A. Museums and schools

A1. Numbers of contacts with school-aged children in the 69 museums have increased by 40% (47% Phase 1 museums, 29% Phase 2 museums).

A2. There are considerable variations in the uplift achieved by each museum service, but as a whole these are remarkable figures, showing that across England, museums are making successful efforts to increase their value to schools and families.

A3. The vast bulk of school visits are made by primary schools, which represent 81% of the total.

A4. Secondary schools make up about 10% of school visits.

A5. The impressive increase of 40% in relation to pupil contacts includes a disproportionate percentage of schools located in areas with high levels of deprivation, where children may be at risk of social exclusion. Evidence of this capacity of museums, to work with schools where deprivation may be experienced by children, is strong and consistent.

A6. Using the IMD 2004 from the Neighbourhood Renewal Unit, 19% of recorded single visits came from SOAs classified as being amongst the 10% most deprived in England, and 32% of the visits were made by schools located in the 20% most deprived SOAs in England.

A7. An analysis of schools in relation to percentages of pupils entitled to free school meals shows that 38% of schools using the 69 museums in this study are located in the highest quartile, where the 25% of schools in England with the highest levels of free school meal entitlement are to be found. The evidence from both these analyses and the finding from the 2003 study are consistent.

A8. These museums are also working with disproportionately high numbers of special schools, which make up 5% of all schools in England, but 12% of the schools visiting these 69 museums.

A9. The numbers of primary and secondary schools using museums closely match the distribution of primary and secondary schools in England.
Kirrika aged 11 chose to draw a lively illustration of Boudicca (Boadicea) based on a story she had heard during her visit to Colchester Castle

B. Teachers' views about museums:

B1. A total of 1,643 teachers completed Form A (782 teachers Phase 1 museums, 861 teachers Phase 2 museums).

B2. Teachers remain highly enthusiastic about museums, are very satisfied with what they find in museums and very confident about using them in the future.

B3. Teachers are more focused on outcomes than in 2003, and think about learning outcomes differently according to their purposes in using museums.

B4. Teachers at Key Stage 2 and below value museum-based learning outcomes more highly than teachers of older pupils.

B5. Teachers have increased their use of museums for cross-curricular work considerably since 2003, with 27% of teachers working in this way in 2005 compared to 4% in 2003.

B6. 64% of teachers reported using museum on-line resources, and 40% borrowing objects and handling material in addition to visiting museums.
B7. Primary teachers use museums most, but those secondary teachers using museums do so consistently.

B8. Most, but not all, teachers use museums flexibly and imaginatively, taking advantage of government encouragement to promote creativity.

B9. A very large percentage of all teachers use these 69 museums for historical work. Most of the cross-curricular work is History-based.

B10. There are fewer teachers using museums for Art and Design than in 2003, possibly because of the selection of the 69 museums which may not include a large number of art galleries.

B11. Teachers do not always find using museums easy as taking pupils out of school can be problematic, and some elements of museum culture are unwelcoming.

C. Pupils’ views about museums:

C1. Form B, the pupils’ questionnaires, were completed by 26,791 pupils.

C2. Pupils remain extremely enthusiastic and confident about their learning even where their teachers do not think learning has occurred.

C3. Pupils are more enthusiastic where all or most of the critical success factors for successful visits are in place.

C4. Some pupils can obtain higher levels for their assignments following a museum visit.

C5. Ten percent (10%) more older pupils found museums made school work more inspiring than in 2003.

C6. Pupils and teachers value highly the emotional engagement that museums enable – this stimulates the attainment of Knowledge and Understanding and also the development of Attitudes and Values.

C7. Many pupils progressed considerably in their understanding after museum visits because of concrete experiences that make facts ‘real’.

C8. Most pupils are able to personalise their learning through their individual responses to collective group events; this leads to ownership of the experience and, from this, Knowledge and Understanding, Attitudes and Values. Through this ownership, progression occurs.

D. Phase 1 and Phase 2 museums:

D1. Taking the Phase 1 and the Phase 2 museums as a whole, there were very few significant differences between them.
D2. Phase 1 museums in this study consisted of 100% of the three Phase 1 Hub museums.

D3. Phase 2 museums consisted of a sample of 17% of the museums in the six Phase 2 Hubs.

D4. Phase 2 museums were selected because of high levels of educational use.

E. Phase 1 museums:

E1. Secondary schools make up 3% more of the school audience in the Phase 1 museums (12%) than in the Phase 2 museums (9%).

E2. 69% of teachers visiting the Phase 1 museums are using on-line resources compared to 64% of teachers visiting Phase 2 museums.

E3. There are fewer teachers on first time visits than in the Phase 2 museums (40% compared to 49%).

E4. Teachers are less likely to be linking their work at the museum to the curriculum.

E5. Teachers are more likely to value Action, Behaviour, Progression.

F. Phase 2 museums:

F1. Older pupils were more enthusiastic about museums.

F2. Higher proportions of teachers are on their first visit (49% compared to 40%).

F3. Teachers are more likely to be doing curriculum-related work.

G. The Generic Learning Outcomes approach:

G1. The GLOs were used to shape this research study and its analysis.

G2. The GLOs proved effective in encompassing, describing and analysing all dimensions of the evidence of learning generated by the research methods.

G3. While each individual GLO can be identified for the purposes of research and analysis, they are closely interwoven in practice.

G4. Teachers are much more attuned to an outcome-based approach to learning than they were in 2003.
H. How museums contribute to government agendas:

**H1.** Museums promote creativity and this could be further exploited by schools.

**H2.** Museums can help in the development of personalised learning.

**H3.** Museum school services play a powerful role in delivering Every Child Matters.

Sona, aged 9, enjoyed finding out about the kalabal shaker at the Horniman
EXECUTIVE SUMMARY

1. Scope and background to the research

1.1 This report was commissioned from the Research Centre for Museums and Galleries (RCMG) in the Department of Museum Studies at the University of Leicester by MLA. The purpose of the report was to explore the impact of Renaissance funding for museum education, looking specifically at the impact on learning following school visits to museums.

1.2 The Generic Learning Outcome (GLO) approach has been used to measure pupils’ learning following a museum visit.

1.3 This study grows out of and extends an earlier study in 2003 that concentrated on 36 museums in the Phase 1 museum Hubs. This research has revisited the Phase 1 museums, and also encompassed museums in the Phase 2 Hubs.

1.4 This research involved 69 museums in the nine regional Hubs; 1,643 teachers responded to a questionnaire, and a further 31 teachers were interviewed in focus groups and schools; 26,791 pupils completed another questionnaire, 82% of these (21,845) at KS2 or below and 18% (4,946) at KS3 and above, and a further 29 pupils were interviewed in school case-studies. This can be compared with 936 teachers and 20,604 pupils in 2003.

1.5 The sample size for this study is considerably larger than for the 2003 study, but exhibits many of the same characteristics. The findings from the research confirm, reinforce and deepen the findings from the earlier study. Many of the findings are very much the same as in 2003, but in some instances there are small shifts in emphasis. There are very few large changes since 2003.

2. Uplift in numbers using museums

2.1 The numbers of school-aged children using museums has increased by 40% from 2003-2005 overall.

2.2 The Phase 2 museums have increased their contacts with school-aged children by 29% since 2003.

2.3 The Phase 1 museums have increased their contacts with school-aged children by 47% since 2003.
3. Museums are serving schools in deprived areas and high numbers of 
special schools

3.1 The postcode and free school meal data from this study shows that 
museums are working with disproportionately large numbers of schools serving 
children from socially deprived circumstances.

3.2 19% of recorded single visits came from Super Output Areas classified as 
being amongst the 10% most deprived in England.

3.3 32% of the visits were made by schools located in the 20% most deprived 
SOAs in England.

3.4 Special schools figure much more highly in the museum sample (at 12%) 
than they do in the national figures (5%), reflecting a very high level of use by 
schools in this category.

4 Teachers’ use of museums

4.1 43% of all teachers were on their first visit to the museum, with a higher 
proportion on their first visit in the Phase 2 museums (49%) compared to the 
Phase 1 museums (40%).

4.2 During the last two years:

- 86% of teachers in this study visited a museum
- 64% used on-line resources
- 40% borrowed an object or handling box

5. Using the museum for curriculum-related work

5.1 90% of teachers agreed that the work at the museum today was linked to 
the curriculum, compared with 94% in 2003, with 3% more teachers working in 
this way in the Phase 1 museums than in the Phase 2 museums.

5.2 More primary teachers linked their visit directly to the curriculum, 94% 
compared to 87% of secondary teachers.

5.3 27% of teachers were working in an interdisciplinary manner. 51% of 
teachers are working on History-related themes; this compares with 70% in 
2003.

5.4 11% percent of the teachers were working on Art and Design, compared 
with 15% in 2003 (and this may be related to the change in the museums 
surveyed).
6. The value of the five Generic Learning Outcomes to teachers

6.1 The percentages of teachers saying that the learning outcomes that could result from using museums were ‘important’ or ‘very important’ are very high:

- Increase or change in Knowledge and Understanding 95%
- Enjoyment, Inspiration, Creativity 94%
- Change or development in Attitudes and Values 92%
- Increase in Skills 89%
- Action, Behaviour, Progression 81%

6.2 Compared with 2003, teachers rate Attitudes and Values slightly more important (by 4%) than in 2003, and Enjoyment, Inspiration, Creativity slightly less important (by 3%).

6.3 Primary teachers were much more likely to rate the GLOs highly than secondary teachers.

6.4 Teachers using museums for curriculum-related purposes are much more likely to say that museums are very important to their teaching.

6.5 Two key elements in the value of museums to teaching are that museums provide something that the classroom can not, and that the quality of the provision is reliably and consistently high.

7. The achievement of specific learning outcomes

7.1 Teachers think that museums can be a very powerful teaching tool for all pupils regardless of socio-cultural or ability background.

- 99% of teachers thought it ‘likely’ or ‘very likely’ that their pupils would have enjoyed the museum visit, with 88% ticking ‘very likely’
- 95% thought new interests would be aroused and pupils would be inspired to learn more
- 93% thought pupils would be excited by new ways to learn
- 88% of teachers expected to be exploring new ideas with their pupils as an outcome of the museum visit.

7.2 Teachers are explicit about the causal link between enjoyment and learning:

- ‘Enjoyment opens children up to learning’
- ‘Enjoyment leads to a heightened sense of awareness’

7.3 Knowledge and Understanding remain of key importance to teachers:

- 95% of teachers think it is ‘likely’ or ‘very likely’ that their pupils would have gained in subject-specific facts
• 92% think pupils will feel more positive about learning as an outcome of their museum visit
• 94% of teachers thought pupils would increase in subject-related understanding.

7.4 Teachers understand progression as something that would happen in the middle to long term, and some are more uncertain about what could be identified in the short-term, immediately following a museum visit. Even so:

• 78% of teachers think it ‘likely’ or ‘very likely’ they will be undertaking new activities with their pupils following the museum visit
• 78% of teachers think it ‘likely’ or ‘very likely’ their pupils will be using new skills
• 68% of teachers think it ‘likely’ or ‘very likely’ their pupils will work with their peers in new ways
• 61% of teachers think it ‘likely’ or ‘very likely’ they will be working in other new ways in the classroom.

7.5 In relation to Skills:

• 92% of teachers anticipating an increase in thinking skills
• 87% of teachers expected an improvement in communication skills
• 86% expecting an improvement in social skills.

8. Teachers’ attitudes and purposes

8.1 In considering how teachers value museums and the learning that may result from their use, it is vital to differentiate between primary and secondary teachers, and between the purposes for which those teachers are using museums.

8.2 Teachers in 2005 appeared more reflective about the types of learning their pupils experienced during a museum visit, and were able to analyse and examine this more effectively than during the 2003.

8.3 Some teachers were more focused on the impact of the museum on their students in relation to issues around ethnicity, socio-economic deprivation, cultural entitlement, aspiration, class mobility and inclusion than in 2003.

8.4 It is likely that government policies and strategies, especially the focus on outcomes and the drive to inclusiveness, may have influenced the ways teachers think about and use museums.
9. Teachers are satisfied and confident in using museums, but face substantial difficulties in making visits

9.1 Very large percentages of teachers (74%) across all museums are ‘very satisfied’ and a further 22% are ‘satisfied’ with their museum experiences.
- 96% of teachers are satisfied or very satisfied
- 90% of teachers agreed that their confidence in using museums had increased

9.2 Some important issues were raised about the difficulties teachers face in visiting museums with their classes. These include issues that museums can address, including those to do with visit administration and museum facilities for schools, and those that museums can do little about, such as school-based administration, high costs of transport, attitudes of the general public to pupils and problems of cover when teachers are out of school.

10. The importance of museums to teachers

10.1 The importance of museums to teachers seems to have changed a little since 2003.
- 95% of teachers stated that museums were ‘important’ (49%) or ‘very important’ (46%) for their teaching, which was much the same as in 2003
- But the percentage stating ‘very important’ has fallen from 58% to 46%

10.2 This is a puzzling finding, which is contradicted by all the other evidence in the research study. Probing for possible reasons for this, it was found that whether or not the work at the museum was linked to the curriculum was a major factor.
- 48% of teachers whose work was linked to the curriculum rated museums ‘very important’ for their teaching, compared with 33% of those whose work was not so linked.

10.3 As the percentage of teachers using museums for curriculum-related work has dropped since 2003, this may account for an apparent drop in the importance of museums in teachers’ eyes.

11. Pupils’ views of their own learning

11.1 Pupils are, as in 2003, both very enthusiastic about their museum experiences, and confident about their own learning.

11.2 Bearing in mind that approximately one third of the schools in which these pupils are based are located in areas of considerable deprivation, and 12% of the schools are special schools, the positive response from pupils is extremely impressive. This is strong evidence that museums have the
potential to be effective in working towards social inclusion and in working with children at risk.

11.3 At KS2 and below:

- 93% enjoyed today’s visit
- 90% learnt some interesting new things
- 80% could understand what they did
- 86% thought museums were exciting places.

11.4 At KS3 and above:

- 86% enjoyed today’s visit
- 85% discovered some interesting things
- 83% thought museums were good places to learn in a different way to school
- 71% said the visit had given them a better understanding of the subject
- 68% said the museum/gallery visit makes school work more inspiring

11.5 The pupils’ responses were very much the same as in 2003, except for two significant differences; older pupils seem to be much more enthusiastic about the inspirational impact of museums (up from 58% to 69%) and also about potential for skills learning (up from 62% to 68%).

12. The impact of Renaissance funding in regional museums

12.1 Renaissance has had a very strong impact on museums and education.

12.2 Staff numbers have increased by almost 50% (46%) in the last two years (2003-2005).

12.3 Contacts between museums and school-aged children has increased by 40%.

12.4 Museums and schools are developing more integrated ways of working together, and teachers now have a much better understanding of what museums can offer.

12.5 Support for teachers has improved through museum education websites, advisory services for teachers, and a greater awareness on the part of museum staff of teaching and learning.
13. Museums and government agendas

13.1 Museums promote creativity and this could be further exploited

13.1.1 Museums are already seen by teachers and by pupils, as places where creativity can flourish, where new ideas are generated and where experiences can be inspirational. This could be built upon.

13.1.2 Some of the most creative work is interdisciplinary. The use of museums for cross-curricular work has increased tremendously since 2003 but this is mainly by primary teachers on historical themes. Museums have a much wider cross-curricular potential than this. Museums displays are thematic and cross-curricular and objects are inherently interdisciplinary.

13.1.3 Museums can enable teachers to broaden their range of teaching styles and develop further their disposition and pedagogy for creativity.

13.1.4 This study shows how, using museum displays and collections, children can make connections and see relationships, reflect critically, and understand how their ideas and feelings have changed during the museum visit.

13.2 How museums can help in the development of personalised learning

13.2.1 One of the key findings of this research study is the very high level of enjoyment and inspiration that pupils of all ages experience in museums:

- 68% of pupils at KS3 and above find museums inspiring (an increase of 10% in two years)
- 86% of pupils at KS2 and below thought museums were exciting places.

13.2.2 The most important outcome for teachers, and the one they most expect to find in their pupils, is enjoyment:

- 99% of teachers thought their pupils would have enjoyed the museum visit
- 95% teachers thought new interests would be aroused
- 95% thought their pupils would be inspired to learn more.

13.2.3 Enjoyment and enthusiasm stems from being able to make an individual emotional investment in a museum experience which results in a personalised response to a collective event.

13.2.4 Personalised responses arise from:

- Active making of meaning and taking ownership of learning
- The use of prior knowledge to make events meaningful and significant in an individual way
- Making links with family circumstances or histories
- Use of preferred learning styles
• Aesthetic responses to specific objects or buildings
• The building of confidence in individual capacity to understand and perform
• Stronger relationships between individual pupils and their peers as the result of shared experience.

‘Being in the conditions that there were at that time, you actually felt emotions that they would be feeling at the time and it’s easier to understand how things were if you’re actually doing it and seeing...’

What amazed me most on my visit was...

I thought the most amazing thing was when I saw the house. The house was beautiful, I was amazed.

I thought the flowers was nice and they amazed me too.

A KS2 pupil is impressed by a visit to Blakesley Hall, a 16th century timber-framed house and part of Birmingham Museums and Art Gallery
Will aged 13 became more aware of and sympathetic to his environment after a visit to Roots of Norfolk at Gressenhall.

13.3 The contribution of museums to Every Child Matters

13.3.1 Every Child Matters is working towards ensuring that every child has the chance to fulfil their educational potential, through encouraging high educational standards and a wider concept of well-being. What did you learn at the museum today? Second study 2005 provides strong evidence of how museums are able to contribute to enabling all children to succeed.

13.3.2 Museums provide high quality, creative and cultural learning opportunities. The tangibility of the experience and the opportunity to access information and feelings through the senses, combined with the possibility of individual emotional engagement, makes the museum a powerful teaching tool.

13.3.3 Every Child Matters understands that organisations must broaden opportunities for all children to reach their individual potential. Museums can be very effective at this, particularly with older pupils who are often surprised to find how inspiring museums can be.

Stacey, aged 15, wrote after a visit to Manchester Art Gallery:
‘[The most interesting thing about today was...] Taking photographs and making pictures from tape, it was using a new method to express creativity. The whole trip was inspirational.’

13.3.4 The use of objects and of learning in a rich and tangible environment, while providing enjoyable, effective, and stimulating pathways to learning for all children, has long been acknowledged as especially valuable for pupils with special needs and for those who find learning difficult.

13.3.5 Museums have a strong contribution to make in relation to learning in Special schools, which are very much over-represented as museum users in relation to their distribution in England. Where special schools make up 5% of all schools in England, they made up 12% of the schools using the 69 museums in September and October 2005.

13.3.6 Museum school services are significant players in working towards social inclusion. Of school visits to these museums, 32% are located in the 20% most deprived areas (SOAs) in England.

13.3.7 Considering the actual schools visiting museums in relation to the percentages of pupils eligible for free school meals, these museums are working across schools with pupils from all social backgrounds, but 38% of these visits are made by schools where more than 25% of the pupils are eligible for free school meals.

13.3.8 Museums are already making a strong contribution to inclusiveness in educational provision. With the new emphasis on education outside the classroom, this contribution can be extended.

14. Final conclusions

14.1 Museums are providing increased services that are highly valued by teachers, and are contributing powerfully to government agendas.

14.2 Renaissance funding has enabled increased provision for schools which on the whole remains of high quality. Contact numbers with school-aged children have increased by 40% in two years. Although museums are used by schools across the social spectrum, disproportionately large numbers of pupils at risk of deprivation and with special educational needs are being reached by museums. Teachers from all types of school are convinced of the value of museums for their pupils’ learning. Satisfaction levels of teachers remain very high, though it is not always easy for them to take pupils out of school and in some cases more could be done by museums to help. Pupils are very enthusiastic and more could be done by teachers to follow up on museum-based learning.

14.3 This research shows clearly the enormous potential of museums to successfully generate the full range of learning outcomes; however, there is still a great deal more that could be done by museums, given the resources.
Iqra aged 8 was impressed by the fact that the museum existed in order to keep ‘things safe’ so that people like her could visit and look at them. She also drew a careful picture of two coins she saw during her visit to the Museum of London.