

Summary

This advice sheet contains a checklist of criteria, originally compiled by the QCDA (Qualifications and Curriculum Development Agency), to help with identifying learners who are demonstrating high learning potential in mathematics. It is aimed at secondary school subject teachers, as well as high learning potential lead teachers.

Below is a list of the characteristics commonly shown by learners who are demonstrating high learning potential in mathematics. A learner need not be showing all of these to be considered a high potential learner, but would most likely be demonstrating a majority of them.

Learners who show high learning potential in mathematics:

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| • Learn and understand mathematical ideas quickly |
| • Work systematically and accurately |
| • Are more analytical |
| • Think logically and see mathematical relationships |
| • Make connections between the concepts they have learned |
| • Identify patterns easily |
| • Apply their knowledge to new or unfamiliar contexts |
| • Communicate their reasoning and justify their methods |
| • Ask questions that show clear understanding of, and curiosity about, mathematics |
| • Take a creative approach to solving mathematical problems |
| • Sustain their concentration throughout longer tasks and persist in seeking solutions |
| • Are more adept at posing their own questions and pursuing lines of enquiry |

Further Information

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| http://nrich.maths.org/5713 | Working with Highly Able Mathematicians on the Nrich Maths website |
| http://webarchive.nationalarchives.gov.uk/20110809101133/http://nsonline.org.uk/node/175140 | Archived National Strategies Module 14: Gifted and talented provision in mathematics |
| https://www.tes.co.uk/article.aspx?storyCode=6080848 | TES gifted and talented secondary maths resources |
| <i>Meeting the Needs of Your Most Able Pupils in Mathematics</i> by Lynne McClure and Jennifer Piggott | Book published by David Fulton with guidance on identification, planning, differentiation and support. Also has CD with lesson plans. |
| <i>Extension Mathematics: Year 7: Alpha</i> by Tony Gardinier | This book consists of tightly focused sets of problems, with each set devoted to core ideas from the Framework but approached in a way that cultivates more profound mathematical thinking. |

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