# Mathematics Home Lending Project

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## Abstract

Some students in schools are now being identified as “gifted and/or talented” in many of the curricular subjects. Provision for these students is often in the form of a distinct teaching and learning programme. It is important to examine the contributions to these programmes that can be made by the parents. I show that parents can be an integral component of provision within mathematics. My research shows that parents can provide out of school support that encompasses ICT to develop problem-solving strategies.

## Contents

## Introduction

1. When I applied for the Best Practice Research Scholarship (BPRS) I had three distinct and quite ambitious aims.

    - To devise a programme for *Gifted and Talented* (G&T) children in mathematics encompassing out of school support from parents

    - To develop a range of activities that promote thinking skills and apply mathematics to problem solving situations

    - To explore pupil attitudes towards the use of ICT to share problem solving strategies

2. These aims were based on my situation at the time; Head of Mathematics and the newly appointed school G&T Co-ordinator (since Doncaster had just started the Excellence in Cities (EiC) Initiative).

3. I had also been using materials from the Task Centre Project (developed by Curriculum Corporation, Australia) since 1996 trying to develop hands-on problem solving in the mainstream mathematics classroom. I believed that the types of work students could generate using these materials could be transferred to the home environment.

## Literature Survey

4. I began the research by considering the problem of identification. Who were the G&T pupils in the school and how did I know?

5. Researching the issue of identification of G&T pupils in mathematics led me to the work of Kennard (1996) and Koshy (2001). Both authors drew on the work of Krutestski (1976) whose observations of characteristics of able children in mathematics have guided research studies ever since. In fact the Department for Education and Skills (DfES) guidance on teaching G&T pupils lists subject specific characteristic checklists to help teachers identify pupils with high ability. In developing his theory of multiple intelligences Gardner (1993) has also characterised mathematical ability.

6. I was particularly interested in characteristic abilities associated with mathematically able children of secondary school age. Kennard (1996, p9) tabulates a summary of abilities based on Krutestski's model with "additional points of interpretation emphasising links with related studies". These additional points are processes such as reasoning, analysing, using symbols, justifying and explaining. In essence these characteristics lead to the process of problem solving using thinking skills. Koshy (2001, p51) states, " There is a notable absence of recent research literature in the UK about teaching problem solving". Many references to problem solving note the contribution of Polya (1945) and his four-step approach. Burton (1986) offers advice and starting points based on her research with pupils aged 9 and 13. Holton and Lovitt (1998) discuss the definition of problem solving and issues related to teaching the process in the classroom.

7. I started to think about how characteristics I had observed with pupils in the classroom would help me identify the mathematically able children in my school. One aspect I had noticed was the "higher order" thinking skills that underpin Bloom's taxonomy. Those pupils who engaged in the "working mathematically" process started to take ownership of the tasks in which they were involved. This was particularly true of the able pupils.

8. The National Curriculum for mathematics (DfEE/QCA 1999) gives statements at the end of each attainment target that are intended to help teachers differentiate work for very able pupils. The statements for exceptional performance emphasise processes such as reasoning, analysing, using symbols, justifying and explaining. These are consistent with the ideas of problem solving. However "exceptional performance" to me indicates pupils who are working far in advance of the attainment expected at Key Stage 3. My cohort of pupils had finished Key Stage 2 only one term earlier, and for them Level 6 would represent "exceptional performance". The Excellence in Cities (EiC) Initiative literature provided a definition more appropriate to my school. The criteria for a G&T cohort should be to comprise "pupils who achieve, or have the ability to achieve, at a level significantly in advance of the average for their year group in their school" (DfEE 2000 p39).

9. I concluded that no single measure of ability would be suitable to identify the mathematically able pupils within the school. However, I needed to use a consistent measure that would allow the research to take place with the minimum of disruption to the school. The senior management team had recently introduced a broad banding system into the curriculum. This had resulted in all pupils with Level 5 for English, mathematics and science being placed in one teaching group. I decided to focus the project on these pupils (the highest attaining pupils in the year group) and also include pupils with Level 5 in mathematics that had been placed in other classes. In this way I could compare the performances of pupils outside my own teaching group and I had included all those "high attaining" pupils from Key Stage 2 assessments.

## Research Focus/Question

10. My research at this stage had refined my concept of "able pupils in mathematics" at my school and how I could identify them. I realised that their programme would need to impact on both achievement and attainment.

11. I organised what I called a "Home Lending Project" where pupils were sent home with a mathematical problem and the necessary equipment for it to be solved. I encouraged them to work with their parents and if they got stuck to use an e-mail buddy. The e-mail contacts were from the other EiC Network schools, which were resourced with the same materials from the "Starting Maths300" project devised by Curriculum Corporation, Australia. I also managed to find other schools in Australia, Tasmania and Sweden who were familiar with the tasks and could add an international dimension.

12. Pupils were encouraged to record their progress in a journal and to include comments and ideas from their parents. In this way I hoped I would have a record of progress from each pupil with my original aims.

## Research Methods

13. Koshy (2001, p25) discusses some of the issues of involving parents and states "Parent questionnaires and surveys are often very useful". To collect evidence from parents, both before and after the project, I used data from questionnaires. At the launch meeting for the project, which involved 40 pupils, parents were asked to complete a brief questionnaire about their child's prior learning and access to ICT facilities (see Appendix A).

14. At the end of the project another questionnaire was sent to parents (Appendix B). This time I asked them to read a series of statements related to my original aims and record the strength of their agreement on a six-point Likert Scale. The choice of a six-point scale was deliberate, allowing me to broadly classify agreement (1 – 3) and disagreement (4 – 6). When I designed this questionnaire I decided to ask some questions of a similar nature so that I could check to see if the responses were consistent. For example, questions 8, 12 and 13 all measure strength of feeling relating to "parental involvement". These were useful to me in monitoring the impact of my first aim.

15. I used small group and individual pupil semi-structured interviews to measure the success of the project with the pupils. In fact both the LEA Strand Co-ordinator for G&T pupils and my mentor at Sheffield Hallam University interviewed small groups of pupils whilst they were still involved in the Home Lending Project. In each case the interviews focused on 5 themes - ways of working, feelings about mathematics as a subject, involvement of parents, discussing their work and perceptions of their own ability.

16. I intend to run another Home lending Project during 2002/2003 and will compare the parental responses and the final attainment of the pupils between the two cohorts. If the trend demonstrates this project is having an impact on achievement, attainment and attitude I would suggest that the new Head of Mathematics in the school extends the provision to more pupils in Year 7 and subsequently throughout Key Stage 3.

## Results

17. I received 22 replies from the 40 pupils represented (55%) for the initial questionnaire to parents documented in Appendix A. The results, rounded to the nearest integer, showed that 91% of parents were aware that their child was able in mathematics compared to other children in the school of the same age. Only 9% (2 parents) in the sample were unaware of their child's National Curriculum level from Key Stage 2 assessment. Homework was done in isolation by 27% of pupils, and where parent support was acknowledged a mean time per week of 66 minutes was devoted to mathematics. The ICT profile showed 77% of pupils had access to the Internet at home and 64% were able to send and receive e-mail. The last question in the baseline questionnaire was to me the most interesting. The parent's results showed that 77% thought their child enjoyed doing problems that required them to think! Against this baseline background I had ventured into my project.

18. Only 11 replies were received from the 40 families sampled (28%) for the parents' questionnaire at the end of the project. I entered this data into a spreadsheet, labelling the replies A – K. This allowed me to calculate quickly the mean and variance for the scores question by question. A summary of the data appears as table 1.

19. The calculations on this data show 11 statements with a mean score of less than 3, which I interpreted as the statements where the parent's sample showed "broad agreement". There were 6 statements with a mean score greater than 3, interpreted as "broad disagreement". One statement in particular (statement 5) stood out because the variance was small, indicating a high degree of consistency from the respondents. Here the parents, in general, did not believe that the Home Lending Project had changed the attitudes of their children towards mathematics.

20. The pupils were allowed to choose their own tasks. I kept a record of the tasks they had selected and the date they took it home (Appendix C). Two tasks in particular became very popular, "Soma Cube 2" and "Hearts and Loops". These were also popular with parents and were often the topic of discussion when we met. The table allowed me to

monitor the nature of the activities the pupils were selecting; number, algebra, shape and space or data handling. When I contributed to their journals I was able to see how deep they had explored the task. I viewed each of the tasks as the "tip of a mathematical iceberg" and that progress beyond the instructions on the card illustrated that the pupils were exploring one aspect of mathematics to a greater level.

| Respondent | A | B | C | D | E | F | G | H | I | J | K | Mean | Variance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 4 | 1 | 2 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 2.09 | 2.81 |
| Q2 | 3 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 1 | 2 | 4 | 2.00 | 0.91 |
| Q3 | 4 | 3 | 2 | 6 | 1 | 2 | 3 | 1 | 2 | 1 | 5 | 2.73 | 2.56 |
| Q4 | 5 | 5 | 2 | 3 | 1 | 6 | 6 | 2 | 2 | 2 | 2 | 3.27 | 3.11 |
| Q5 | 3 | 3 | 3 | 5 | 3 | 3 | 4 | 2 | 4 | 4 | 5 | 3.55 | 0.79 |
| Q6 | 4 | 3 | 3 | 5 | 2 | 3 | 2 | 1 | 4 | 3 | 5 | 3.18 | 1.42 |
| Q7 | 3 | 2 | 2 | 5 | 1 | 1 | 1 | 1 | 4 | 2 | 5 | 2.45 | 2.25 |
| Q8 | 6 | 1 | 1 | 5 | 2 | 1 | 2 | 1 | 2 | 3 | 4 | 2.55 | 2.79 |
| Q9 | 5 | 4 | 1 | 5 | 3 | 1 | 6 | 1 | 3 | 3 | 5 | 3.36 | 2.96 |
| Q10 | 2 | 1 | 1 | 5 | 1 | 4 | 1 | 2 | 1 | 1 | 6 | 2.27 | 3.11 |
| Q11 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 2 | 1 | 6 | 6 | 2.45 | 4.79 |
| Q12 | 6 | 1 | 6 | 5 | 6 | 2 | 6 | 3 | 3 | 4 | 4 | 4.18 | 2.88 |
| Q13 | 6 | 1 | 6 | 5 | 6 | 2 | 6 | 3 | 3 | 6 | 5 | 4.45 | 3.16 |
| Q14 | 3 | 1 | 2 | 5 | 1 | 1 | 2 | 1 | 4 | 3 | 4 | 2.45 | 1.88 |
| Q15 | 5 | 3 | 2 | 5 | 1 | 2 | 1 | 1 | 3 | 3 | 5 | 2.82 | 2.33 |
| Q16 | 3 | 1 | 2 | 6 | 1 | 2 | 1 | 1 | 1 | 1 | 5 | 2.18 | 2.88 |
| Q17 | 6 | 1 | 1 | 5 | 1 | 1 | 2 | 1 | 2 | 1 | 5 | 2.36 | 3.50 |
| Q18 | DK | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 5 | 2 | 1 | | |
| Q19 | 5 | 6 | M | 2 | 5 | DK | DK | 3 | M | 2 | 2 | | |
| Q20 | 0 | 1 | 1 | 2 | 0.5 | 1 | 2 | 1 | 2 | 1 | <1 | | |

Table 1

21. The series of pupil interviews also had consistent outcomes. The pupils enjoyed this type of working and found it both challenging and frustrating. There was no real consensus about their feelings of mathematics as a subject, indicating perhaps that there was not a significant change in their attitudes. The pupils did feel quite strongly that their parents were more involved (which was consistent with Q8 from the parent's questionnaire) and that the parents were learning more from them than they were from their parents! All pupils had managed to use e-mail to exchange work and they frequently stated that the e-mail buddy aspect kept them interested in the problem once they had reached the frustration phase. Being able to send and receive e-mails (especially on an international basis) had made the project "extra special". Particular note should be made of the use of digital photograph attachments. When the pupils received these from

Sweden it caused greater interest and amazement at the fact that the same equipment was being used somewhere else in the world! Almost unanimously these pupils thought they were good at mathematics and they were very proud about their journals.

22. The interview feedback from pupils suggested that they enjoyed this method of learning and that they wanted it to continue. The visit to Sheffield Hallam University in June 2002 was very popular, for all pupils the first University they had ever visited.

23. Koshy refers to the work of Skemp (1976) about the role of understanding in mathematics. I believed that my project did involve the pupils in constructing their own learning and their understanding of concepts. This could have been a contributing factor to the attainment performances of these pupils in both the QCA Optional Tests at the end of Year 7 and the UK Junior Mathematics Challenge. From this class of 30 pupils 22 attained Level 6 using the Optional Tests and 1 pupil attained Level 7 on a Key Stage 3 paper at tier 6 – 8. In the UK Junior Mathematics Challenge the school had its best results ever (see table 2) with 27% of the pupils winning one of the three certificates.

Year 7 UK Junior Mathematics Challenge Results

| Year | Gold | Silver | Bronze |
|---|---|---|---|
| 2002 | 2 | 1 | 5 |
| 2001 | 0 | 0 | 1 |
| 2000 | 0 | 0 | 6 |
| 1999 | 0 | 1 | 2 |
| 1998 | 0 | 1 | 2 |

Table 2

24. I would like in future to perhaps investigate this significant improvement, from entry cohorts of the same size, to measure impact from the Home Lending Project on the problem solving aspects of this National competition.

25. Eyre (2000, p86) presents the case for mathematics being the subject area with the greatest problem with pace. She suggests that this would be one subject where you might expect to find pupils working from the next Key Stage. I started to reflect on my thoughts

about the issues related to the different aspects of "accelerated learning". My project was more a model of "enrichment" and hopefully had the characteristics of both sustainability and manageability as these pupils moved through Key Stage 3. I was very aware of the possibilities for individual pupils to explore one task in depth. I had already documented one case with a pupil using these materials; Martin, A. (2000), " *The Sphinx Task Centre Problem"*, *Maths in Schools,* (May p 6-10). In this case the pupil concerned started to work at almost expert level and became involved in generalising his solutions in order to develop a proof.

26. This approach to mathematics problem solving continues to surprise me in terms of pupil achievement. I had already been able to introduce proof by contradiction into my work with Year 8 pupils; Martin, A. (2000), "*Mathematics Task Centres*", *Maths in Schools* (March p 21-23). Exploring the iceberg aspect of some of these tasks had allowed me to develop a mixed media approach to teaching topics in Key Stage 3; Martin, A. (2001), " *The River Crossing Task Centre Problem*", *Maths in Schools* (January p 26-31). The work with these pupils, and the outcomes of the parent workshop when we launched the Home Lending Project, has inspired me to write another article about the use of dominoes in the classroom. Here for the first time I can include contributions from parents. When working with their child some parents had discovered solutions of which I was unaware. These solutions prompted many pupils to continue to search for answers when they might otherwise have given up. I hope this article will be published in *Maths in Schools* during 2003.

## Evaluation

27. Management of change is really effective when you can share good practice and learn from other people. So, I decided to contribute the outcomes of some of my work onto the Maths300 website, particularly the *Classroom Contributions* section. This website is a web-based project which aims to support teachers in the delivery of excellent mathematics education. One aim is to share resources and approaches for the best 300 lessons from across the world. The lessons on the site have all been trialled by teachers and come with extensive notes, downloadable software and the living *Classroom Contributions* section. I have found this website very useful as I explore how to include more kinaesthetic learning in my mathematics lessons.

28. I intend to run another Home lending Project during 2002/2003 and will compare the parental responses and the final attainment of the pupils between the two cohorts. If the trend demonstrates this project is having an impact on achievement, attainment and attitude I would suggest that the new Head of Mathematics in the school extends the provision to more pupils in Year 7 and subsequently throughout Key Stage 3.

29. I wish to continue my own professional development within this aspect of education. I have started a Certificate of Advanced Professional Practice (M Level) at Oxford Brookes University as part of the National G&T Co-ordinators training with EiC. I will need to discuss with my tutor if these points can be accredited towards a masters degree at Sheffield Hallam University.

30. My school is an 11-19 co-educational comprehensive of about 1300 pupils. It was inspected in November 2000 and placed in the "serious weaknesses" category by OfSTED. It has also received School Achievement Awards in 2000 and 2001 from the DfES. In September 2001 the school was included in EiC (phase 3) and now has the resources to continue to develop distinct teaching and learning programmes for its able pupils.

31. I think the school now needs to consider how to continue to develop its partnership with parents and involve the pupils in more out-of-hours learning opportunities. The community is socially disadvantaged

so access to new technologies will be fundamental if the school is to succeed in its quest to raise aspirations as well as achievement and attainment. Can the outcomes from this BPRS Project be utilised in any other curriculum area?

32. Since the sample size for this BPRS Project was very small I would like to expand the research project either to more pupils within a Year cohort, or across the EiC Network of schools. I believe that this type of learning does encourage pupils thinking and the development of skills needed to be a successful mathematician. I would like to be able to spend more time on the statistical evidence base for the research, and show, using more advanced statistical measures, the quantitative improvement in pupil performance.

## Conclusion

33. The key learning points raised during my research fit into the distinct categories of identification, classroom provision and management. Trying to define ability is very complex. Identifying able pupils in mathematics is not straightforward, especially as *ability* and *attainment* are not the same thing.

34. Eyre (2000, p19) refers to the summary of qualities for able pupils in mathematics proposed by Kennard. I have now shared this with colleagues to help with teacher nominations in the identification phase for G&T pupils at my school. In this way we do not simply identify able pupils by prior attainment only.

35. The Home Lending Project has been an effective method of providing able pupils with a range of preferred learning styles that encompass support from their parents. The tasks have prompted them to ask more probing questions and begin the process of working like a mathematician. I believe my pupils are now more likely to pose the "What if….?" question when discussing different strategies to solve the problems.

## Future Action

36. The use of e-mail buddies is very motivating, especially when there is an international perspective. I would like to see more research in this field, especially where links to the different national programmes could make the networking of interested teachers more straightforward.

37. Developments such as Maths300 should be applauded, and I would like to see how the impact of an initiative like this could be measured in some way. In particular, how the *Classroom Contributions* section can encourage teachers to take the next step with more innovative approaches to teaching and learning in mathematics.

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### Articles In Journals


1. Skemp, R., (1976), *Relational Understanding and Instrumental Understanding*, Mathematics teaching, December 1976
2. Martin, A. (2000), *The Sphinx Task Centre Problem*, Maths in Schools, May 2000
3. Martin, A. (2000), *Mathematics Task Centres*, Maths in Schools, March 2000
4. Martin, A. (2001), *The River Crossing Task Centre Problem*, Maths in Schools, January 2001


### Useful websites

http://opac.shu.ac.uk ... http://www.curriculum.edu.au/maths300
http://www.blackdouglas.com.au/taskcentre ... http://fcis.brookes.ac.uk

## Appendix A

## Mathematics Questionnaire for Parents

Please take a few moments to complete this questionnaire. Your responses will be used to monitor the success of the "Home Lending Project" and help the school improve provision in the future.

Please circle the most appropriate response. If you wish to give additional information please write on the reverse of this sheet.

1. Were you aware of that your child was able in mathematics compared to other children of the same age?

   Yes  No  Don't know

2. What National Curriculum Level did your child achieve in mathematics at Key Stage 2?

   4  5  6  7  Don't know

3. Do you spend time with your child doing mathematics homework?

   Yes  No

   If yes, approximately how long per week? …….

4. Does your child have access to the Internet at home?

   Yes  No

5. Can your child send and receive e-mail?

   Yes  No  Don't know

6. Does your child enjoy doing problems that require them to think?

   Yes  No  Don't know

## Appendix B

## Mathematics Questionnaire for Parents

Please take a few moments to complete this questionnaire. Your responses will be used to monitor the successes of the "Home Lending Project" and help the school improve the provision for able pupils in the future.

For each of the following statements please circle the most appropriate response on the 0 – 6 scale. Circle 1 if you strongly agree, 6 if you strongly disagree or one the intermediate values depending upon your strength of feeling.

| | | Responses | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | My child has enjoyed the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | The tasks were challenging for my child | 1 | 2 | 3 | 4 | 5 | 6 |
| 3 | My child had plenty to think about when working on the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 4 | My child became frustrated when they got stuck | 1 | 2 | 3 | 4 | 5 | 6 |
| 5 | My child's attitude towards mathematics has changed because of the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 6 | My child's motivation has been improved by the Home Lending Project tasks | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | My child is more confident with mathematical problem solving because of this project | 1 | 2 | 3 | 4 | 5 | 6 |
| 8 | I feel involved with my child's mathematics homework because of the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 9 | Our family discussed mathematics because of the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 10 | My child was able to send and receive e-mail as part of the project | 1 | 2 | 3 | 4 | 5 | 6 |
| 11 | I read the e-mail that my child received as part of the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 12 | I contributed to my child's journal during the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 13 | I felt involved because I could write in the mathematics journal | 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | I believe my child has improved in mathematics because of the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |
| 15 | My child is better at explaining mathematics now | 1 | 2 | 3 | 4 | 5 | 6 |
| 16 | My child has enjoyed learning about mathematics using the tasks | 1 | 2 | 3 | 4 | 5 | 6 |
| 17 | I have learnt some mathematics from the Home Lending Project | 1 | 2 | 3 | 4 | 5 | 6 |

For each of the following questions please circle the best estimate for your child.

18 How many hours did your child spend on the tasks each week?

1 2 3 4 5 More Don't know

19 How many e-mails did your child send and receive?

0 1 2 3 4 5 More Don't know

20 How many hours each week did you spend helping your child with the tasks?

0 1 2 3 More Other: please specify .....

Please use the remaining space to make any comments about this project. These will be treated in confidence and used to help the school improve future provision.

Please return this form by Friday 12th July 2002.

# Appendix C: Record of Lending Tasks

| Name | A rectangle of squares | A stacking problem | Chess Queens | Dice differences | Eric the sheep | Eureka | First down the mountain | Four in a row | Garden beds | Hearts and loops | Highest number 2 | Magic cube | Mirror patterns 2 | Protons and antiprotons | Snail trail | Soma cube 2 | Sphinx | Tower of Hanoi | Truth tiles 2 | Win at the fair | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rebecca | | | | | 18/2 | 13/6 | 28/5 | 28/1 | 15/4 | 9/5 | | | 14/1 | | | | | 14/3 | | | 8 |
| Rachael | 18/2 | 13/6 | | | 15/4 | 9/5 | 4/3 | | 28/1 | | | | | | 20/5 | 14/1 | | | 14/3 | | 9 |
| Nathan | | | 14/1 | | | | 15/4 | | 13/6 | 13/2 | | | | | | | 4/3 | 28/1 | | | 6 |
| Tanya | | | 4/3 | | 14/3 | 17/6 | 15/4 | 19/2 | | 14/1 | | 28/5 | | | | 28/1 | 9/5 | | | | 9 |
| Clare | | | | 13/6 | 28/1 | | 4/3 | 14/2 | | 15/4 | 18/2 | 14/1 | | | | 13/6 | | 9/5 | | 28/5 | 10 |
| James | | | 14/1 | | | | | | | | | | | | | | | | | | 1 |
| Adam | | | | | | 14/1 | | | | 4/3 | | 15/4 | | | | | | | | 13/6 | 4 |
| Anthony | | | | 14/1 | | | | | 15/4 | 14/2 | 18/2 | 4/3 | | | | | | | | 28/1 | 6 |
| Charlotte | | | | | | | | | | 14/1 | | 14/3 | 9/5 | | 28/1 | | | 15/4 | | | 5 |
| Danielle | 13/6 | | | 28/1 | | 20/5 | | | 4/3 | 14/3 | | 28/1 | 18/2 | 17/6 | | 27/5 | 9/5 | 28/5 | | | 11 |
| Aiden | | | 15/4 | | | | | | | 18/2 | | | 14/3 | 14/1 | | 4/3 | 28/1 | | | | 6 |
| Linsey | 4/3 | 18/2 | | | 14/1 | | | | 9/5 | | | | | | 13/6 | | | | | | 5 |
| Harriet | | 9/5 | | | | | | | 14/1 | 13/5 | | | | 14/2 | | 18/2 | 27/5 | | | | 6 |
| Stewart | 13/5 | 20/5 | | | | 14/3 | | | | 4/3 | | 15/4 | | | | 28/1 | 18/2 | | | 14/1 | 8 |
| Emma | | 14/3 | | | | | | | | 4/3 | 15/4 | | | | 9/5 | 13/6 | 14/1 | 18/2 | 28/1 | 20/5 | 9 |
| Danielle | | | | | 4/3 | 18/2 | | | | 15/4 | 13/5 | | | | | | | | 14/3 | 28/1 | 6 |
| Thomas | | | | | 9/5 | 14/1 | | | 7/2 | | | | | | | | | | | 18/2 | 4 |
| Jodie | 15/4 | | 17/6 | | | 28/1 | | 14/1 | 13/6 | 27/5 | 14/3 | | | | | | | 4/3 | 18/2 | 9/5 | 10 |
| Scott | 17/6 | | 14/3 | | 13/5 | | | | | | 14/1 | 28/1 | | | | 18/2 | | 4/3 | | 15/4 | 8 |
| Alan | 14/3 | | 18/2 | | | 20/5 | 28/1 | | | 13/6 | 27/5 | | | 9/5 | 14/3 | 17/6 | | | 14/1 | | 10 |
| Danielle | | | | | | | 28/1 | | | | 18/2 | | | 13/6 | 14/1 | | | | 17/6 | | 5 |
| James S | | 14/1 | | | | | | | | | | 18/2 | | | | 14/3 | 28/1 | | | 4/3 | 5 |
| Marcus | 14/1 | | | 4/3 | | 9/5 | | | | 13/6 | 14/3 | | | 28/1 | | 18/2 | | | 15/4 | | 8 |
| Natasha | | | 15/4 | 18/2 | | | | | | | | | | | 28/1 | | 4/3 | | 14/1 | | 5 |
| Joshua | | | | 13/5 | | | 18/2 | 15/4 | | | 17/6 | | | 27/5 | | | | | | 14/1 | 6 |
| Hannah | | | | | 14/3 | | | | | 18/2 | 9/5 | | | | 20/5 | 4/3 | | 14/1 | | 17/6 | 7 |
| Katherine | | 14/1 | | 27/5 | 4/3 | | 14/3 | | | | | | 28/1 | | | 9/5 | | 13/6 | 18/2 | | 8 |
| Laura | 18/2 | | | 9/5 | | | | | | 28/1 | | | | | 14/3 | | 27/5 | | | | 5 |
| Hollie | | | | | | | | | | 14/1 | 28/1 | | | | 18/2 | | | | 9/5 | | 4 |
| Total | 9 | 7 | 8 | 8 | 10 | 11 | 9 | 5 | 9 | 19 | 12 | 9 | 5 | 7 | 10 | 14 | 10 | 10 | 10 | 12 | 194 |