Guidance on Gifted and Talented (Very Able) Children in Foundation Stage (Subtitle ∞ -1)





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Context

Medway Council is pleased to present this publication regarding the most able young children entering school. A working group of Medway Foundation Stage teachers, Headteachers of Medway infant schools, representatives of the Medway Early Years Team and Primary Advisers put the content together. The work was done in response to a project being undertaken by the National Association for Gifted Children (NAGC) that is currently researching this field. This publication will be passed on to NAGC to help further their work. In the meantime, copies are being circulated to all Medway Infant and Primary schools and Early Years settings, as the content may be of interest. For all children, a characteristic feature of good teaching and learning is an appropriate match of activity and challenge to ability. Young children who are very able may require planned opportunities to learn, which offer extra possibilities for them to use and extend their unique abilities.

The current 'fashion' in education is to refer to very able pupils as 'gifted' if they excel at academic subjects such as English, maths and science and to refer to them as 'talented' if they show exceptional talent in other subjects such as music, physical education or art. Good 'all rounders' are therefore referred to as 'gifted and talented'.

When dealing with young children, these definitions do not seem particularly appropriate because the curriculum they follow is not compartmentalised in to the subjects of the National Curriculum. Young children do not learn in this way. Other ways need to be found to recognise, describe and provide for their abilities. Most schools use guidance provided in the document 'Curriculum Guidance for the Foundation Stage' from the Qualifications and Curriculum Authority (QCA**) to plan the curriculum for their youngest children. Because most teachers are familiar with and will recognise this, ideas given in this publication for planned enrichment and extension activities for the most able pupils are grouped under the headings of the six Early Learning Goals (the six areas of learning) described in the QCA document.



Adults working in schools and in Early Years settings may be the first educational professionals to meet young children outside the home. In assessing and providing for learning, the following should be considered,

- Statistically, about a quarter of children entering education will be in the top 25% of ability (reflecting society as a whole) and about 5% of these will be at the very top of the range. This will vary from year to year and from school to school.
- Some children may appear to be very able because they are technically competent and in advance of their peers. They may enter reception class and be able to write, read well or have a good grasp of early numeracy. These children may indeed be very able. Or they may just be fortunate to have been born in to circumstances where they have been nurtured and taught well by parents or carers. Past evidence shows that these children do tend to stay ahead of others but that over time, differences even out.
- Some very able children may have been born in to circumstances where they have had few opportunities to try out new things or develop their skills or abilities. A talented musician or artist, for example, may not be immediately evident if they have never had access to music, instruments or art materials. A child is not able to demonstrate a high level of ICT skill if they have never had access to a computer. Experience shows that when presented with the opportunities offered in a rich learning environment, these children tend to 'catch up' quickly and often overtake their peers. Many teachers report noticing 'a certain something' about them, often described as 'a quickness of mind'.
- There may be children who are very able naturally and who have also been fortunate enough to have the support to develop their abilities. These children tend to present as the most advanced.

Experienced Foundation Stage teachers associate a number of characteristic features with very able children. They caution that each child is unique and that not all of these features will be present in each case. Some children who are very able may also have additional educational needs. For example very able children who are elective mutes, or who are partially sighted, will require special support.

Identification

Possible characteristics of the very able child might include,

- Is continuously demanding
- Is very curious
- Possesses a vivid imagination
- Learns more quickly then other children
- May have a very good memory
- Has good general knowledge
- Has great physical energy
- Can concentrate for long periods if interested
- Begins to speak and read earlier then chronological peers
- Has a wide vocabulary
- Begins to solve mathematical type problems
- Knows the answer to problems without apparently going through intermediate stages
- Pays great attention to detail
- Draws, paints or models very skilfully
- Has very good physical coordination or ability such as balance or ball skills
- Has a well developed sense regarding social matters, e.g. leadership, taking turns, self awareness, nuances in interaction, 'tunes in' to what is going on quickly
- Frequently asks questions sometimes of a speculative or philosophical nature
- Shows a sense of humour early
- May have an imagination or sense of humour that appears unusual or odd
- Challenges by often asking 'why?' when asked to do particular activities *

All children below statutory school age, whatever their abilities or circumstances, have only been alive for less then five years, so they have very limited life experience. Arrival in a school or other setting exposes them to new people, circumstances, opportunities and ideas. Schools and settings are therefore uniquely placed to offer very able young children the widest possible range of new opportunities and challenges to help them develop their gifts and talents.



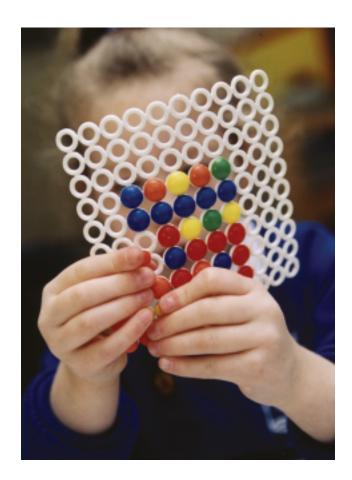
Planning and organising for opportunity and challenge

Experienced Foundation Stage teachers recommend the following general guidance when planning the learning for very able young children.

- Limits on exploration tend to be set by adults and not by the children themselves. The message needs to be 'The sky is the limit' (or maybe even beyond this)!
- Planning should reflect the widest possible differentiation, or range of opportunity. Gifted and talented children can become bored in an undifferentiated environment with lack of appropriate challenge; this can result in poor behaviour.
- Investigations and activities should be open ended and provide opportunities for autonomy and self-selection.
- It is important to assess what the children know, understand and can do (concept mapping) and then provide for the next steps in learning and for opportunities to gain experience and knowledge in new or unfamiliar areas.
- These children are often less comfortable where there is a rigid teaching structure and limited pupil involvement. There needs to be a fluid approach.
- Grouping of children should vary. It is appropriate for very able children to occasionally be grouped with their intellectual peers. It is also important to vary groups so that very able children learn to work with people of all abilities and to share activities of mutual interest.
- Teachers with experience of working with very able children recommend speaking to them as adults, interacting by using adult vocabulary.
- Very able children need an age appropriate environment. They may be particularly gifted at something such as reading but their fine motor skills and emotions may be closer to their stage of chronological development.

- 'Challenge' boxes can provide a wide range of extra activities for children to explore. Access to these is popular as a reward earned by children for 'finished' work. Challenge boxes should provide variety. For example, 'talking' cards can be included suggesting a topic children might discuss with each other. One example of a 'talking card' is 'How do you and your friends differ?' Very able children will quickly grasp that differences and similarities may be physical or may be linked to personality. Challenge boxes can include 'surprises' such as a cassette tape of a story, or a CD of music to listen to. Some teachers have used objects like a good magnifying glass or a spring balance. Natural objects such as fossils or packets of seeds can also be fascinating.
- Activities designed to promote the development of thinking skills and problem solving across the curriculum should be offered. The children need time to formulate ideas and concepts.
- Puzzles and challenging games such as 'Chinese puzzle boxes', three-dimensional noughts and crosses, draughts and chess are popular with very able young children.
- Games designed to help develop memory skills, for example Kim's Game (objects shown on a tray then covered over and recall attempted) are particularly effective if teachers go on to discuss with children the range of strategies that can be used to remember the objects.
- Logic games such as '20 questions' or 'Who am I?' help to develop thinking skills.
- Resources should be organised so that children can self-select.
- Questions asked of children should frequently be open ended.
- The curriculum and timetable should be flexible enough to allow for tasks to be followed up or finished when required.
- Many very able children enjoy being given a daily or weekly project to research. Research skills need to be taught.
- Very able children need to experience play with children of their own age as well as learning to interact with adults.
- The notion of play should be interpreted widely; high ability children may see play as copying adults e.g. reading, problem solving, discussing and searching for solutions.

- The value of 'block play' should not be underestimated.
- Individual children should be supported in pursuing their own interests. There is a tendency among educators to worry if a child appears to be interested in only one thing, because of the need to support the development of a 'balanced child'. While this is of course desirable, experience shows that even if a child is passionate about one area of work, sooner or later they will have explored to their own limits and become interested in other things too.
- Very able children can 'burn out'. They do not need to be totally occupied for every single minute of every day. They need 'down time' to reflect on and consolidate what they have learned. They need to have fun. Many young people say they get their best ideas when they are 'daydreaming and doing nothing'.
- If all young learners were to be taught in the way suggested for very able children, teachers suggest more children with gifts and talents might be discovered.



The Early Learning Goals

The Medway working group offer suggestions for enrichment of the curriculum for very able pupils under the following familiar headings.



Personal, Social and Emotional Development

Teachers participating in the project said this Early Learning Goal presented two different challenges.

Firstly, some children arrive in school with well-developed personal, social and interpersonal skills and may require the provision of extra challenging activities. These might include,

- Managing the participation of visiting adults in the classroom, including issuing an invitation, welcoming a guest, ensuring their comfort and following up with a thank you.
- Taking responsibility for part of the daily routine of the class (but not unfair duties such as always tidying up).
- Being asked to explain or discuss the reasons behind why the class, school or community follows certain rules of behaviour and why these are considered important.
- Conducting genuine interviews with other children or adults.
- Pairing up with an older child or children in order to participate in social interaction that is more advanced.
- Presentations to groups of children or the whole class.
- The planning of an outing, group activity or new class routine.
- Planning and preparing a simple menu for a food technology activity.

Secondly, very able children may be less well developed in this area and additional opportunities may need to be offered to them.

- Very able children, along with all others, need to develop social skills and self esteem. They may need additional opportunities to develop perseverance and tolerance as they can become frustrated that others around them take longer to do things or 'don't get it' quickly enough.
- There may be a need to help very able children learn how to cope when things are not moving fast enough for them. (For example in whole class lessons, when they always know the answer when called upon, they may have to learn to realise that it is customary for children to take turns to answer.)
- Very able children should not be used as pupil teachers or to help others, other then when it is naturally their turn to do so. (An example of an appropriate activity would be to read to the whole class at story time).
- While care must be taken to avoid 'stereotypical' descriptions of very able individuals, some teachers report they have experienced working with children who excel at one thing such as maths but are quite introverted socially. These children would benefit from being taught simple social skills such as how to open a conversation with other children on the playground. They should be given opportunities to talk about and develop their feelings.
- Help may need to be given in assisting these children to recognise and celebrate different talents in others.





- Where speaking and listening are already well developed, the teacher can set separate conversational targets, for example for paired work (e.g. a 'television interview').
- At this age, even those children with very advanced reading and writing skills have only been reading and writing for a few months. There is a wide range of material they have not read or experienced. Exposure to all sorts of information books, ICT research tools, journals, newspapers, magazines, fiction books and poems can be offered. The meaning of new words can be explored.
- Books that will allow the imagination to flow should be considered. 'Where the Wild Things Are', 'The Owl Who Was Afraid of the Dark', 'Mr.Gumpy's Outing', 'First Stories / First Poems for Thinking' (Dr. Robert Fisher) etc.
- Reference books should be introduced with a demonstration of how they work.
- Very early work in foreign languages often interests very able young children, for example counting to ten in French, Latin, Russian and Chinese, or saying 'Hello' 'Good morning' or 'Thank-you' in many different languages.

- Very able children often enjoy word games and challenges such as word searches or word mazes, Scrabble and Boggle.
- Inferential as well as literal comprehension should be considered, exploring for example nuances of plot, motivation of characters or discussion of 'What would happen if?'
- Story making can be encouraged by giving the children a bag of various objects and asking them to make up a story that includes all the items. Alternatively, they can be given props to dress up as a character and then asked to tell a story in role.
- Children can be encouraged to say, learn or create their own tongue twisters.



Mathematical Development



- Challenging maths activities should be provided that offer few limits. Ceiling should not be imposed on work unless a particular task demands. Open-ended activities (such as making own number lines to as high as can be managed) can be suitably challenging.
- Role-play activities should be set up so that all the children can access them but the most able can extend them. A range of props can be used to support mathematical role-play, such as a calculator, telephone or till.
- Activities that promote problem solving, particularly those associated with real daily problems, can be particularly effective. An example might be, 'How many different ways are there to arrange three eggs in an egg box?'

Mathematical Development



- Simple data handling exercises are recommended.
- Enrichment activities can include, for example, the provision of money from other countries to look at and handle, digital and twenty-four hour clocks and simple thermometers. One teacher described a project that very able mathematicians had done to find out how people measure different things. They had not only recorded by drawing all the regular measurements children use (such as weighing, or measuring length) but had spoken to other adults and their parents and, almost daily for several weeks, reported new methods of measurement they had encountered. Examples included size of footwear, height of horses measured in 'hands' and the speed of the wind as described in a television weather forecast.
- Foundation Stage outdoor areas provide valuable opportunities for mathematical development on a larger scale. They can allow children to experience larger spaces, handle and construct with large equipment and experiment through sand and water play.

- Individual research projects requiring direct observation and record keeping can be used. For example a child can be asked to note weather patterns, the position of the sun at different times of day, on which days the moon is visible in daylight, where it is in the sky or what shape it is.
- Use of representational drawings like real maps, room plans and construction designs should be encouraged, not just the 'baby' versions of these.



- Globes and aerial photographs provide endless fascination.
- Historical studies can be tackled in greater depth by asking children to play act in the role of the character they have heard about.
- Children can 'interview' adults such as parents or grandparents about stories from their past and report back on these. Themes that have proved successful are asking people to describe happy things that have happened to them, talking about school life when they were young or recalling favourite toys or games they used to play with as a child.
- Any scientific investigations are developmental, such as experiments with floating and sinking, melting of ice, torchlight used with mirrors and so on.
- Opportunities to experiment with items such as batteries, bulbs, wire, crocodile clips and switches should be provided.
- Plants can be grown and cared for. It can be exciting to grow seeds if they are 'mystery' seeds and children watch them develop and speculate about what they might turn in to.

- Very able children can be asked to carry out their own 'recycling' project, for example the collection of used yoghurt pots for mixing of paints, ensuring class paper is not wasted or even composting in a garden area.
- Any opportunity to invent, design or make things is of benefit. These can be real things, such as a 'pop up' birthday card or imaginary things such as a machine to exercise a dog.
- Good quality construction kits like Lego or Meccano provide excellent opportunities for making complex models. These should be of a range of sizes, so large construction apparatus should also be provided, as the challenges it presents are different. If possible, batteries and engines should be made available so that 'things can be made to happen'.
- Complex assembly tasks such as laying out a model train track should be encouraged.
- 'Reverse technology' or 'backwards engineering' often fascinates very able children. They like to take things apart to see how they work (for example deconstructing cereal or paper tissue boxes, looking inside an old mobile telephone, etc.)
- Very able designers enjoy handling unfamiliar artefacts and speculating as to their origin and use.
- Even young children can learn to operate classroom technological equipment such as a TV, video, tape recorder and headphones or CD player, as long as they are taught carefully about proper and safe use.
- Children are fascinated by the opportunity to record and play back their own speaking or singing voice, or that of their friends.
- Programmable toys such as 'Turtle' are within the scope of most very able young children.
- Schools report increased numbers of children arriving with ICT competence because of parental teaching and use at home. One member of the work group had experience of a very able reader in a reception class, who could set up a computer, use a CD-ROM style encyclopaedia and enter key search words such as 'elephants' to find more information. Children capable of this level, and other children too, can be offered opportunities to use word processing programmes, to experiment with print size and font and to save and retrieve their own work.

Knowledge and Understanding of the World

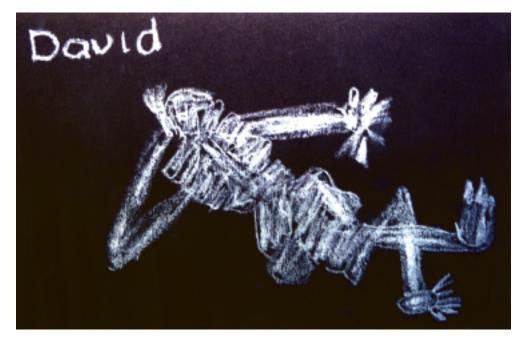


- ICT software can be used to support work in other areas of talent such as music or art. Some teachers have successfully used digital cameras and interactive whiteboards to develop artistic (and other) skills.
- Very able children are renowned for asking many questions and asking 'why?' They enjoy being given challenges to think deeply about and to discuss. They sometimes become very concerned about right and wrong, fairness and the order of things. They should be encouraged to explain their reasoning and say how they feel.
- A useful idea for encouraging deeper thinking is to ask very able children to discuss 'Questions I don't know the answer to'.
- Some very able young children search for the deep meaning of things and begin to explore philosophical concepts. They can be introduced to different explanations and views of things and can begin to learn about comparative religion. One group of children observed by a member of the working group asked 'How do the daisies on the grass know they have to close at night?' This led to a detailed discussion, which included views as diverse as 'Daisies don't know anything because they can't think', 'They open when there is light and close when it is dark because they need sunshine' and 'Because God made them like that.'

- Climbing frames and other apparatus that enables experimentation with all sorts of scrambling helps to develop coordination.
- Opportunities should be provided to allow for building with large light materials, for example staircases of different sizes that can be climbed.
- The use of bicycles or scooters with stabilisers can assist with the development of coordination and balance.
- Early gymnastic activities that offer opportunities to balance, jump, move in different ways and create sequences should be encouraged.
- Expressive dance and traditional dance such as folk or maypole dancing can be used. One teacher in the project group had had experience of working with a young child who was skilled in ballroom dancing, having learned at home from parents.
- Very able children whose performance far exceeds that of their peers should be encouraged to improve their own personal best, for example the speed at which they can run a certain distance, or throwing the same item further in weekly P.E. lessons.
- Many opportunities can be offered for children who have well developed fine dexterity. They may enjoy knitting, embroidery, braiding, weaving, making small models or creating mosaics.



Creative Development



Drawn by David, age 4

- Creative activities need to allow for self-expression. A range of media should be offered.
- Opportunities should be provided for children to make observational drawings and to study artists.
- Young children are often only provided with thick pens, brushes and crayons. They cannot produce any work that includes fine detail with just these. Access to a choice of finer mark making tools enables them to experiment with a range of for example, pencil and nib work and to produce pattern and detail.
- Sufficient time should be allowed for children to finish their work and produce art of good quality. For example in drawing a picture of themselves or their friends, very able children will often go on to include a great deal of detail, if time allows.
- Very able young artists often enjoy 'illustrating' their own simple 'books'.
- Appropriate vocabulary associated with art such as sketch, shade, silhouette, contrast and texture, should be used when talking about art.

- Challenging tasks that require thought, such as painting a picture of a collection of white objects set against a white background, encourage children to think about shading and shadows. (For example painting a white egg, a bottle of milk and a white bowl containing white sugar arranged on a white tablecloth). They need to understand that light and shade changes the colour of things.
- Children need to be taught to observe closely and to look for shapes and patterns in what they see.
- Artistic techniques should be taught, for example the proportions of the body, where features appear on the human face, simple perspective, or that the sky comes down to meet the land when creating outdoor scenes.
- Good artistic practice should be encouraged from an early age, for example banging and kneading the air out of clay is a good habit to acquire, whether the clay is to be fired or not.
- It is acceptable for children to make a mess when experimenting with being creative.
- There should be opportunities provided for mixing media, for example paint and clay.
- Children can double or treble mount their own work on coloured card, choosing colours, whether to use straight edges, or whether to cut around work.
- A collection of recycled picture frames of different sizes will enable children to display their work 'like a proper artist'.
- ICT offers young artists opportunities to experiment with programmes such as 'paint' or with digital photography in black and white and in colour.
- Visiting artists, potters, weavers, etc. can be observed at work, or can offer 'beginners' classes to individuals or to groups of children.
- Visits to art galleries can be arranged.

- A variety of music should be made available for listening to. A range of instruments with which children can experiment and create music should be provided.
- Some children in the class may be having private music lessons. Teachers need to know about this.
- Musicians ranging from older children in the school to talented pupils in local secondary schools, talented members of the community and professionals can be invited to demonstrate their skills to the children.
- Choral speaking is a good precursor to singing together. Talented singers should be given early opportunities to learn different types of songs and to sing to the class on their own, in duets and with others.
- Plans for children's creative development should also include opportunities for role-play and drama. Very able children can discuss and perform in role, often acting out a number of different roles or points of view.



When planning to meet the needs of very able young children the following also need to be considered.

Pupil tracking and assessment

The introduction of the Foundation Stage Profile offers a framework for the recording of achievement and for tracking of pupil progress. Very able children may reach the Early Learning Goals before the age of five and schools will need to develop ways to recognise and record their achievements. It is not recommended that National Curriculum Programmes of Study and assessments be used, as the children are still very young and would benefit rather from an age appropriate enriched curriculum.

Monitoring

Schools should consider how provision for and progress by very able young children would be monitored. Some schools have a register of very able pupils compiled by the Gifted and Talented Pupil Coordinator. In other schools this is the responsibility of the Special Educational Needs coordinator (SENCO) and children who are more then two years ahead of their peers have Individual Education Plans (IEPs).

Whatever the arrangements, it is the responsibility of the Senior Management Team in the school to ensure that the needs of the most able children are met. This could be a useful focus for lesson observation or for the scrutiny of children's work. Observers should ask whether the children are given opportunities that go high enough. For example in one lesson observed in researching for this paper, children were working in ability groups on numbers up to 5, numbers 5 to 10 and numbers 5 to 20. A child in the 'top' group was observed telling another not to write 473 'Because we are only allowed to go up to 20'. This example stresses the importance of not limiting the scope of activity. Parents and carers can provide valuable information about early development in their very able young children, such as when they first began to speak, use mark making materials, read, write, count or draw.

Parents should be invited to discuss things the children have done at home and out of school interests. This may include information about being creative, reading or writing, competence in other languages, or experience with ICT. It may also provide information about activities that may not be immediately evident in school. For example a child may be participating in early ballet or music classes.

Practitioners should remain open minded if parents describe a different child to the one seen in the early years setting or school. Teachers and parents often express surprise as to what the 'partner in education' has observed their child to be capable of doing. The best way forward for the child should be agreed with the parents.

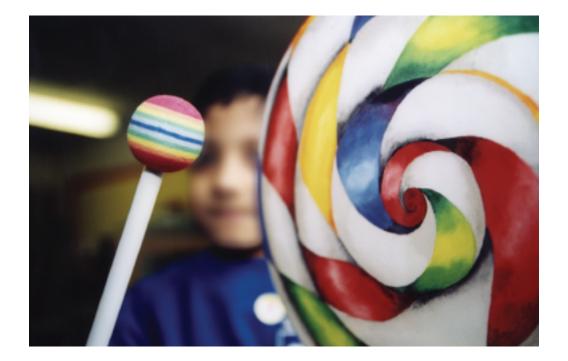
Parents of all children value information about how they can help them to learn. Some parents of very able children have said they find it helpful to have extra support. For example when reading books are taken home, the bookmark can be annotated to suggest aural opportunities relating to increased vocabulary, spelling rules, or questions parents might raise about characters and plot.



In considering provision for very able children, teachers may wish to research other philosophies associated with the education of young children. Examples might include Highscope, Montessori, Steiner, Reggio Emilia or the work on 'involvement scales' developed by Professor Ferre Laevers (Centre for Exceptional Education, University of Leuven, Belgium). A description of these approaches is beyond the remit of this short publication. The use of search tools on the INTERNET, entering key words, will provide easy access to more information for those who wish to read further.

Last word

Even the most able children who may have a fast rate of progress do not move straight to higher order skills. For example emergent writing does not change to National Curriculum Level 3 over one term. This is equally true of all other parts of the curriculum such as music or art. Very able children need many different opportunities to learn, experiment and develop at a challenging but realistic pace.



Of possible use

Websites such as

www.bbc.co.uk (for literacy and numeracy activities)

www.ambleside.schoolzone.co.uk

www.funbrain.com

www.ictadvice.co.uk

www.nagcbritain.org.uk

Music teachers recommend software called 'Super Dooper Music Looper' which allows children to compose and can teach notation. It is made by Counterpoint 01903 – 53884.

Teachers' courses run by The National Gallery, The Science Museum, etc. are highly spoken of by participants.

Subtitle ∞ - 1. An explanation.

On a hot sunny day a group of four-year-old girls are using water and paintbrushes to draw numbers on the patio outside their reception classroom. The class has been studying numbers up to 20 and that morning they have been practicing numbers that are one more than or one fewer than a given number.

A visitor observes two girls writing numbers. One writes 528 and the other says this is not allowed as they are only allowed to write numbers to 20. The visitor reassures the girls that writing bigger numbers is allowed, especially if they can work out one more than and one fewer than their number, which they proceed to do. After a few minutes, the visitor asks them what is the biggest number they can think of. One girl says it is a million and then quickly adds that this could be ten million or 528 million but she does not know how to write it. The other girl thinks for a few moments and then says she supposes the biggest number is infinity.

The visitor asks her if she knows how to write infinity and she says no, so together, they draw the symbol for infinity, ∞ , on the patio with water. The visitor then asks if the girl can suggest what one more than or one fewer than this would be. The girl says this is a difficult question and she would like some time to think about it and goes off to play in the sand.

About five minutes later she comes back to the visitor and says she thinks she has the answer and that it would be 'infinity minus one' $(\infty - 1)$.

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The staff and children of New Road Primary School.

Photographs by Stuart Thomas Photography, Gravesend.

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- ** 'Curriculum Guidance for the Foundation Stage' (QCA/DFEE. 2000) Ref QCA/00/587.

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