JUMP in LAMBETH 2007

Evaluation and impact on the KS2 national tests

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INTRODUCTION

JUMP (Junior Undiscovered Mathematics Prodigies) mathematics is a teaching programme developed by Canadian author and mathematician John Mighton. Its basic premise is that all children in mainstream schools, including those children with special educational needs or a history of failure in the subject, can excel at mathematics. Success in mathematics, which is well within the grasp of all children, develops the confidence and the cognitive abilities that children need to do well in other subjects. The targeted and creative use of questioning, praise and encouragement by the teacher creates the classroom atmosphere where all can succeed.

JUMP mathematics envisages a fully numerate society, “... when the teaching of mathematics is brought to children and adults – but especially to children – in an exciting and dynamic way and where all who experience mathematics through such teaching become successful at math and, thereby, are helped to realise their potential as full and functioning members of society.”

During the 2006 summer term, 24 Lambeth primary schools participated in a pilot programme to evaluate the JUMP mathematics methods and materials. The findings of the pilot programme were presented in a report in September 2006 (JUMP Mathematics Lambeth Pilot Programme Evaluation), identifying benefits and constraints in the use of JUMP in Lambeth schools, and possible ways forward.

Following on from the success of the pilot, work continued and developed in 40 (out of 59) Lambeth primary schools. Schools that had participated in the pilot were provided with a full set of all JUMP materials (Y3-Y6) for teachers to adapt and use as they saw fit within the requirements of the National Curriculum for mathematics and the guidance of the mathematics strand of the Primary National Strategy. Schools that had not participated in the pilot were invited to re-run the pilot programme (keeping the same structure and content and focusing on the same group of pupils in Y5) in January 2007. Schools that were participating in national and Lambeth-specific whole school improvement programmes (Intensifying Support Programme, Best for All Our Children), were invited to re-run the pilot programme (keeping the same structure and content and focusing on the same group of pupils in Y5 and Y6) in the autumn term 2006. General principles and guidelines for implementation were given to all schools, but these were adapted as necessary to suit school resourcing, timetabling and general circumstances.

Full statistical details of pupil achievement in the 2007 national tests for KS2 are given in section 4 but the headlines on the results, and implications for work during 2007-08, are outlined here:

Headlines:

-- Of the 454 children participating in the JUMP programme, 150 (33%) achieved Level 4 in the national tests at the end of Year 6. These children constituted 18% of the Level 4 achievement in the participating schools and 6% of the entire Year 6 Lambeth cohort.

-- The performance of the JUMP children in the mental mathematics paper was consistently lower than their scores in the written papers might lead one to expect.

-- Of the 154 children who were at Level 3c pre-JUMP (that is, 2 years below age-related expectations), 107 children (69%) were at or close to age-related expectations one school year later.
-- Half of the JUMP children (225, 50%) made at least two sub-levels of progress through the year. This was an acceleration on their progress in earlier years (otherwise they would not have been so far below age-related expectations at the end of Year 5).

This paper is the first of several documenting the continuing implementation of JUMP in Lambeth. Further documents planned include an evaluation of the use of JUMP in other year groups (Spring 2008), a case study of a school that has been particularly successful in using JUMP to raise standards overall, and work currently planned for the use of JUMP in special schools, pupil referral units and additional educational provision.
THE LAMBETH CONTEXT

The London Borough of Lambeth is geographically small but culturally, socially and ethnically very diverse.

Lambeth has a resident population of 266,170 (the highest resident population of Inner London) which continues to expand, and a school population of 62,000. Lambeth’s school population has shown significant growth over recent years (9% since 1997) and is expected to continue at an even greater rate over the coming years. The resident population of 0-19 year olds in Lambeth is 67,000, with 79% of our school children and young people being from black and minority ethnic groups, the largest of which are black Caribbean and black African. The Portuguese and Somali populations also continue to grow.

In addition to English, 149 community languages are spoken in Lambeth schools, with Portuguese and Yoruba the main languages after English. As a port authority (until the relocation of the Eurostar train service from Waterloo to St Pancras in November 2007) Lambeth has a significant refugee population. This affects the mobility of pupils in our schools, with up to 25% of pupils moving each year, other than at the end of a key stage. Lambeth ranks as one of the 50 most deprived local authorities in England and Wales. The official unemployment rate is just over 8% and 38% of pupils receive free school meals. Lambeth is also home to the world class South Bank Arts complex, the London Eye (Millennium Wheel), the Oval cricket ground, the National Film Theatre, several major employers as well as substantial numbers of small businesses.

The diversity of Lambeth’s population is a strength to be celebrated and reflected in all aspects of schooling. The population of Lambeth is 63% white and 37% black and other minority ethnic (BME) groups, and although the population is set to rise by 35,600 over the next 20 years, these proportions are expected to remain the same.

The great majority (over 79%) of Lambeth’s school population is from BME groups. The largest groups are black African (24.1%) and black Caribbean (19.6%) followed by white British (18.6%). Figures in the GLA Ethnic Origin Group Population Projections report published by the Corporate Policy Unit suggest that Lambeth will remain a young borough over the next 20 years, with most increases occurring in the 0-19 and 20-44 year old age groups.

There were 79 schools in Lambeth during the 2005-06 school year, comprising 5 nursery, 59 primary, 10 secondary schools and one academy, 5 special schools and 2 pupil referral units. Of the pupils educated in Lambeth, 88.4% are residents in the borough (11.6% residing elsewhere). There are relatively more imported pupils (25.5%) in secondary schools than in primary schools (6.2%) and special schools (16.4%).

One in three Lambeth children is considered vulnerable at some stage; at any one time approximately 650 children are looked after by the Council. There are also approximately 180 unaccompanied asylum-seeking children and 225 children on the child protection register. Following the end of the 2005-06 academic year, the number of 16-18 year olds not in education, employment or training fell to 10.1%, the lowest ever recorded in Lambeth.
BACKGROUND TO THE USE OF JUMP IN LAMBETH

The JUMP mathematics programme was developed by mathematician and author John Mighton, and has had considerable success in Canada. John Mighton visited Lambeth in 2005, and a pre-pilot that ran for two weeks at a Lambeth primary school in summer that year was well-received. Positive findings from this led to a follow-up visit to Toronto in February 2006, and all Lambeth schools were invited to participate in a pilot programme during the summer term 2006. The success of the pilot exceeded expectations, and justified the development and extension of the work through the 2006-07 school year. (The findings of the pilot programme were presented in a report in September 2006: JUMP Mathematics Lambeth Pilot Programme Evaluation, identifying benefits and constraints in the use of JUMP in Lambeth schools, and possible ways forward.)

RATIONALE AND GUIDING PRINCIPLES

The development of the JUMP programme in Lambeth has, up until the end of the 2006-07 school year, focused on those children who are still working well below age-related expectations in upper KS2. This was a deliberate and carefully thought-out decision to ensure that these children were given the chance to benefit from whatever advantages JUMP might bring, but without jeopardising the years of work that have gone into implementing the NNS and then the mathematics strand of the PNS in Lambeth. The thinking was that for those children at or beyond age-related expectations, the daily mathematics lesson was sufficient to ensure that they achieved Level 4 at the end of Y6. For those children just below age-related expectations, there is a wealth of catch-up material provided by the PNS to bring them to the expected level at the end of Y6 (and Lambeth schools and teachers are experts in the successful use of these to achieve the required results). But there is a gap in the provision of whole-class support for children who are functioning well (ie 2-3 years) below expectations for their age group. These are the children that we targeted with the JUMP programme.

All schools (ex-pilot, non-pilot or supported), participated because they chose to do so.

EX-PILOT PROGRAMME SCHOOLS

Schools that had participated in the summer 2006 pilot were invited to scrutinise the range of JUMP materials (Grades 3-6) and make a decision on what they felt would suit their needs. The majority opted for continuing with the Grade 3 and Grade 4 materials in Years 5 and 6, using the Grade 4 materials for those Year 6 children who had used the Grade 3 materials during the Year 5 pilot. One school explored the use of the Grade 5 and Grade 6 materials for extension work with Y5 and Y6, but this was over-ambitious with hard-pressed teachers who had not undergone the JUMP training, and subsequently foundered with staffing changes.

NON-PILOT SCHOOLS

Schools that had not participated in the pilot were invited to training in January 2007, and asked to target the same group of pupils (ie Y5 children at Level 3c or below) for six weeks during the spring term, using the Fractions Unit and the relevant sections of the Grade 3 materials (pattern and number sense). This was in response to feedback from teachers from the pilot programme, who thought that the teaching sequence would bring better payoff if located at the beginning, rather than the end, of Year 5.
INTENSIVELY SUPPORTED SCHOOLS

Schools that were participating in national (ISP) or Lambeth-specific (BfA) whole-school improvement programmes were invited to training in the autumn term 2006, targeting the same group of pupils (ie children in Y5 and Y6 at Level 3c or below) for six weeks during the autumn term, using the Fractions Unit and the relevant sections of the Grade 3 materials (pattern and number sense). It was in these schools that some of the most significant gains in pupil achievement were seen – possibly because of the additional support afforded to teachers and school managers from the Standards team, including education advisers, teaching and learning consultants and outreach workers, as well as the sense of urgency all LA staff conveyed around the key issue of raising overall standards of achievement. However, results were not consistently high across all these schools and important work is currently being done to analyse the variations in results, to ensure that key messages about best and most effective practice are shared with all schools using the programme.

TRAINING

Teachers and teaching assistants attended two days of training prior to the teaching programme. The aim of this was to ensure that all colleagues understood the basic philosophy and principles of JUMP, and to ensure that teachers and teaching assistants had the time to develop familiarity with the JUMP methods and materials. Day 1 focused on the background to the pilot, the principles and philosophy of the JUMP method, and included a detailed examination of the content and the purpose of the Fractions Unit. Day 2 focused on the rest of the materials, made links to the NNS objectives, and provided planning time for teachers to prepare for the teaching sequence with the needs of the specifically selected pupils in mind.

SUPPORT FOR PARTICIPATING SCHOOLS

Schools received supply cover funding for teachers attending the training sessions (£145 per teacher per day). Teachers were also invited to attend a twilight progress meeting in December. A few teaching sessions were visited and observed by members of the Lambeth Standards team.

At the beginning of March 2007, the Primary Strategy Manager, who had been leading on the implementation of the JUMP programme, left for a 6-month sabbatical (returning in August 2007). During her absence, the main point of contact for teachers using the programme was a mathematics specialist on the Lambeth Primary Strategy team.
IMPACT ON THE 2007 NATIONAL TESTS FOR YEAR 6

1. Of the 40 schools that participated in the use of the JUMP mathematics programme in 2006-07, 31 schools used the materials in Year 6, with children who undertook the 2007 national tests for the end of KS2. The findings presented here are based on the pupil performance data submitted by 30 schools (454 children).

2. They are representative of a cross-section of Lambeth schools. They include schools in the Lambeth-specific BfA school improvement programme and the PNS Intensifying Support Programme. Some schools have received specific consultancy support for mathematics during the 06-07 school year, and others have not. They also include schools that participated in the JUMP pilot programme with Year 5 children during the 2006 summer term (some of these schools continued to use JUMP materials with these children in Year 6; others did not).

3. The progress that the JUMP children have made has been during the 12-month period from May 2006 to May 2007. The pilot programme ran at the end of Year 5, for six weeks during the summer term, from May 2006. Most ISP and BFA schools started the programme during the autumn term 2006. Other schools started in January 2007. In all schools, teachers were asked to target those children who were NOT expected to achieve Level 4 in the national tests at the end of Y6 (ie children who were Level 3c or below at the end of Y5).

4. School assessment procedures and LA monitoring indicate that whilst a number of pupils made immediate and rapid gains, the more significant progress was seen over the longer term. Children who improved by only a few marks in the tests immediately following the JUMP programme accelerated their progress through the rest of the year to achieve quite extraordinary success. One child assessed at Level 3c at the end of Y5 (in the pilot programme) went on to achieve Level 5 in the national tests. Another child assessed at Level 2a in October 2006 also went on to achieve Level 5 in the national tests.

5. As well as the 151 children who met or exceeded age-related expectations in the national tests, a further 48 children came within 5 marks of doing so. In the tables that follow, it is these children who have been classified as having achieved Level 3a in the national tests. The threshold for Level 4 this year was 46 marks, and 48 of the 227 children at Level 3 scored between 40 and 45 marks. These children were assessed at Level 2a or Level 3c pre-JUMP. If their accelerated progress continues through their transfer to secondary school then they too will meet or exceed age-related expectations at the end of Key Stage 3.

6. Many schools used the materials in other year groups in Key Stage 2. Data-gathering and analysis for the Y6 cohort has understandably been a priority, but performance data for children in Y3-Y5 is also being collected and will be reported in Spring 2008. As these children are still attending Lambeth primary schools, the scope of that report will include more qualitative data (particularly pupil and teacher opinions of the impact of JUMP on children’s perceptions of themselves as mathematicians). Improvements in confidence and attitude of all children participating in the programme are almost universally reported and will be more fully documented in the Spring 2008 report.
Table 1: Statistical summary

<table>
<thead>
<tr>
<th></th>
<th>Number of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y6 cohort in the 29 schools</td>
<td>1262</td>
</tr>
<tr>
<td>Pupils participating in JUMP programme</td>
<td>454</td>
</tr>
<tr>
<td>Pupils achieving L4+</td>
<td>812</td>
</tr>
<tr>
<td>JUMP pupils achieving L4+</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>At start of programme:</td>
<td></td>
</tr>
<tr>
<td>JUMP pupils below L2</td>
<td>9</td>
</tr>
<tr>
<td>JUMP pupils at L2</td>
<td>263</td>
</tr>
<tr>
<td>JUMP pupils at L3c</td>
<td>154</td>
</tr>
<tr>
<td>JUMP pupils at L3b</td>
<td>28</td>
</tr>
<tr>
<td>2007 test results</td>
<td></td>
</tr>
<tr>
<td>JUMP pupils at B</td>
<td>29</td>
</tr>
<tr>
<td>JUMP pupils at N</td>
<td>32</td>
</tr>
<tr>
<td>JUMP pupils at L2</td>
<td>15</td>
</tr>
<tr>
<td>JUMP pupils at L3c &amp; 3b</td>
<td>179</td>
</tr>
<tr>
<td>JUMP pupils at L3a</td>
<td>48</td>
</tr>
<tr>
<td>JUMP pupils at L4</td>
<td>148</td>
</tr>
<tr>
<td>JUMP pupils at L5</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes:

-- Children given ‘B’ in the national tests were deemed to be working below the level of the tests by their schools, and were not entered. These children did not sit the tests.

-- Children given ‘N’ in the national tests were entered for the tests, but their score was too low to be awarded a level.

-- The national tests for KS2 do not differentiate between Levels 3a, 3b and 3c. In the table above, the children who have been identified as achieving Level 3a are those children who scored from 40 to 45 marks overall (the threshold for Level 4 in 2007 was 46 marks).

-- Many of the children who were Level 2 or below pre-JUMP were new arrivals, children in the early stages of learning English, or children who had special educational needs.

Headlines:

-- Children in the JUMP programme formed 18% of the Level 4+ achievement in these schools, and 6% of the Level 4+ achievement across all Lambeth schools.

-- The performance of the JUMP children in the mental mathematics paper was consistently lower than their scores in the written papers might lead one to expect.
Table 2: Performance of JUMP pupils in 2007 national tests

<table>
<thead>
<tr>
<th>Pre-JUMP level</th>
<th>Results of 2007 national tests for Year 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B/N</td>
</tr>
<tr>
<td>&lt;L2 (9)</td>
<td>7</td>
</tr>
<tr>
<td>L2c (11)</td>
<td>5</td>
</tr>
<tr>
<td>L2b (47)</td>
<td>13</td>
</tr>
<tr>
<td>L2a (205)</td>
<td>33</td>
</tr>
<tr>
<td>L3c (154)</td>
<td>3</td>
</tr>
<tr>
<td>L3b (28)</td>
<td>--</td>
</tr>
<tr>
<td>TOTAL (454)</td>
<td>61</td>
</tr>
</tbody>
</table>

Notes:

-- Pre-JUMP levels: Although all schools used standardised QCA optional end-of-year tests to assess their pupils, these were not all for the same year group (the Year 4 test was used for children in the JUMP pilot; school systems and procedures made it impossible to ensure the same test was used for all other schools). This means that for many children their pre-JUMP level was recorded as ‘below Level 2a’, or ‘below Level 3’. For the purposes of this data, all children given ‘below Level 2a’ pre-JUMP have been logged at Level 2b (though some may have been below this level). Similarly, all children given ‘below Level 3’ pre-JUMP have been logged at Level 2a (though many may have been below this level).

Headlines:

-- End-of-year expectations: Children are expected to achieve Level 2b at the end of Year 2, and Level 3b at the end of Year 4. This means that all except 28 of the JUMP children (94%) were at least two years below age-related expectations before the start of the programme, and the 28 children at Level 3b were one year below.

-- One school year later, 33% of the children were at or beyond age-related expectations, and a further 11% had come within 5 marks of doing so. This means that 199 children (44% of the JUMP group) are starting their secondary school careers in a far better position to participate in and enjoy their mathematics lessons, and go on to achieve further success in the subject.

-- Of the 154 children who were at Level 3c pre-JUMP (that is 2 years below age-related expectations), 107 (69%) were at or close to age-related expectations one year later.
Table 3: Progress of JUMP pupils (May 06-May 07) in National Curriculum sub-levels

<table>
<thead>
<tr>
<th>NC sub-levels</th>
<th>&lt;1</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children</td>
<td>121</td>
<td>108</td>
<td>70</td>
<td>106</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>% (of JUMP group)</td>
<td>27%</td>
<td>24%</td>
<td>15%</td>
<td>24%</td>
<td>9%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Notes:

-- Children are expected to make 'two sub-levels of progress' in one school year. If this progress is maintained over time, the expectation is that children will progress from Level 2b+ at the end of Year 2 to Level 3b+ at the end of Year 4 and a secure Level 4+ at the end of Year 6.

Headlines:

-- Half (50%) of the JUMP children made at least 2 sub-levels of progress through the year. This was an acceleration on the progress of earlier years (otherwise they would not have been two or more years below age-related expectations at the end of Year 5).

-- Over a third (35%) of the JUMP children made 3 or more sub-levels of progress, equivalent to 1.5 school years or more.
NEXT STEPS:
Consolidating and extending the gains made

1. **MENTAL MATHEMATICS**

   Analysis of the scores of the JUMP children in the three papers of the KS2 national tests shows that these pupils did significantly less well in the mental mathematics paper than their scores in the two written papers would indicate. This was particularly noticeable in the scores of those children who achieved Level 4+ but was a trend across the board for all JUMP children. There are a number of possible reasons for this, but exploration of the issue with pupils and teachers alike will be a significant aspect of the work on the programme across all participating schools during the 2007-08 school year.

   **Pupil self-confidence:** Bearing in mind the target group, and the fact that these children were operating at two or even three years below age-related expectations, it is only to be expected that their fluency in mathematical operations and their ability to manipulate numbers mentally and at some speed, would lag behind their newly-developed facility with mathematics on paper. If this is the case, it is crucial that teachers use and exploit every opportunity to build their children’s confidence and self-esteem as mathematicians. In his recently published *The End of Ignorance*, John Mighton discusses at length the psychological and emotional barriers to successful learning. The ideas in the book will be an important part of further training for JUMP teachers in Lambeth.

   **Over-reliance on the pupil workbooks:** Schools and teachers have responded enthusiastically to the provision of a possible new avenue of support for their pupils most at risk of failing to meet age-related expectations at the end of Year 6. However, because the pupil workbooks are a central part of the JUMP programme it may well be that insufficient attention has been paid to the development of speed and efficiency in mental calculations, as indicated throughout the teacher manuals. Particularly in those schools that have used the materials with a small group withdrawn from the main class, the mental mathematics warm-up, which is a feature of all good JUMP lessons and entirely consistent with the mental and oral starter of the PNS daily mathematics lesson, may have been missed. A key message for the work in 2007-08 is to ensure that JUMP sessions, whether led by a teacher with the whole class, or by a teacher or teaching assistant with a smaller group, address as a priority the development of mental mathematical fluency including the instant recall of number facts.

2. **CONTINUING SCHOOL PARTICIPATION**

   There is continuing and growing demand for JUMP training and resources from the majority of Lambeth schools that have participated so far. Almost all Lambeth schools which have participated in the JUMP programme are using, or will use, the programme during the 2007-08 school year. One school has said they will not use the programme as they do not believe it was effective for the targeted pupils during 2006-07. Two other schools will not be using the programme because of significant staffing changes.

   In many of the continuing schools, the programme is being used to target children in Y6 who are still below age-related expectations. Some of these children used the programme in Y5, but need to consolidate and extend the gains they made. Teachers testify to the significant improvements in confidence and attitude of these children (this will be explored more fully in the Spring 2008 report).

   A significant number of the continuing schools have moved use of the programme lower down in Key Stage 2, and one is using the Grade 3 materials age-appropriately in Year 3. This has
clear advantages but also raises issues that need to be carefully monitored by both the LA and the schools concerned. The advantage is that the improvements to pupil confidence and attitude take place earlier in the child’s schooling, allowing more time for this confidence to be embedded and extended across all areas of primary mathematics. However, teachers, school leaders and the LA must ensure that the age-related expectations for these year groups are still being met, and that where gaps occur (because of differences between the UK and Canadian systems), these are clearly identified, addressed and filled.

3. CUSTOMISING FOR THE UK CURRICULUM AND LINKING WITH THE NEW PNS FRAMEWORK FOR TEACHING MATHEMATICS

This follows on from the final point in the preceding paragraph. The new electronic PNS Framework for teaching mathematics is a focus for LAs, schools, teachers and the National Strategy team during the current school year. It is important for schools and teachers to be confident that use of the JUMP programme can fit alongside the sometimes complex planning systems that schools are introducing to meet the requirements of the new Framework. Draft cross-referencing materials (linking the JUMP materials to the age-appropriate expectations for each year) have been compiled for dissemination to schools through the autumn term. These materials will be further refined as teachers work with them and develop their familiarity with both the new Framework and the JUMP materials. Ideally, the JUMP principles and methodology (which are entirely consistent with the principles of the mathematics strand of the PNS) will inform all mathematics lessons, whether these are based on the use of the JUMP materials or not.

The JUMP materials obviously draw on the Canadian context for both problem-solving and, more crucially, money. Many Lambeth children, broadly speaking, are not unfamiliar with dollar, dimes and nickels, but at the same time and particularly for those schools using the programme in Years 3 and 4, they need to develop their understanding and competence in the use of the UK currency. Both time and funding are needed to provide a supplement that will ‘translate’ the relevant sections of the Grade 3 and Grade 4 materials to the £.p format; it is not good use of teacher time to expect class teachers to do this individually. However, the good work already done by one enthusiastic and committed teacher last year means that it should now be possible to compile this supplement for dissemination at the start of the new term in January 2008.

There is a wider question as to whether or not a full UK version of the materials is required, drawing on the more familiar UK context for problems and puzzles. So far anecdotal evidence suggests that the ‘foreign’ nature of the materials is attractive to children, and does not present a problem. The wider use of the programme in schools through 2007-08 will indicate whether or not this would be a worthwhile investment of time and effort.

4. QUALITY ASSURANCE AND PROGRAMME FIDELITY

It is vitally important that schools and teachers do not see the JUMP programme and specifically the materials (pupil workbooks and teacher manuals) as a ‘magic bullet’ that will address and solve the problem of pupil underachievement in mathematics in our schools. The programme provides support to teachers in the two areas that historically have been the most challenging: mathematics subject knowledge, and the pedagogy that translates that knowledge into structured experiences for children to develop their mathematical understanding. However, as with any classroom resource, its effectiveness is utterly dependent on the skill and commitment of the practitioner using it. The programme enables teachers to lift the quality of their teaching (and therefore the quality of their pupils’ learning) from satisfactory to good, or from good to outstanding, but it does not, and cannot, do the teaching for the teacher.

Lambeth schools have used the programme in very different ways according to the resourcing, staffing and timetabling flexibility available to them. Each school is individual,
dealing with a unique set of circumstances and pupil needs, and one size simply does not fit all. Work during 2007-08 (supported by all members of the Standards team working with schools) will seek to ensure that the principles of good interactive teaching (central to both JUMP and the mathematics strand of the PNS) are enshrined within all JUMP sessions.

5. DEVELOPMENT OF LEADING TEACHERS

Effective use of the JUMP materials in accordance with the programme’s principles and methodology has the potential to support teachers to raise the quality of their teaching (and therefore children’s learning) from satisfactory to good or from good to outstanding. There is a growing body of anecdotal evidence that this is happening, and documenting this more formally will be an important aspect of work during 2007-08.

The identification of leading teachers, who can demonstrate good or outstanding mathematics lessons using the JUMP programme is already underway, and it is hoped that their names will be added to the Lambeth directory of leading teachers in time for the new term in January 2008. However, an important additional task for these teachers will be to demonstrate the accelerated progress in mathematics of the children in their classes (which is the rationale for the growing use of JUMP in Lambeth). Work is underway to devise a clear, simple and effective way of doing this that will not create an additional administrative burden for already hard-pressed teachers.

6. CATERING FOR THE NEEDS OF VULNERABLE CHILDREN

The work with underperforming pupils in mainstream Lambeth schools, as well as feedback on the continuing work being done by the JUMP organisation in Toronto, indicates that the JUMP programme may well have something to offer our most disaffected children, and those facing the greatest learning challenges. In 2007-08 we will pilot use of the programme in two of our special schools (catering for children with moderate learning difficulties) and in our Pupil Referral Units (for excluded pupils).

7. ‘LAMBETH COUNTS’

The LA has commissioned a programme of activities (‘Lambeth Counts’) for the 2008 calendar year. This programme has the specific aim of raising the profile of mathematics, supporting the development of confidence in the subject, and raising levels of achievement for children at the end of the primary phase, through their secondary schooling and beyond. The main thrust of ‘Lambeth Counts’ is the development of mathematical awareness beyond the classroom by extending and enriching the mathematics curriculum on offer. The use of the JUMP programme will provide an in-class support for mastery of basic rules by all pupils, increasing access to the mathematics extension and enrichment that we hope ‘Lambeth Counts’ will provide.
Appendix 1: ABBREVIATIONS AND ACRONYMS

BfA The Best for All our Children. A creative whole-school improvement programme specific to Lambeth. Initiated in Autumn 2006, the programme draws together the support of a range of professionals (education advisers, teaching and learning consultants, outreach workers, partnership schools) to provide tailored support for a group of 12 schools facing highly challenging circumstances. The programme has benefited from joint funding from Lambeth LA, London Challenge and the Neighbourhood Renewal Fund.

CYPS Children and Young People’s Service. The local government service that now undertakes full responsibility for children, including education and social care. Lambeth Education reorganised (with the relevant sections of Lambeth Social Services) into the Lambeth Children and Young People’s Service in October 2005.

EYFS Early Years and Foundation Stage. Comprises pre-school and nursery or kindergarten, and the first year of compulsory schooling (Reception). Children enter the Reception class during the year of their 5th birthday.

ISP Intensifying Support Programme. A national whole-school improvement programme devised by the Primary National Strategy. Nationally developed materials, systems and other resources are used to support schools that are facing challenging circumstances, and that are at risk of not meeting the floor target (65% of pupils achieving Level 4+ in English and mathematics).

JUMP Junior Undiscovered Mathematics Prodigies. Mathematics programme developed by Canadian author and mathematician John Mighton. Originally devised as a one-to-one programme for under-achieving children, it has evolved into a comprehensive programme appropriate for all children from Grades 3-7 (Years 3-7 in UK), with Grades 1, 2 and 8 just published (Oct 07).

KS1 Key Stage 1. Years 1 and 2. Children complete Year 2 during the year of their 7th birthday. Children are assessed at the end of KS1 and the expectation is that the majority of children will be at Level 2b+ of the national curriculum. Up until 2004 there were national tests for reading, writing and mathematics, and the results of these tests reported nationally and to parents. Since 2005 schools have been asked to supply a level for children based on teacher assessment. Children may be tested (using past test papers) but it is the teacher assessment that is reported. Moderation of KS1 assessment is an important task for schools and LAs during the spring and summer terms.

KS2 Key stage 2. Years 3, 4, 5 and 6, taking children up to the end of the primary phase (at age 11). Children are tested in English, mathematics and science, and the results are reported nationally and to parents. High-stakes league tables (published in December) rank schools and LAs according to the number (percentage) of children achieving the expected levels (Level 4+) in the national tests. The tests are externally set and marked (through the National Assessment Agency).

KS3 Key Stage 3. Years 7, 8 and 9. Year 7 marks the start of secondary schooling. Children are assessed at the end of KS3 and the results are reported nationally and to parents. Hitherto, children have been expected to achieve Level 5+ at the end of KS3, though in 2007 this expectation has been raised to Level 6.

LA Local Authority. The body that is responsible for the provision of children’s services, including education, at the local level.
**LEA**  **Local Education Authority.** Until 2006, education was a distinct area of provision for local councils. Since the 2004 Children’s Act (Every Child Matters), the responsibilities of the LEA have been incorporated into those of the LA, to provide a more wholistic service for children including not only education but also social care.

**NAA**  **National Assessment Agency.** The body that is responsible for setting, marking, and monitoring the national tests for children at the end of Key Stages 1, 2 and 3. The NAA is a subsidiary body of the QCA.

**NLS**  **National Literacy Strategy.** Launched in 1998, this was the government’s key instrument in the drive to raise levels of literacy for children leaving primary school.

**NNS**  **National Numeracy Strategy.** Launched in 1999, this was the government’s key instrument in the drive to raise levels of numeracy for children leaving primary school.

**PNS**  **Primary National Strategy.** Formed in April 2003 from the merging of the National Literacy Strategy (NLS) and National Numeracy Strategy (NNS). The launch and accompanying document ‘Excellence and Enjoyment: learning and teaching in the primary years’ indicated the drawing together of the two main levers of the government’s drive to raise standards in primary education (ie the NNS and NLS), along with a more wholistic approach to the broader primary curriculum.

**QCA**  **Qualifications and Curriculum Authority.** The body responsible for ensuring that examination standards are maintained and that national assessments are fair and effective.