

Subject Identification Criteria for More Able Pupils (MAPs)

Mathematics

More able learners in Mathematics may display a selection of the following characteristics:

- Rapid and sound memorisation of mathematical material
- Learn and understand mathematical ideas quickly
- Reason logically: can verify, justify and prove
- Work systematically and accurately
- More analytical
- Recognise patterns easily and see the formal structure of a problem in a way that leads to ideas for action
- Use mathematical symbols accurately and confidently as part of the thinking process
- Make jumps in reasoning
- Think flexibly, adapting problem-solving approaches
- Demonstrate curiosity and enthusiasm for mathematical problems
- Make connections between the concepts they have learned
- Can take a creative approach to solving mathematical problems
- Reverse their direction of thought – may work backwards and forwards when solving a problem
- Communicate their reasoning and justify their methods
- Sustain their concentration throughout longer tasks and persist in seeking solutions
- Enjoy working at increased depth
- Adept at posing their own questions and pursuing lines of enquiry
- Take delight in numbers and use them in other areas of the curriculum, e.g. storytelling
- Enjoy mathematical puzzles and problems
- Ask lots of questions

NB: Some learners who are highly able in mathematics perform at levels that are unusually advanced for their age. It is recommended to challenge the pupil with broad but challenging enrichment and extension activities, rather than accelerate through the curriculum.

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Activities that MAPs should do:

- <https://corbettmaths.com/more/corbetts-conundrums/> 365 difficult maths problems
- Analyse and critique the numbers they see every day
 - Shopping – best value/budgets
 - Newspaper reports – data representation/percentages
 - Social media, if appropriate – likes/retweets/comments
- Follow maths-relevant feeds on social media, if relevant
- Puzzles – crosswords/Sudoku/code breakers

How can parents support MAPs:

- More able learners in Maths are often interested in solving puzzles, coding, and logic games. There is a great selection of board games, card games, and puzzle books that require logical thinking which can be played at home. A few suggestions are: Chess, Mastermind, Pandemic and Catan, as well as Sudoku and other number puzzles. Children are also encouraged to engage with GCHQ style problem-solving books
- Talk to children about the Maths they have learnt that day
 - Can they describe it/teach it to you?
 - Can they explain their prep?
- Involve them in everyday mathematics
 - Shopping budgets
 - Monthly bills – gas meters, water usage, etc.
 - Timetables/scheduling