

**The Stonehenge School**

Striving for excellence, exceeding expectation

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**Key Stage 3 Gifted and Talented  
student/parent information**

**2014/2015**



## Introduction to Gifted and Talented

### Definition of the Able, Gifted and Talented

“An able child, as defined by The Stonehenge School, is one who achieves, or has the ability to achieve, at a level significantly in advance of the peer group. This may be in all areas of the curriculum or in a limited range.”

“A gifted pupil is one who achieves, or has the ability to achieve, in the top ~10% of their year group in and of the core subjects of English, maths and science as well as the humanities, modern foreign languages and in computing/ICT”.

“A talented pupil is one who achieves, or has the ability to achieve, in the top ~10% of their year group in art, music, dance, physical education, sport and technology”.

They can fall into the following categories:

1. **Invisible** – afraid of being labelled ‘boffin’ and won’t contribute in class.
2. **Inconsistent** – shows ability and skills in some lessons but picks and chooses.
3. **Skills/knowledge deficit** – working at A/B level but capable of A\* and doesn’t quite know how to get there.
4. **Disaffected** – doesn’t want to be in school, perhaps not been extended earlier in school life – effort levels low.

### Developing skills to avoid underachievement.

#### 1. Developing a Growth mind-set (*Carol Dweck*)

Many gifted students have a ‘fixed mind –set’ where they avoid challenges as they fear that failure will mean that they are not ‘gifted’. This can lead to underachievement and a lack of learning skills essential for success in later life. We need to help them develop a ‘growth mind –set’ to combat this.

	<b><i>Fixed mind-set</i></b>	<b><i>Growth mind-set</i></b>
<b><i>What does the student want to achieve?</i></b>	To look smart even at the cost of sacrificing learning by avoiding challenging tasks.	To learn new things even if hard or risky.
<b><i>How is failure seen?</i></b>	Failure is seen as an indication of low intelligence.	Failure is seen as an indication of low effort and/or poor strategy.
<b><i>How is effort seen?</i></b>	Effort is seen as an indication of low intelligence.	Effort activates and uses intelligence.
<b><i>Typical response after difficulty</i></b>	Less effort.	More effort.
<b><i>Self-defeating defensiveness</i></b>	High: not willing to risk mistakes.	Low: eager to learn and open to feedback about mistakes.
<b><i>Performance after difficulty.</i></b>	Impaired.	Equal or improved.

## Top tips for supporting your child at home

### ENGLISH

1. Find time to listen and talk meaningfully with your able child. Avoid hasty, casual answers and try to engage fully and thoughtfully. If reasoned, developed argument is modelled and shown as a powerful activity; children are far more likely to extend their own thinking and reasoning skills.
2. Play language-based games as a family. These can include board games like Scrabble, Lexicon, Articulate or Pass the Bomb as well as Just A Minute, where the player has to speak on a chosen subject for sixty seconds without hesitation, repetition or deviation. Crossword puzzles and word searches are also beneficial. These games all encourage extension of vocabulary and an enjoyment of language.
3. Make sure you have a really extensive dictionary and lengthy thesaurus at home. Etymology (the study of word origins) is fascinating and helps children understand the dynamic and living nature of language.
4. Try to arrange visits and experiences to provide raw material for the senses. A fish market is in many ways as stimulating as a concert! Fill up your child's creative bucket so they have plenty to draw upon.
5. Provide a notebook so that your child can jot down ideas whenever they come to mind. Encourage him or her to experiment with genre boundaries and reader expectations, setting challenges to write a prequel or sequel to a well-known story or play, for instance. Many able children have a singular sense of humour and this kind of activity suits them well.
6. Take a balanced view about spelling and presentation. Avoid squashing your child's desire to write by being too fussy. Look for improvement where there are problems, but not so as to dampen enthusiasm.
7. Establish reading habits as a family. Parents who read and obviously appreciate books are much more likely to encourage their children to read. Where practical, establish particular times when it is the norm to read.
8. Be aware of the dangers of your child reading a book ahead of his or her emotional and social development. Able readers have the technical skills to read material well ahead of their chronological age, but be aware of the social or emotional setting. The child will lose much of the meaning if their life experience lags behind technical ability.
9. Avoid the temptation to press your able child to be always reading a 'difficult' book. You want them to experience writing of acknowledged quality, but children as well as adults sometimes relax with trivial material!
10. Encourage your child to associate with other able children through enrichment activities like writers' visits, book groups and other special events. Able children need each other!

#### Recommended Writers

The following list is only a small selection. The writers have been chosen because they stimulate the imagination, present a challenge in terms of content or length and contain powerful or beautiful language moving beyond the literal. Contact your child's English teacher for more ideas!

Douglas Adams  
Marjorie Blackman  
Susan Cooper  
Roald Dahl  
Anne Fine  
Alan Garner  
Mark Haddon Robin Jarvis  
C.S. Lewis

## MATHS

1. Encourage experimental thinking with provocative questions such as 'What if the numbers were changed?', 'What if we rotate it?', 'What if we consider this in three dimensions rather than two.
2. Have available a range of puzzles to challenge and entertain. MENSA has a series of books called Number Puzzles for Kids. There are six levels of difficulty: 'Easy Does If'; 'Getting Harder'; 'Fiendish Figures'; 'Mind Numbing'; 'Aaargh'; and 'Super Genius'
3. There are many different websites that your child could access. NRICH Maths is especially for Gifted and Talented Maths students and publishes a monthly magazine for all to use. The web address is [www.nrich.maths.org/public/index.php](http://www.nrich.maths.org/public/index.php)
4. On family outings and holidays get your able child to put on 'mathematical glasses' to appreciate the maths all around us. Mazes are very mathematical; look at castles for their trajectory, and so on.
5. Play games as a family that have a mathematical content of some sort. Strategy Games File by Reg Sheppard and John Wilkinson is a collection of 50 games and puzzles to stimulate mathematical thinking.
6. Access the world class tests for 9-13 year olds at [www.worldclassarena.org](http://www.worldclassarena.org).
7. Involve your mathematically able child in enrichment sessions run by NAGC or LEAs, or Master Classes run by organisations such as the Royal Institution ([www.rigb.org](http://www.rigb.org)). Master Classes are supported by the Gabbitas, Truman and Thring Educational Trust ([www.masterclasses.co.uk/](http://www.masterclasses.co.uk/)).
8. Encourage logical thinking through 'related activities', as we might call them.
9. Matrix puzzles put an emphasis upon logical thinking and handling data. Books of them are available from WH Smith and other outlets.
10. Contact The Mathematical Association, 259 London Road, Leicester LE2 3BE (<http://www.counton.org/resources/ma/>). Resources include books, stickers. Posters and postcards as well as two journals for pupils: Symmetry Plus + and Mathematical Pie.
11. Work in partnership with your child's school so that there is no overlap and repetition of work undertaken. Some publications are aimed at teachers and parents. A good example is the series of Maths Challenge books edited by Tony Gardiner and published by Oxford University Press.



## SCIENCE

1. Make use of the opportunities in your home and garden. Get your child to observe life in the pond and the behaviour of various birds in the garden (which ones feed on a table, which on the ground, which on feeders, what their differing diets are, what their different patterns of behaviour are).
2. Encourage the use and development of subject-specific vocabulary. Make available a science dictionary.
3. Consider subscribing to the magazine "New Scientist" (web page at [www.newscientist.com/home.ns](http://www.newscientist.com/home.ns).) All personal subscribers get free web access to the past ten years of "New Scientist" via the online archive.
4. Build up a collection of interesting books by 'popular' scientists, or borrow copies from a library. Richard Feynman, Steven Pinker, Ian Stewart, Stephen Hawking and Richard Dawkin are among authors to be considered for older children.
5. Keep your eye on the television schedules. There are major series such as 'The Life of Mammals' and Robert Winston's work such as 'The Human Mind', many regular natural history programmes, long-standing popular programmes such as 'Horizon' (BBC Horizon web page) , and features on animals and forensic science on the UK Horizons, Discovery (Discovery channel web page) and National Geographic channels (National Geographic web page).
6. Arrange family outings and visits to natural locations such as the seashore and to centres of scientific interest. Encourage a questioning approach with key words like 'how' and 'why'. Find out about places to visit in your own area or where you are on holiday, from libraries and tourist information centres.
7. Look for books that present science content in an unusual and interesting way.
8. Nothing does this better than learn Walker's "The Flying Circus of Physics" ( available online from Amazon).
9. Encourage your able child to join the youth section of organisation such as the RSPB (Royal Society for the Protection of Birds at [www.rspb.org.uk](http://www.rspb.org.uk)), conservation groups, wildlife trusts and local zoos.
10. Take a look at the specialist area of astronomy, if this is of interest to your able child. Consider acquiring a telescope or even a small astronomical observatory and subscribing to magazines such as 'Astronomy Now' ([www.astronomynow.com/](http://www.astronomynow.com/)).



## ART

1. Provide opportunities in as wide range of media as possible, as a high ability in for example three dimensional work such as sculpture and construction activities may not be apparent in two dimensional work.
2. Make visits to as many art galleries and museums as possible.
3. Look out for art competitions for your child to enter.
4. Give support through tricky times, as the able artist will inevitably go through frustrating periods. There will be times when technical ability will lag behind ideas.
5. Encourage work from first hand sources and provide a pocket sketchpad to record experiences spontaneously.
6. Encourage the display of work around the house and support the display of work in areas such as the local library, and other suitable buildings.
7. Provide a rich environment with many stimuli to fire the imagination.
8. Be prepared to accept a mess when your child is working at home. Beneficial activities are not always neat and tidy!
9. Subscriptions to magazines such as The Artist will provide opportunities to study famous works
10. Similarly look out for TV programs about famous artists.

## GEOGRAPHY

1. Organise family visits to see natural features such as cliffs, rivers and limestone areas as well as features of a man-made environment such as factories, power stations and water works. Encourage questioning such as 'How did it get like this?' or 'How and why is this changing?'
2. Find time to discuss with your child the many issues and contrasting points of view involving geography such as global warming, planning issues, water shortages, transport issues, nuclear energy and pollution.
3. Explore the world of orienteering- using a map and compass to navigate a course over unknown ground.
4. Watch for television programmes with a geographical background such as The British Isles, Coasts, Planet Earth, those by Michael Palin and many made by The Discovery Channel (Discovery channel web page).
5. Explore the possibilities of children's literature, where novels and poems may describe people's lives and the places where they live. Stories may describe journeys through different lands or describe landscapes.
6. Involve your child in local issues such as an enquiry into a bypass or housing development.
7. Use maps for fun quizzes to help them get a sense of place. This could include map jigsaws.
8. Help your child set up a weather station at home where they regularly record data and discuss trends.
9. Organise family walks, rambles or hikes. Encourage your child to use a map to plot the route and relate the two dimensional map to the three dimensional landscape.
10. An enjoyable and interesting book is 'Where in the World am I?' edited by Simon Melhuish (available from Amazon). With the help of ten clues, in an order of decreasing difficulty, you have to work out which city; country or place is being described. Children could then write their own clues to test you!

## HISTORY

1. Visit your public library and encourage your child to extend their knowledge of topics studied in school. Knowing how to find information is an important study skill.
2. Make family visits to places of historical interest e.g. museums, castles, stately homes, and battlefields. Encourage your child to take part in "hands on" experiences. Discuss what you have seen and experienced, asking questions about similarity and difference, cause and consequence, and what can be learnt from the experiences.
3. Access the variety of history/archaeology programmes that are available on TV. Encourage a critical approach to the production values of the programmes, and whether they are objective or biased.
4. Encourage your child to read historical fiction. This broadens knowledge and encourages empathy.
5. Obtain copies of the Horrible Histories series which make history funny.
6. Strengthen higher order thinking skills of analysis, synthesis and evaluation by using materials concerned with detective work.
7. Encourage an interest in your family history by talking to older family members. Try tracing your family history through census returns and other documents. Libraries and bookshops have beginners' guides to this.
8. Look for local history events at your local museum or local history society.
9. Play "History: What if?" Get your child to speculate on what would have happened if a key event had gone differently e.g. What would have happened if Hitler had successfully invaded Britain?
10. Make time to debate issues with your child so that he/she can develop and demonstrate ideas. These could be historical issues, current affairs or moral ones.

## MUSIC

1. Be aware that skills and enthusiasms shown in younger children do not always continue as the child gets older. Likewise, adolescents may begin to express an interest in learning a musical instrument as a result of new musical experiences after moving to secondary school.
2. Explore the possibility of financial assistance from the local authority. In many cases, parents who are on low incomes may be entitled to reduced fees or even exemption
3. Provide a suitable rehearsal space and time. Provide encouragement, listen to them play, ask them how their lessons are going, what did they do today?
4. Organise visits to concerts and shows, this will broaden their musical horizons and also give you as parents, the opportunity to have a meaningful discussion with your son/daughter.
5. Support attendance at a range of regular extra-curricular activities. These can either be provided through the school and/or through the local music centre.
6. Suggest that your child aims for external music examinations if you feel that they need goals to aim for. There are also festivals competitions and other similar local events.
7. Look to the needs of a variety of talents. Being musical does not always mean they can play an instrument really well. They may be an outstanding composer. They may excel at Music Technology.
8. Be prepared to show patience and understanding over the long-term development. There will be high and low points during this learning and they will need to learn from both successes and failures.
9. Encourage your child to participate in musical activities which are designed for musical aptitude rather than their age. This will develop their social skills but will also build their confidence in their own ability.
10. Make buying music for them a pleasure. They will have set pieces their teacher will want them to learn, but perhaps reward successes with a trip for some new sheet music for them to learn.

## PHYSICAL EDUCATION

1. Provide opportunities for your child to play sport outside of school. Look especially for local clubs and websites.
2. Look at coaching courses available to enhance understanding and gain valuable qualifications.
3. Encourage the display of their achievements through a portfolio.
4. Look out for details of Gifted and Talented summer camps that are available looking at sports science and the human body.
5. Encourage students to take part in more than one sport, so they don't burn out.
6. Take them to see the elite performers competing to inspire them further.
7. Consider subscribing to sports magazines that can give specific tips on their sports.
8. Diet is very important in allowing students to fulfil their potential.
9. Encourage participation in all school opportunities available to them.
10. Over-training and playing can cause injury. Look for signs of fatigue.



## TECHNOLOGY

1. Use the higher order thinking skills of evaluation. Ask your child to make judgements about features in the home and man-made environment, clothing and textile products. What are the main elements in the design? Are they effective? Could they be improved?
2. Organise family outings to locations with strong design features.
3. Set problems based on the environment surrounding the family for your child to try to solve problems in more ways than one. Redesign the school car park; find a way to store things more effectively in the child's bedroom; design a bridge to span a local river or stream.
4. Stress the first solution may not be the best. Help your child to develop a patient approach with regard to research, gathering data, and attempting a variety of methods. Encourage them to generate more than one solution as the normal course of action.
5. See what the television schedule has to offer. Food programmes have proliferated. The Young Chef of the Year or similar offers opportunities to use evaluation skills. Does your child agree with the judges? Ready, Steady Cook is another well-known format. Ask your child to plan and produce a meal around the ingredients described at the start of the programme. Use episodes of Changing Rooms type programmes for analysis and evaluation. Ask your child to evaluate the expert's solutions in terms of what was asked for.
6. Make time to discuss issues with your child in technology such as food additives and genetically modified food, environmental costs of timber production etc.
7. Encourage your child to be a discriminating and thoughtful consumer. Get them to put on 'technology glasses' in order to become informed users of products with reference to needs, purposes financial and environmental costs.
8. Organise visits to exhibitions of the work of professional designers to appreciate the talents of those who lead the way.
9. Encourage your child to communicate with companies so as to become involved in real projects.



## LANGUAGES

1. Ensure that you have a good, modern dictionary at home, and ensure that your child knows how to use it properly.
2. Encourage your child to complete all vocabulary learning homework with care. Work with your child to ensure both gender and spellings are correct.
3. When abroad with your child, encourage them to use the language whenever possible.
4. Show an interest in their work and ask them to teach you what they have learnt that week.
5. Suggest that they label items around the house and set their mobile phone to the target language. **Use their mobile/ other recording device to record themselves** or 'podcast'. They will find this very useful for tests/ exams. The more they listen back the more information they will retain.
6. Encourage participation in all school opportunities available to them.
7. Subscriptions to relevant magazines will provide opportunities to study aspects of life in other countries.
8. Similarly look out for TV programmes about target language countries.
9. Encourage your child to use the websites suggested by their teacher – there will be listening, speaking, reading and writing activities, as well as more competitive activities for them to use.
10. When completing any written work, ensure that they have all their resources around them before they begin. Suggest that they come back to it another day and check it through again, and the final piece should be completed at a third and final session.
11. There are many young people's books which are printed in target language – Harry Potter, The Young James Bond. Encourage your child to read one in the target language that they have previously read in English.



## COMPUTING

1. You should be using ICT and computing for your own needs and interests outside of simply communicating. You should often be helping or working with others on projects or small businesses.
2. You need to keep an eye on the ever changing digital environment and political/ethical/moral issues raised.
3. In addition, there are many groups with IT and Computing expertise available for you to consult outside school such as 'Hack space', 'Ted talks' and 'Udacity'. These will all help to progress your knowledge and understanding.
4. Raspberry Pi computers are affordable and there is a lot you can do with them.
5. Download some programming environments e.g. Python, VB Studio, Java and learn how to make your own programs. There are plenty of resources on the internet.

