



Guidance

Curriculum and  
Standards

# Key Stage 3

## National Strategy

# Key messages for teaching able, gifted and talented pupils

**Schools with  
KS3 pupils, LEA  
consultants, LEA  
strategy managers  
and line managers**

Status: Recommended

Date of issue: 11-2004

Ref: DfES 1036-2004

department for

**education and skills**

creating opportunity, releasing potential, achieving excellence



# Key Stage 3 National Strategy

## Key messages for teaching able, gifted and talented pupils

### Principles

Provision for able, gifted and talented pupils should:

- be treated as a whole-school issue;
- promote inclusion and equality of opportunity;
- focus on achievement, not just on attainment;
- offer personalised learning opportunities;
- encourage independence and self-assessment;
- offer extension in depth and enrichment in breadth;
- be monitored effectively at school and departmental levels;
- go beyond the school into wider learning communities;
- celebrate the excitement of excellence.

### Identification

Identification is not an end in itself; it is a means to the end of making appropriate provision. The broader the basis for assessing ability, and the wider the range of factors considered, the more likely we are to identify pupils of unusual ability. 'Gifted' pupils are defined in EiC as having evident high ability in academic subjects; 'talented' pupils have evident high attainment or latent high ability in a creative or expressive art or a sport. Many teachers use the term 'able' to describe these pupils more generally, since many pupils are both gifted and talented. Some schools keep a register of their identified able pupils as a tracking device, but it is important to remember that ability is not static: different pupils can emerge as able at different ages and stages and in different contexts and activities. Therefore teachers should be alert to the need to provide appropriate challenge and stimulation to various pupils as required, rather than only to those named on a register. Registers themselves should be flexible tools.

Effective provision addresses the needs of able but underachieving pupils, not just of those conventionally identified as able. Identification of able pupils is most effective where there is:

- systematic scrutiny of a range of information;
- articulation and discussion of the characteristics of high ability and potential in subject contexts;
- attention to the potential and performance of pupils in a diverse range of activities;
- special attention to groups likely to be under-represented;
- involvement of parents and pupils in the process.

## Pedagogy

Effective teaching is the entitlement of all pupils, but a focus on able, gifted and talented pupils can help to extend the teaching repertoire in ways that:

- add breadth (for example enrichment through a broader range of content, tasks and resources);
- increase depth (for example extension through complexity);
- accelerate the pace of learning within and across key stages;
- promote independence in thinking and learning;
- support reflection and self-evaluation;
- foster high expectations in teachers and pupils.

Teachers need to inspire enthusiasm, to act as catalysts and to build the confidence of able learners. This involves developing in their pupils a sound understanding not only of content, also of the ideas, approaches and importance of their subjects. Distinguishing characteristics of effective teaching for pupils of higher ability include:

- a high level of subject knowledge on the part of the teacher;
- sharing subject enthusiasm;
- an emphasis on creative problem solving;
- encouraging the growth of critical thinking;
- higher order concepts and terminology in the discourse of the discipline;
- a focus on meta-cognition;
- negotiating learning objectives;
- assessment for learning through dialogue;
- developing the skills for independent research;
- risk taking by teacher and learner;
- freedom to challenge and admit error;
- building on prior learning and experience;
- matching the pace of teaching to the capacity of the learners;
- good access to learning resources;
- time to talk about learning.

## Learners and the learning culture

Able pupils do not fit any particular stereotype, nor do they have predictable learning styles. They can be ambitious, amiable, articulate, anti-social, awkward or underachieving.

Schools need to establish a classroom climate that:

- promotes excellence while structuring learning effectively for all pupils;
- incorporates the highest possible expectations;
- values and builds on prior learning;
- features systematic encouragement and specific praise;

- includes opportunities for demonstrating, developing and celebrating high levels of aptitude and ability;
- encourages risk taking;
- offers scope for intellectual initiative;
- provides quality assessment for learning and focused feedback;
- accelerates and expands learning whenever appropriate;
- exploits the potential of ICT;
- opens doors to learning beyond the classroom;
- encourages pupils to experiment and speculate;
- encourages pupils to aim high, now and in their future.

It is worth remembering that:

- able pupils often benefit from the opportunity to shape their own learning in unanticipated ways;
- peer group pressure can make it difficult for able pupils to show what they know;
- it is not appropriate for able pupils just to be given more work to do of a similar nature to that done by others: they benefit from tasks that are qualitatively different, rather than merely longer;
- higher-order learning skills such as analysis, synthesis and evaluation should be planned progressively into sequences of teaching and learning – ‘taught rather than caught’;
- progression in learning is neither simple nor necessarily linear – it involves the orchestration of a range of interdependent skills;
- able pupils can benefit from involvement in guided work where they can challenge and be challenged in the security of a smaller group;
- able pupils can benefit from discussion about what it means to be able in their school and in social contexts.

## English

Pupils who are more able in English may demonstrate marked ability in reading, writing, and speaking and listening. It is by no means unusual for development in one of these areas to be more pronounced than in others, and so provision needs to ensure that while individuals build on and demonstrate areas of strength they also develop related skills.

Effective provision often includes a combination of:

- opportunities to develop critical and creative thinking that generates ideas in talk, in their own writing and in response to texts;
- opportunities to explore and to write in an increasingly sophisticated range of genres;
- opportunities to compare texts within and across different genres and periods, looking at variations not only in language and structure but also in contextual factors and values or ideas;

- exposure to the ways in which professional writers think, plan, make language choices and structure their work;
- regular opportunities to discuss and review their own writing and reading;
- exposure to and opportunities to use critical ideas and vocabularies;
- increasingly sophisticated close textual analysis;
- opportunities to hear and analyse skilled speakers and performers, and to develop their own skills, in a range of contexts.

## Mathematics

The recognition of mathematical ability goes hand in hand with its development, so it is important for teachers to develop a clear understanding of such ability. This understanding should include characteristics such as the ability to:

- grasp the structures of problems;
- follow chains of thought;
- think flexibly;
- use mathematical symbols in thought processes;
- remember and use mathematical relationships, problem types and approaches.

From these broader abilities, teachers can then develop challenging activities. Effective provision is characterised by:

- fostering of curiosity and enthusiasm in mathematics through stimulating activities and discussion;
- building strong foundations of experience and understanding;
- activities that explore mathematical concepts and connections;
- opportunities to experiment with approaches, and explain and justify those taken;
- a focus on problem solving;
- opportunities to work with pupils of similar ability at a faster pace or an increased depth;
- development of tools and skills for investigation and self-evaluation;
- opportunities for reflection, questioning and speculation.

## Science

Ability in science goes beyond acquiring good subject knowledge. The able young scientist shows an increasing ability to think scientifically and adopt and develop relevant learning strategies. These can include prolonged concentration, recognition of patterns in data and events, understanding of data, testing and prediction, and the perception and analysis of relationships between ideas.

Effective classroom provision in science includes the following:

- establishing and building on existing knowledge and understanding
  - particularly important at key stage transfers – and using this as a starting point for learning;
- discussion of ideas and experiences in science, and testing the ideas with pupils;
- opportunities to consider and discuss science in history or society and the scientific culture;
- exposure to and development of higher-order thinking and questioning such as:
  - observation: look carefully and describe;
  - prediction: what will happen next? What will happen if . . . ?;
  - causal reasoning: X happened because Y happened;
  - correlational reasoning: it could be that X and Y are connected;
  - application: if we try the same idea in these circumstances, what do you think will happen?
  - synthesis: what might be the interesting areas to investigate? How might you go about this?
  - evaluation: why did this happen? What were the key factors?

## ICT

Within ICT, able pupils are able to combine their technical skills and knowledge to solve problems effectively, imaginatively and creatively. These pupils visit each part of the system life cycle within their endeavours and if questioned would be able to justify their decisions relating to input, process and output.

Effective teaching strategies to support these pupils include:

- use of modified or extended learning objectives;
- use of guided group work;
- objectives based around the understanding of concepts rather than skills acquisition;
- tasks and problems that are both open-fronted and open-ended to stretch able pupils and demonstrate their capability;
- ensuring that work off the computer is supported and valued by the pupil as part of the emerging solution;
- choosing contexts that both stimulate pupils and fall within their life experiences;
- ensuring that pupils are informed and active partners in their learning and are encouraged to reflect on their progress;
- providing pupils with sufficient opportunities outside discrete lesson time to explore, experiment and implement solutions and systems.

## History

High ability in history can take time to emerge because the nature of the subject can often require maturity and experience. However, even very young children can display a marked interest and enthusiasm for history that will develop into high performance as they mature.

Learning in history depends on the development of skills in both literacy and thinking. Therefore it is important that both these areas are developed as pupils move through the curriculum. Effective provision is characterised by:

- opportunities to develop skills in discussion and analysis, both orally and in writing;
- opportunities to consider issues and events from a range of perspectives;
- exposure to and opportunities to develop higher order exploratory questioning – ‘What if . . .?’ and ‘Why?’ questions;
- opportunities to practise evaluation, both of historical evidence and of their own and others’ work;
- opportunities to explore relationships, sequences and causality in historical events;
- exposure to and use of increasingly sophisticated subject vocabulary and ideas;
- exposure to and analysis of good historical writing and thinking.

## Geography

In geography, the able pupil will find opportunities to develop a range of thinking and analytical skills. Geography overlaps many traditional subject boundaries, and so can provide a wide range of opportunities. It is often seen as a questioning or thinking subject and can help pupils develop and extend their skills in:

- research and information processing;
- enquiry and problem solving;
- identifying patterns across contexts and situations;
- viewing an issue from a variety of viewpoints;
- understanding and applying a range of subject concepts and terminologies, for example from geography, science, history and religious education.

Effective provision moves pupils naturally into the realms of higher-order thinking, and should involve frequent opportunities for:

- application: applying the same ideas to a changed situation, for example different regions, contexts, populations or issues;
- analysis: questions that invite pupils to explore causes, effects and relationships;
- synthesis: hypothesising or generating ideas and looking for alternatives;



- evaluation: activities that involve pupils in following the thinking in a geographical study, and assessing the validity of conclusions in their own and others' work using criteria they themselves have generated.

## Design and technology

Design and technology can be seen to straddle the gifted-talented divide, in that able pupils in this subject will demonstrate potential both in academic or analytical thinking and in creativity in designing and making. This means that effective provision for able pupils in design and technology should develop thinking skills as well as practical expertise.

Teachers seeking to provide for their most able pupils should try to:

- model creative processes and techniques at more advanced levels;
- encourage risk taking and experimentation in the exploration and development of ideas;
- discuss and encourage pupils to create specific criteria for evaluating the success of projects;
- consider designs and ideas from a variety of viewpoints;
- foster problem solving and transfer from prior learning to new situations;
- investigate and consider the properties of new materials and their uses;
- ensure access to appropriate resources including out-of-school opportunities and expertise (for example from designers and engineers);
- provide opportunities for collaborative as well as individual work and evaluation;
- encourage pupils to use complex and advanced subject terminology with confidence.

## Modern foreign languages

Becoming a competent and independent language learner is a process which develops alongside intellectual maturity and familiarity with the language and culture. Linguistic development is also very dependent on input and opportunity. However, a pupil with particular aptitude may show:

- an early awareness of the second language as a separate system;
- curiosity in how language works;
- the ability to extrapolate general rules from samples;
- the ability to identify, memorise and reproduce new sounds;
- awareness and use of a range of strategies for learning.

Giving depth, breadth and pace to second language learning means a progressive focus on:

- ensuring that pupils have access to key grammatical structures and to language that has transferability value and makes a difference to meaning;

- differentiating task, text and pace, for example to elicit higher responses or more complex outcomes, or to add to challenge and enjoyment by using authentic materials and materials intended for older learners;
- extensive reading and listening to extend linguistic and cultural understanding;
- creative and imaginative use of language;
- encouraging greater independence and flexible access to a range of resources;
- explicit development of language learning skills;
- increasing general cognitive challenge, for example through more demanding content and problem-solving approaches;
- introducing interesting and challenging contexts in and beyond the classroom.

## Religious education

Religious education abounds with opportunities for able pupils to engage with challenging situations and materials. Opportunities to develop thinking skills are essential in RE, and support the transfer of learning to and from different contexts.

Effective teaching for the most able is characterised by:

- building on prior skills, knowledge and understanding;
- open questions to which there is no single correct answer;
- opportunities to question and challenge opinions sensitively;
- modelling of a range of activities and skills in thinking and writing;
- opportunities for able pupils to extend and develop ideas and to suggest hypotheses;
- opportunities to develop as independent and collaborative learners;
- encouragement to use complex and advanced subject terminology;
- recognition of pupils' sense of personal and cultural identity;
- use of a variety of demanding resources that help pupils engage with difficult or complex ideas.

## The talent domains – PE, art and music

Within the talent domains, teachers often share similar concerns. Aptitudes in these areas may reveal themselves early given the right conditions, but can also remain hidden if a pupil has had limited encouragement or opportunity. Teachers may then be faced with teaching talented pupils whose skills and performance are developed to a degree where it is difficult for them to be provided for in the ordinary classroom context, or with pupils in whom talents of great promise are merely latent and who need intensive and focused development of skills.

A combination of the following approaches characterises departments and schools that provide well for their talented pupils:

- identification of pupil potential, an understanding of individual strengths and weaknesses, and a clear action plan for development;
- fostering an interest in the culture and history of the subject;
- opportunities to develop more complex technical language and ideas;
- resources that enable talented pupils to extend their skills in both theory and practice;
- focused development of higher level technical and performance skills;
- flexibility of approach in pupil grouping;
- opportunities for extracurricular learning and experience;
- teachers who highlight the positive role of perseverance;
- teachers with a history of and interest in their own practice and performance;
- strong links with and exploitation of the local community and business resources, and contact with experts in the field beyond school;
- exploitation of links across the curriculum;
- encouragement of and building skills for self-evaluation;
- opportunities to work independently, collaboratively and competitively as appropriate;
- opportunities to participate in local and national displays, performances and competitions;
- fostering awareness of a wide range of career opportunities within the field.

Further subject-specific guidance and examples can be found on the Key Stage 3 website

(<http://www.standards.dfes.gov.uk/keystage3/respub/agt>)

and on the National Curriculum website

(<http://www.nc.uk.net/gt/index.html>).

## References

### Key texts: definition and identification of ability

- House of Commons (1999) *Highly Able Children*, report of Education and Employment Committee, London: The Stationery Office.
- Renzulli J.S. (2004) *Identification of Students for Gifted and Talented Programs* SAGE.CA/NAGC
- Sternberg R.J. (2004) *Definitions and Conceptions of Giftedness*, SAGE.CA/NAGC
- Gardner H. (1999) *Intelligence reframed: Multiple Intelligences for the 21st Century*; New York: Basic Books

### Key texts: pedagogy, curriculum and learning needs

- Freeman, J. (1998) *Educating the Very Able: Current International Research*, London: The Stationery Office
- Maker, C. J. & Nielson, A. B. (1995) *Teaching Models in the Education of the Gifted*, 2nd edh, Texas: PRO-ED
- McGuinness C. (1999) *From Thinking Skills to Thinking Classroom: Research Report No 115*, London: DfEE
- Renzulli et al. (2000) *The Multiple Menu Model: A Practical Guide for Developing Differentiated Curriculum*, Creative Learning Press
- Van Tassell-Baska, J. (2003) *Curriculum for Gifted and Talented Students* SAGE. CA/NAGC

### Further reading for English

- Applebee, A et a. (2003) Discussion-Based Approaches to Developing Understanding: Classroom Instruction and Student Performance in Middle and High School English, *American Education Research Journal* Vol 40 (3), pp. 685–730, <http://www.aera.net/pubs/aerj/>
- Deane, G. (1998) *Challenging the More Able Language User*, London: David Fulton
- Paule, M. (2003) *The Able in English File*, Oxford: Heinemann

### Further reading for Mathematics

- Adhami, M., Johnson, D. C. and Shayer, M. (1998) *Thinking maths: The programme for accelerated learning in mathematics*, Oxford: Heinemann Educational Books
- Johnson, D. (2000) *Teaching Mathematics to Gifted Students in a Mixed-Ability Classroom*, ERIC Clearinghouse on Disabilities and Gifted Education; ERIC EC Digest #E594; <http://ericec.org>
- Kennard, R. (2002) in The Report of Professor Adrian Smith's Inquiry into Post-14 Mathematics Education, 'Making Mathematics Count', <http://mathsenquiry.org.uk/report>
- Mathematics Organisation website: [http://m-a.org.uk/making\\_better\\_use\\_of\\_mathematical\\_talent/](http://m-a.org.uk/making_better_use_of_mathematical_talent/)

### Further reading for Science

- Adey, P.S. and Shayer, M. (1994) *CASE: Really Raising Standards*, London: Routledge.
- Kinchin I.M. (1999) 'Revealing the quality of students' Science understanding using concept maps', paper presented at BERA Conference University of Sussex at Brighton 2 – 5 September 1999
- O'Brien, P. (2002) 'Science', in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton

### Further reading for History

- Counsell, C. (2003) The forgotten games kit: putting historical thinking first in long, medium and short-term planning, in Haydn, T. and Counsell, C. (eds) (2003) *History, ICT and Learning*, London: Routledge
- Greenwood, B. (1997) Adventures in Learning 5 – History in Reverse, *Gifted Education International* Vol 12 (1), AB Academic Publishers
- Mordecai, S. (2002) 'History', in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton

### Further reading for Geography

- Leat, D. (2002) 'Geography', in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton
- Leat, D. (1997) 'Getting Ambiguous', *Educating Able Children* 1997 No 1
- Pain, R. (1995) 'Using Self and Peer Assessment to Improve Students' Essay Writing: a Case Study from Geography, published online by the Resource Database: Geography, Earth and Environmental Sciences at: <http://www2.glos.ac.uk/gdn/abstracts/a14.htm>

### Further reading for Design and technology

- Davies, T. (2002) 'Design and Technology' in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton
- Lewin, R.H. (1999) The More Able Pupil in Design & Technology, *Educating Able Children* Spring 1999

### Further reading for Modern foreign languages

- Lowe, H. in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton
- McLachan, A. (2002) Raising the Standard: Addressing the needs of gifted and talented pupils, CILT publications, New Pathfinders

### Further reading for Religious education

- Baumfield, V.M. (1997) Curriculum Challenges: Thinking Skills for the More Able, *Special Education* (Spring n 1997), pp.42–43.
- Cope, M. (2002) 'Religious Education', in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton
- Fisher, R. (2003) *Teaching Thinking: Philosophical Enquiry in the Classroom*, Continuum International Publishing Group

### Further reading for PE, art and music

- Archer, C. Research and readings: Music for gifted and talented students [http://www.tki.org.nz/r/arts/artspd/research/updates6\\_e.php](http://www.tki.org.nz/r/arts/artspd/research/updates6_e.php)
- Beashell, P. (2002) Physical Education and Sport, in Eyre, D. and Lowe, H. (eds) *Gifted and Talented Curriculum Provision in Secondary Schools*, London: David Fulton
- Cunliffe, L. (1998) Art and Art Education as a Cognitive Process and the National Curriculum, Teoksessa R. Burden ja M. Williams (eds) *Thinking Through the Curriculum*, 47–71, USA: Routledge
- Davidson et al. *Innate Gifts And Talents: Reality Or Myth?* <http://www.ecs.soton.ac.uk/~harnad/Papers/Py104/howe.innate.html>
- Winner, E. and Martino, G. (1993) Giftedness in the visual arts and music, In K. A. Heller, F. J. Mönks & A. H. Passow (eds) *International handbook of research and development of giftedness and talent*, Pergamon
- Zimmerman, E and Reis, S. (eds) (2004) *Artistically and Musically Talented Students* Sage: CA [http://www.tki.org.nz/r/arts/artspd/research/updates6\\_e.php](http://www.tki.org.nz/r/arts/artspd/research/updates6_e.php)





Copies of this document may be available from:

**DfES Publications**

Tel: 0845 60 222 60  
Fax: 0845 60 333 60  
Textphone: 0845 60 555 60  
e-mail: [dfes@prolog.uk.com](mailto:dfes@prolog.uk.com)

**Ref: DfES 1036-2004**

© Crown copyright 2004

Produced by the  
Department for Education and Skills

[www.dfes.gov.uk](http://www.dfes.gov.uk)

If this is not available in hard copy it can be  
downloaded from:

[www.standards.dfes.gov.uk](http://www.standards.dfes.gov.uk)

The content of this publication may be reproduced free of charge by schools and local education authorities provided that the material is acknowledged as Crown copyright, the publication title is specified, it is reproduced accurately and not used in a misleading context. Anyone else wishing to reuse part or all of the content of this publication should apply to HMSO for a core licence.

**The permission to reproduce Crown copyright protected material does not extend to any material in this publication which is identified as being the copyright of a third party.**

Applications to reproduce the material from this publication should be addressed to:

**HMSO**, The Licensing Division, St Clements House,  
2-16 Colegate, Norwich NR3 1BQ  
Fax: 01603 723000  
e-mail: [hmsolicensing@cabinet-office.x.gsi.gov.uk](mailto:hmsolicensing@cabinet-office.x.gsi.gov.uk)