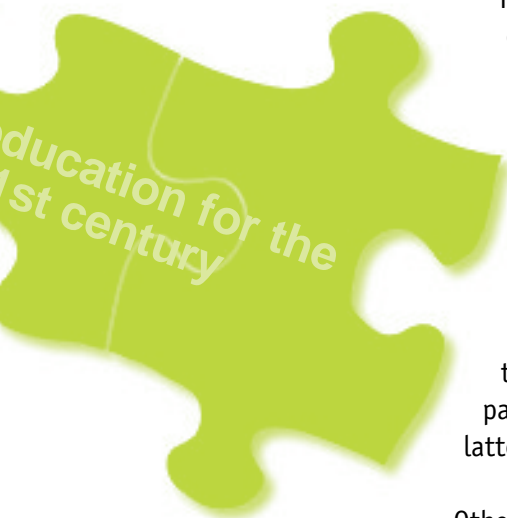
'no priority'; so we do not think ranking them is appropriate or feasible. Rather, we believe that every student should as a minimum have an entitlement to schooling that would develop competences within each of the five groupings, and that there are very strong arguments for saying that every one should be taken forward for every student. That does not mean that all the competences would be pursued simultaneously throughout compulsory schooling; careful management of progression and curriculum loading would be as important for this as for any curriculum. Nor does it imply that every student would reach the same level of attainment in each competence, or attempt to do so; that would be an issue for schools, students and parents in the context of arrangements for differentiation.

Third, there was a wish that the framework should find some way of reflecting and valuing the different ways in which students learn, as well as stating what they are expected to learn; and that there should be constant emphasis on what should be learnt, rather than on teaching. The contrast was made with the programmes of study within the present National Curriculum, which are expressed primarily in terms of what is to be taught. There are limitations on what can be done at the level of the overall framework, but again the final revision attempts to reflect this wish. There is nothing in it to prescribe any particular style of teaching or learning; on the contrary, we think the framework would open up to teachers a wide and proper scope for the use of their professional judgement.

Fourth, the most contentious issues raised concerned the relationship between a competence-led curriculum and subject content. The RSA curriculum would rely on the careful deployment of what is generally termed subject content as the medium through which competences are developed. It would be the development by students of the competences, rather than the acquisition of subject knowledge, which would be assessed at appropriate stages. How the relationship between the two should be managed is a complex issue and raises questions both of principle and practice.

There are clearly some in education who cannot envisage a curriculum organised other than on a traditional subject basis. They point to the subject orientation of teachers, to perceived difficulty in delivery and to public familiarity with subject organisation as reasons why the RSA model is impractical or unacceptable. But these are contingent arguments rather than points of principle. They did not strike us as especially strong; the RSA is looking a decade or two ahead as the period over which a new curriculum model would be developed and introduced, a period over which these important questions could be addressed. The main objections of principle appear to reflect a fixed view that the purpose of education is the transmission of a corpus of knowledge and not the inculcation of particular attitudes or behaviours. Yet every school is in practice active in the latter, as is evidenced from their statements of values.

Others are supportive of the introduction of competences into education; some point to recent work such as that carried out through the London Enterprise Agency's Pathways Project as an alternative way of securing them. Pathways set out to define a set of student outcomes, in terms of what pupils should know and understand to be prepared effectively for working life, and to demonstrate how these could be developed within the current curriculum. Essentially, it is a structure for organising teaching and learning – a curriculum management tool,



not a curriculum. The approach is being extended in the DfEE's current TILE project (Towards Improved Learning for Employment) which is testing a broader range of student outcomes and seeking to identify common qualities and attributes within them. These projects probably go as far in the direction of specifying competence outcomes as it is possible to do within the constraints of the current curriculum. But they do so, by definition, within its philosophy.

These varying viewpoints must be contrasted with the strong support we have received from many individuals and organisations, within and beyond the education service, for achieving strategic change through a competence-led curriculum. Some stemmed from disillusion with the ability of the present curriculum to engage many young people and a belief that it is of declining relevance and usefulness as the world beyond education changes. This is reinforced by the growing difficulty of convincing some students of its value and relevance, especially when employers are voicing disillusion with the quality and nature of the educational attainments of new entrants to the labour market, regardless of level. A very strong view was expressed that the domination of traditional subject content was so strong that no attempt to graft competence outcomes onto it could ever be successful; this would be true both of teaching and assessment. Only a complete break and the introduction of a new curriculum philosophy would secure the desired results.

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## The Competence Framework

The RSA Curriculum consists of five broad categories.

Each of these contains a number of individual competences, which are expressed in terms of what a school student could achieve having progressed through the curriculum.



Students would:

- understand how to learn, taking account of their preferred learning styles, and understand the need to, and how to, manage their own learning throughout life
- have learned, systematically, to think
- have explored and reached an understanding of their own creative talents, and how to make best use of them
- have learned to enjoy and love learning for its own sake and as part of understanding themselves
- have achieved high standards in literacy, numeracy, and spatial understanding
- have achieved high standards of competence in handling information and communications technology and understanding the underlying processes.



- Students would:
- have developed an understanding of ethics and values, how personal behaviour should be informed by these, and how to contribute to society
  - understand how society, government and business work, and the importance of active citizenship
  - understand cultural and community diversity, in both national and global contexts, and why these should be respected and valued
  - understand the social implications of technology
  - have developed an understanding of how to manage aspects of their own lives, and the techniques they might use to do so – including managing their financial affairs.



- Students would:
- understand how to relate to other people in varying contexts in which they might find themselves, including those where they manage, or are managed by, others; and how to get things done
  - understand how to operate in teams, and their own capacities for filling different team roles
  - understand how to develop other people, whether as peer or teacher
  - have developed a range of techniques for communicating by different means, and understand how and when to use them
  - have developed competence in managing personal and emotional relationships
  - understand, and be able to use, varying means of managing stress and conflict.



- Students would:
- understand the importance of managing their own time, and have developed preferred techniques for doing so
  - understand what is meant by managing change, and have developed a range of techniques for use in varying situations
  - understand the importance both of celebrating success and managing disappointment, and ways of handling these
  - understand what is meant by being entrepreneurial and initiative-taking, and how to develop their capacities for these
  - understand how to manage risk and uncertainty, the wide range of contexts in which these will be encountered, and techniques for managing them.



- Students would:
- have developed a range of techniques for accessing, evaluating and differentiating information and have learned how to analyse, synthesise and apply it
  - understand the importance of reflecting and applying critical judgement, and have learned how to do so.



# Making the model work



Issues of practicality were, properly, of concern to those we consulted. Practising educators need to understand how the RSA curriculum could be organised and put into practice.

Clearly, the practical work of developing it to the point where it could replace the present curriculum is substantial. Project resources did not allow the production of a full curriculum for all the competences in the framework. But the project team developed and consulted on the detail of two competences in the RSA curriculum: from Competences for Managing People, the communications competence; and from Competences for Managing Situations, the management of risk competence. Further work was also undertaken on information technology, which is part of the Competences for Learning. Our consultations were the basis for conclusions about the structuring and operation of the curriculum at the practical level, and this section reflects the points made to us.

What would the teacher and student see, or need to see, if setting out to implement the RSA curriculum? The model is illustrated below. First, of course, the five **categories** with the specified **competences**; this overall framework (pages 18-19) would stand as a statement of student entitlement underpinning the whole of the compulsory stages of schooling.

There would be a brief statement of **rationale** for each competence – an important recognition of the principle that the purpose of the curriculum should be explicit rather than, as now, mainly implicit. It would support informed debate about curriculum priorities and loading, and help those charged with responsibility for devising and maintaining the framework with those tasks.

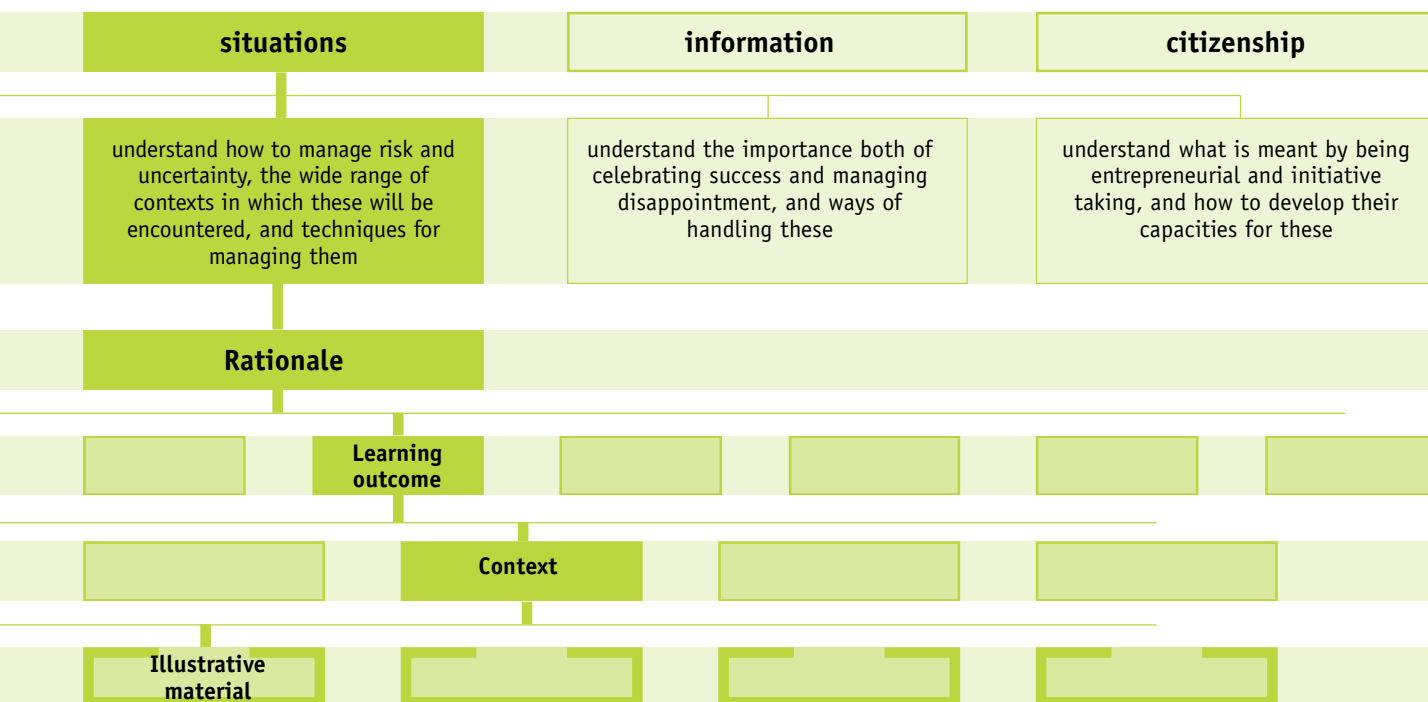
Categories	learning	people			
<b>Competences</b> Students would	understand the importance of managing their own time, and have developed preferred techniques for doing so	understand what is meant by managing change, and have developed a range of techniques for use in varying situations			
<b>Rationale</b>					
<b>Learning outcomes</b>					
<b>Contexts</b>					
<b>Illustrative material</b>					

A practical aid for teachers, and a motivational tool for students, these rationale statements would be public documents; this is important in the context both of public debate and understanding about the purposes of schooling, and of schools' accountability to parents and local communities.

This would be followed by a statement of the **learning outcomes** each student would aim to achieve at some point in compulsory schooling, expressed as elements of each individual competence. These would be the basis of the assessment system (which is discussed later). Progression and differentiation by ability, age and stage would be based around these elements. Thus learning skills in literacy, numeracy and ICT would almost certainly feature, at increasingly high levels, throughout the period of schooling; other components would be introduced at different points.

For each competence there would be a number of **contexts** which would act as frameworks for teaching and learning. These are the crucial vehicles through which competence development and subject content would be linked. There would be national guidelines on linking competences, contexts and content – the mechanism for ensuring proper coverage of subject material as well as competences across the compulsory years of schooling as a whole.

To illustrate how the system would work: management of risk could be learned through contexts concerned with the changing world, personal and social safety, safety and health at work, environmental safety, food safety, and financial risk and uncertainty. Communications could utilise contexts such as the personal world, the world of work, the social world, the world of media and the political world. For each competence, there would be a mandatory core of contexts. Teachers would be free to introduce others (they would need to consider the overall weight of the subject content involved). Individual schools would determine their own policies on the range of contexts to be added to the mandatory core, within broad national guidelines designed to ensure proper breadth of coverage for every student.



Each context would specify the areas of content on which teachers and learners would draw; thus, in communications, the 'personal world' context might utilise material from English literature and language, on religious education, and on science. In risk management, the 'health and safety at work' context might utilise material from science, history, economics and geography. Teachers would use their professional judgement in selecting subject material, which would not be specified for them, but would be required (by broad national guidelines) to draw on the full range of subjects specified for each context. If the mandatory contexts for communications included the use of history and of performing arts, the teacher would decide how to do this; but could not decline to draw on them.

Finally, for each context there would be available, primarily to teachers, substantial amounts of **illustrative material** to be drawn on in delivering the curriculum – in effect, programmes of work. None of this material would be mandatory, and indeed it should be available in such quantities that it would be obvious that teachers are expected to use their professional judgement in choosing from it rather than attempting to cover it all. It would be arranged for use with students at different stages of development. A special feature would be the provision of model specifications showing how selections could be made from the illustrative material to ensure satisfactory coverage of content throughout the compulsory stages. These would be useful management tools for teachers and for individual schools and, ideally, for primary schools and the secondaries they feed, improving curriculum planning and the management of transitions across the school years. But neither schools nor teachers would be obliged to follow one of these models; their obligation, in the national guidelines, would be to ensure balanced coverage.

How these elements fit together in a particular case is illustrated in the material developed by the team for the managing risk competence, part of *Competences for Managing Situations*, which is set out in the Annex. The descriptions of subject content are, for ease of understanding, expressed in terms of current subjects. In practice, this is not always a helpful approach, as the range of material to support the RSA curriculum is likely to be wider than the present subject base.



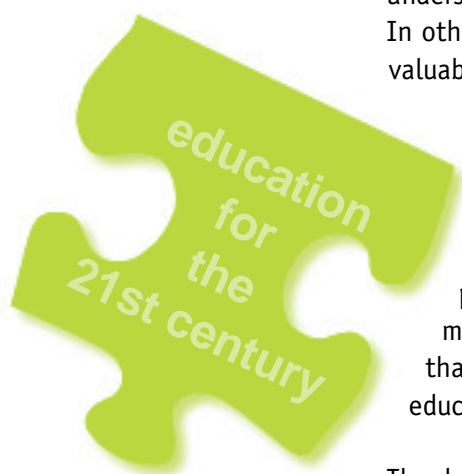
# Assessing a competence-led curriculum

Radical reform of the school curriculum necessitates a review of the system of assessment that goes with it. We sought views on the principles to be followed in a new approach, while arguing that these were unlikely to differ from those which are already well-understood: professional judgement, transparency of standards, and appropriate arrangements for moderation and consistency. Were there further principles to be made explicit? what new techniques of assessment were likely to be needed? is there a place for ICT in assessment? what experience is there to build on, what can be learned from, for example, the use of records of achievement, and what would be the implications of change for teachers?

The most fundamental issue raised with us concerns the purpose of assessment. It can serve several ends: as a means of recognising the achievement of the individual student, or of the school, or of teachers; or as a direct aid to teaching and learning. The first of these – recognising student achievement – was accepted by all as the prime objective, and the last as a highly desirable (and in a properly managed system, inevitable) adjunct. Contributors believed that assessment can potentially motivate students and teachers, and should be a genuinely developmental process. In this way it would lay the foundations for recognition of the achievement of teachers and of schools as a whole.

We found substantial consensus on the other principles mentioned above, and on the absolute need for trust in the system, the maintenance through it of respect for the intrinsic value of education, and a sense of ownership (and hence understanding of purpose and mechanics) on the part of all the stakeholders: students, parents, teachers, employers, government. Overwhelmingly, those consulted wanted assessment that focused on what students are able to do, not what they cannot; and that tested both what students can do and what they understand (something the RSA sees as intrinsic to its definition of competence). In other words, many saw a new assessment system for the RSA curriculum as a valuable move away from the use of qualifications and examinations as a sifting mechanism which in practice impedes progression for the individual. It was recognised that reform of the qualifications structure must follow subsequently; this must ensure that the system provides students with something they can value as a proper reflection of progress, and offer currency – that is, recognition beyond the world of education. There was potentially an international dimension to this; if our system diverged too much from others, currency would be reduced. On the other hand, it is clear that other countries are incorporating competence development into their education systems; the RSA curriculum would not be unique.

The debate on techniques of assessment echoed the views expressed on principles. The system must assess what is valued, rather than value what can be assessed. Inevitably there would be different measures for different kinds of activity. A curriculum based on competence development and the use of conventional subject content must of course strike a balance in this, just as it



*'Assessment is the real 'secret garden' now – the system hides a lot of ignorance. The process should help teachers as well as students learn; the process should be shared.'*

*Head of a community school*

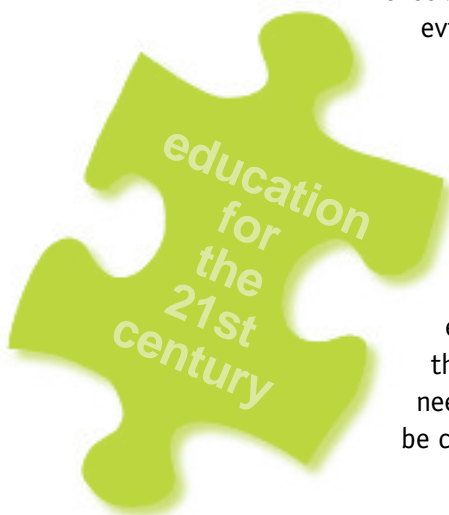
would strike a balance between the two in teaching and learning. In practice, a matrix approach would be needed for both purposes.

Our contributors argued strongly that formative assessment must be a major principle of the new system. Some argued it should be the only one, and was the only possible way of assessing competence, though most saw a need for summative assessment at particular stages and given the continued need to assess progress with subject content. Written tests would clearly have their place, especially in the latter, but there should be heavy emphasis on the value of

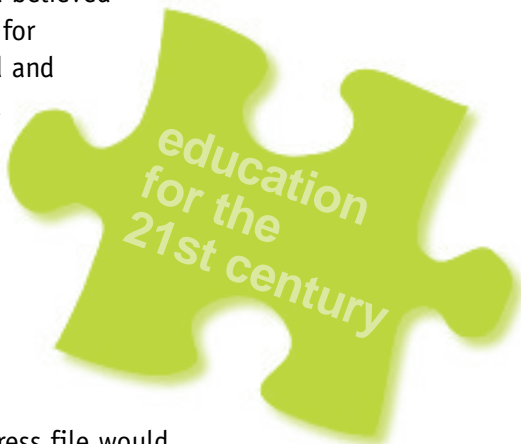
collecting, reviewing and reflecting on evidence. Project work would be an important element of both learning and assessment. Assessing competence demands the observation and assessment of behaviours. This is not new for schools, at least in an informal sense, but would play a larger part. It was argued there was no difficulty for a good teacher in creating opportunities within schools to do this.

Clearly, such a system would rest ultimately on professional judgement. In this it would be no different from other systems, including current ones. Some felt that it should be primarily for teachers, working together both at the level of the individual school and more widely across the education system, to develop manageable criteria for measuring progress – although the interests of external stakeholders must also be recognised in a practical way. Others argued – and the RSA agrees – for a much larger external element, in parallel with a similar external element in the specification and maintenance of the competence framework itself. A national framework of standards is essential, and only nationally-based research will allow the creation of a well-founded framework. Either way, assessment for the new curriculum should move in the direction of the German system which successfully operates on the basis of professional judgement.

Accepting this approach from the outset would be important. What was described as 'bogus objectivity' must be avoided; assessment could not be done through checklists. A variety of techniques would be used, with the collection of evidence a central principle. This would apply both to students and teachers. The value of reflection, both by students and teachers, must be recognised as a powerful learning tool for both, and used systematically. Teachers would be required to use evidence to support their own judgements and there should be a collective approach to the making of overall assessments. This, together with appropriate internal and external moderation, would provide objectivity. Peer assessment also had a part to play (there is evidence that students are harder on themselves and peers than are their teachers, though they do not easily recognise progression and need to be shown it). Parental involvement in assessment should also be considered.



As to practical tools, many of those consulted believed that the individual action plans now required for students with special educational needs could and should be utilised for all students. This would fit well with a more intelligent use of the record of achievement or progress file model for capturing evidence of progress in formats which could be used effectively both by teachers and students. The file would allow better use to be made of non-school activity such as work experience, which was largely wasted at present as far as assessment is concerned. For some, a well-constructed progress file would substitute wholly for all existing assessment and examination systems, provided of course that the necessary investment was made in developing and introducing it. It would be an ideal vehicle for introducing individual target-setting, which is widely supported as a motivational tool, especially for boys. This would clarify what was to be learnt, allow much greater individualisation of the curriculum and overcome the difficulty that current systems effectively demanded that all students progress at broadly the same rates. It would also deal with the undoubted feature of a competence-led curriculum, that some students would inevitably make little progress in some areas until they had left the school setting. This was an issue of progression, not of success or failure.



Another practical issue is how far schools, and individual students, should use the whole of the competence framework and how far they should be allowed to select from it. Some felt this question would be easier to answer once sufficient technical work has been done to develop a fully-differentiated curriculum. The RSA, as noted earlier, believes that the framework should stand as a statement of individual entitlement. It should, however, be left to schools to determine how to organise its utilisation within their own sets of values. Schools should certainly use the whole framework to support the management of transitions within and between schools.

The new system would take time to introduce. Substantial research and testing are needed to develop assessment methods, and to introduce well-thought out arrangements for progression and differentiation. Both the new curriculum and its assessment have enormous implications for the way teachers work - not least in terms of the opportunities they offer for new ways of organising learning both in and outside schools. Very substantial teacher training would be needed. An assessment system that prioritised professional judgement, and supported that by proper investment in professional development, should be introduced in stages with clear milestones for the completion of the process. Using the progress file would lend itself well to applying information and communications technology to the recording and presentation of



evidence. ICT would help in the technical processes of moderation, especially beyond the level of the individual school, and hence in the achievement of consistent standards.

Contributors recognised that this new assessment system would need to be presented to stakeholders with as much care as the new curriculum itself. Issues of currency and, particularly, of rigour would have to be covered. This would be made easier if the necessary investment was pledged, and a carefully-phased implementation process put in place, from the outset. Resources should not be an issue. Assessment already absorbed substantial amounts of public money and this should be redirected to introduce and maintain the new approach. Above all, no aspect of it could work without a systematic effort to re-establish the professionalism of teaching; a task involving teachers, their representative bodies, government and society as a whole, and which could not be done quickly.



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What are young people being educated for?

We, as a country need to be ambitious with our aims for education. Our competitive advantage depends upon it.

The RSA is in a unique position to stimulate debate and to open the minds of government, education and all of society to the need for systemic change. Whilst other bodies discuss the curriculum, the RSA proposes to re-engineer education to focus on competences\* and embrace technology.

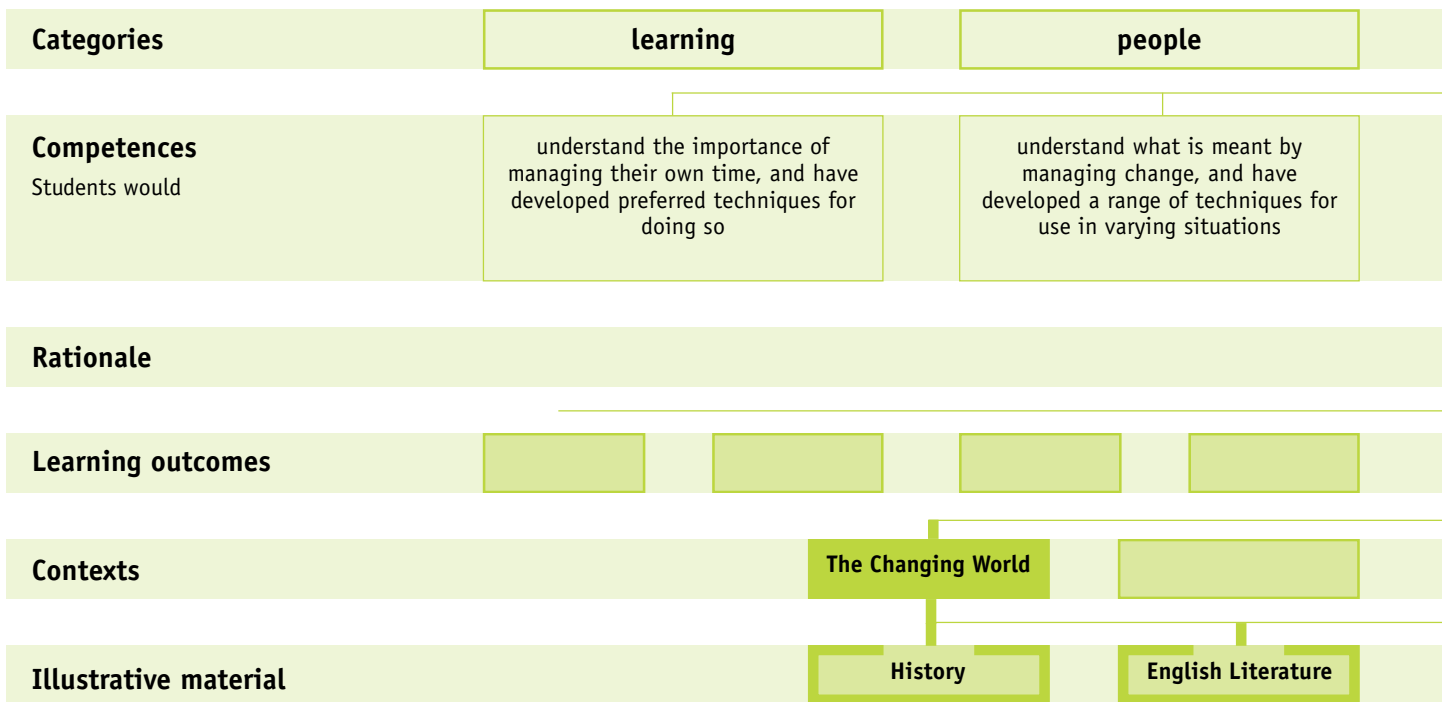
This is the start of a radical and philosophical debate on what education must achieve in the 21st century: What will it mean to be well-educated? How do we deliver the skills, knowledge and understanding to equip everyone for success? How can we make a reality of the 'lifelong learner'?

By 2004 the education system will be ready for more dramatic intervention from government. The agenda for action and the possibilities for change begin here.

\*competence: the ability to understand and to do.

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# Annex

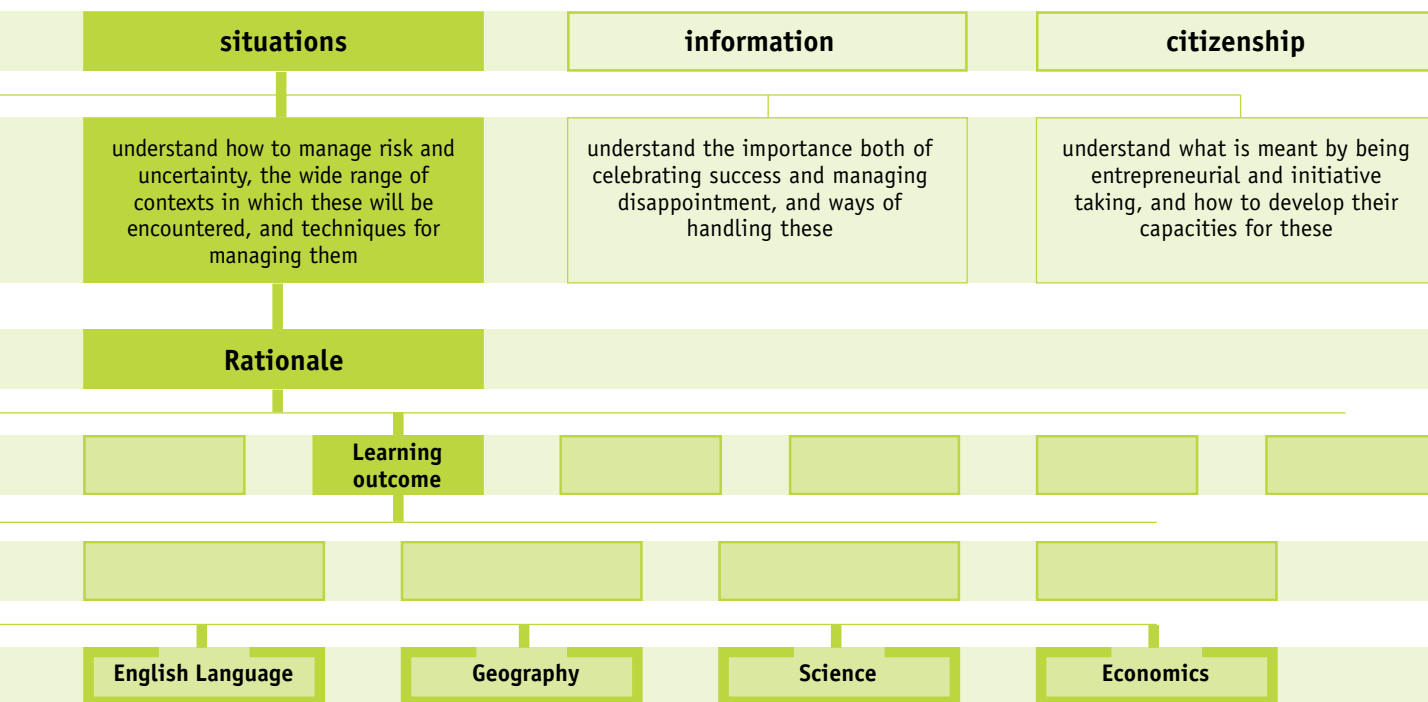


## Category **Competences in managing situations**

**Competence** Understand how to manage risk and uncertainty, the wide range of contexts in which these will be encountered, and techniques for managing them.

**Rationale** The handling of risk and uncertainty is a feature, at some time or another, of the life of every individual. Everyone is faced, from a very early age, with issues of personal safety and comfort. Learning to understand the impact of risk and uncertainty on others and on situations is an important element of developing maturity. But risk, hazard and uncertainty exist, and have to be faced, in many other contexts. They can be managed with a variety of techniques and approaches, many of which are transferable between situations. It is also desirable that students are able to avoid irrational responses to risk.

This competence aims to familiarise students with a wide range of contexts in which risk, hazard and uncertainty might be encountered, to introduce techniques and approaches for managing them, and to support students in developing understanding of and the capacity to use all the learning outcomes of the competence so that they are able to make their own decisions about risk.



**Learning Outcomes**

- ability to recognise the existence of risk, hazard or uncertainty in a range of contexts
- ability to understand the difference between risk, hazard and uncertainty and to distinguish between them in particular cases
- ability to make decisions about, or participate in making decisions about risk, hazard or uncertainty, including how to negotiate what level of risk is acceptable in different contexts
- ability to identify and evaluate options for managing risk, hazard and uncertainty
- understanding of sources of information relevant to managing situations identified as involving risk, hazard or uncertainty, and how to access and assess them
- ability to seek advice from appropriate sources – people and places
- understanding that information is given to people to help them protect themselves against risk
- ability to understand one’s own reaction to risk, and assess one’s own capacity, and that of others, to deal with given situations
- ability to assess the consequences of risk and hazard to oneself, to others, to an organisation, to society and the environment
- ability to apply the above in a wide variety of settings and situations.

## Contexts and Illustrative Material

A range of contexts should be used to demonstrate to pupils the potential for the existence of risk, hazard and uncertainty in many differing circumstances, to establish the concept that common principles may apply in a variety of situations and to provide opportunities for pupils to master the learning outcomes listed above. The emphasis throughout will be on helping pupils to learn how to develop the learning outcomes for themselves by applying understanding and skill to consideration of how such situations may be managed.

Conventional subject content provides the medium through which competence will be developed. Pupils should be able to draw on a wide range of material selected to illustrate situations in which the learning outcomes of the competence may be discerned. Assessment will be based on the development and demonstration by the individual of their understanding of and capacity to apply each learning outcome.

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### Context: The Changing World

**Aim:** to provide students with an understanding of the speed and intensity of economic, social and technological change in the world they will live in, to appreciate its impact on individuals, families, businesses and society and to understand the main areas of risks, hazard and uncertainty likely to be encountered in their lives. This context thus provides some basic underpinning to development of the competence as a whole.

#### Illustrative Material

**History** - study of past periods of rapid change and their effects on societies and individuals. How individuals and governments have handled risk and uncertainty in specific historical contexts

**English literature** - examples drawn from writers of the present and past, and writing about the future, to illustrate for example the nature of risk and hazard and responses to them

**English language** - examination of the vocabulary of risk

**Geography** - changes in the distributions of populations and industry, impact of economic change on raw materials etc to demonstrate pace of change

**Science** - study of main technologies undergoing rapid change, and those expected to develop in influential ways; including ICT, biotechnology

**Economics** - models explanatory of change, economic and financial structures and organisations

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### Context: Personal and Social Safety

**Aim:** to enable students to develop an understanding of their responsibility for personal safety and safety of others; to appreciate how the actions of others can affect individual safety; to understand the nature of accident and approaches to managing situations of accident; and to understand issues of personal health and risk.



**Context: Food Safety**

**Aim:** to enable students to recognise the importance of food hygiene at home and beyond, especially in the context of food preparation; to help them understand the need for rules and regulations, and what they are.

**Illustrative Material**

**Science** - bacterial and other risks to health

**Economics** - the regulation of the food and allied industries

**Politics** - the challenges to politicians of individual and business interests; the ability of political structures to handle them

**Food technology** - learning health and hygiene rules in practice

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**Context: Financial Risk and Uncertainty**

**Aim:** to enable students to understand the regulatory framework and principles such as 'caveat emptor'; to develop understanding of individual and collective financial responsibilities both conceptually and practically; to help them understand available options for the provision of financial security; to develop understanding of the nature of investment, and how the potential of investment can be assessed.

**Illustrative Material**

**Mathematics** - basic statistical techniques, probability, concepts of interest and return

**Economics** - structure of financial regulation; the City

**History** - development of provision for personal financial security; the Poor Law, friendly societies and mutual assurance, growth of the welfare state

**PSE** - the social security framework and how it is likely to develop; implications for the individual and for families

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