

**Mapped Out
Free Maps for 11-Year-Olds**

Overview of findings, 2000-2006

Presented to:
Ordnance Survey

May 2006

Dr John Horton
Sarah Cate Armstrong
Karen Hedges
Dr Peter Kraftl
Claire Marshall
Professor Hugh Matthews
Professor Andrew Pilkington

Centre for Children and Youth

School of Social Sciences
The University of Northampton
Park Campus
Northampton NN2 7AL

Tel: 01604 892514
Fax: 01604 791114
Email: ccy@northampton.ac.uk

Mapped Out: Free Maps for 11-Year-Olds

Overview of findings, 2000-2006

Presented to:

Ordnance Survey
May 2006

1 INTRODUCTION

- 1.1 In March 2002, Ordnance Survey launched the *Free Maps for 11-year-olds* scheme. Through this ongoing, annual scheme, all Year 7 school pupils (11-12 years old) in the UK are offered a free Ordnance Survey 1:25,000 *Explorer* map. Additionally, the scheme provides free maps to teachers in participating schools, at a ratio of one map per 25 participating pupils. As such, the scheme represents a major, unprecedented giveaway of mapping resources. To date (May 2006), over 3 million maps, with a retail value of over £20million¹, have been distributed – with no ‘strings’, costs or obligations attached – to pupils and teachers in over 7000 schools across the UK, via the scheme.
- 1.2 Since October 2000, the Centre for Children and Youth (CCY) – an internationally recognised research centre based at The University of Northampton² – has worked on behalf of Ordnance Survey to gather empirical and evaluative data, to inform the initial and ongoing development of the *Free Maps for 11-year-olds* scheme. To date, CCY has conducted 27 investigations into the conduct, impact, successes and limitations of the scheme (see Table 2.1). Through this ongoing work, a unique and significant body of data about the scheme – and, therefore, about mapwork in British Schools, and attitudes of young people, teachers and parents/carers towards maps, over the last half-decade – has been gathered.
- 1.3 Findings from CCY’s research for Ordnance Survey have previously been written-up in 17 reports, published between 2000-2006 (see Table 1.1, overleaf).

¹ Figures from Lawrence, V. (2004) Mapping Out the Future, *Teaching Geography* October, 2004, pp.116-119.

² Formerly University College Northampton.

Table 1.1 Centre for Children and Youth reports published on behalf of Ordnance Survey, 2000-2006

| DATE OF PUBLICATION | REPORTS PUBLISHED |
|---------------------|--|
| 2000 | <i>Children's Mapping Skills: First report</i> |
| 2001 | <i>Children, Schools and Maps</i> |
| 2002 | <i>Mapped Out - Free Maps for 11 Year Olds Survey 1: One Year On</i> <i>Mapped Out - Free Maps for 11 Year Olds Survey 2: National Survey of Children and Parents/Guardians, 2002</i> <i>Mapped Out - Free Maps for 11 Year Olds Survey 3: National Survey of Teachers, 2002</i> <i>Mapped Out - Free Maps for 11 Year Olds Survey 4: Focus Groups with Children</i> |
| 2003 | <i>Free maps for 11-Year Olds Survey 1: two years on</i> |
| 2004 | <i>Free maps for 11-Year Olds Survey 2: Teacher E-Survey, 2004</i> <i>Free maps for 11-Year Olds Survey 3: National Pupil Survey, 2004</i> |
| 2005 | <i>Mapped Out - Free Maps for 11 Year Olds National Teacher E-survey, 2005</i> <i>Mapped Out - Free Maps for 11 Year Olds Pilot schools: Year 7 Pupil and Teacher Surveys</i> <i>Mapped Out - Free Maps for 11 Year Olds Scottish Teacher E-Survey, 2005</i> <i>Mapped Out - Free Maps for 11 Year Olds National Teacher Interview Survey, 2005</i> <i>Mapped Out - Free Maps for 11 Year Olds Pilot schools: Year 10 pupil survey</i> |
| 2006 | <i>Free Maps for 11 Year Olds Questionnaire Survey of Pupils in Pilot Schools, 2006</i> <i>Free Maps for 11 Year Olds National Questionnaire Survey of Geography Teachers in Participating Schools, 2006</i> <i>Free Maps for 11 Year Olds National Interview Survey of Geography Teachers in Participating Schools, 2006</i> <i>Free Maps for 11 Year Olds E-Survey of Geography Teachers in Non- Participating Schools, 2006</i> |

1.4 This report provides a reflective overview of CCY's research for Ordnance Survey, 2000-2006. This report has three aims:

- to collate key findings from the 17 previous CCY reports (most of which are now unavailable in hard copy);
- to present hitherto unpublished data from CCY research into the *Free Maps for 11-year-olds* scheme;
- to present a longitudinal analysis of findings relating to the *Free Maps for 11-year-olds* scheme.

1.5 This report is structured as follows.

1. Introduction.
2. Research conducted by CCY on behalf of Ordnance Survey, 2000-2006.
3. Findings from a longitudinal study of the *Free Maps for 11-year-olds* scheme in six pilot schools, 2000-2006:
 - baseline data;
 - pupils;
 - teachers;
 - parents/carers.
4. Findings from national surveys of participants in the *Free Maps for 11-year-olds* scheme, 2001-2006:
 - pupils;
 - teachers;
 - parents/carers.
5. Summary.

2 RESEARCH CONDUCTED BY CCY ON BEHALF OF ORDNANCE SURVEY, 2000-2006

2.1 The 27 surveys conducted by CCY on behalf of Ordnance Survey in 2000-2006 are itemised in Table 2.1. The research methods employed in these surveys are described in sections 2.2 and 2.3.

Table 2.1 Surveys conducted by Centre for Children and Youth on behalf of Ordnance Survey, 2000-2006

| NATURE OF SURVEY | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------------------|------|------|------|------|------|------|------|
| Research in 6 pilot schools | | | | | | | |
| Pilot cohort questionnaire | | * * | * | * | | * | * |
| Pilot cohort focus groups | | | * | | | * | |
| Teacher questionnaire | | * * | * | | | | |
| Teacher focus groups | | | | | | * | |
| Parent questionnaire | | * | * | | | | |
| | | | | | | | |
| National surveys | | | | | | | |
| Mapping skills exercises | * | | | | | | |
| Year 7 survey | | | | * | * | | |
| Teacher questionnaire | * | | * | | * | * * | ** |
| Teacher interviews | | | | | | * | * |
| Parent survey | | | | * | | | |

2.2 Research in six pilot schools

In 2001, prior to the launch of the *Free Maps for 11-year-olds* scheme, the scheme was piloted in six secondary schools. These schools were selected to represent a range of different social and geographical indicators and school types (Table 2.2). In these schools, free maps were distributed to all pupils in Year 7 at the time. CCY conducted research with this cohort just prior to receipt of maps, and has returned to carry out follow-up research in each subsequent academic year, to investigate the ongoing progress and outcomes of the *Free Maps for 11-year-olds* scheme in practice. Research conducted with this cohort group, and their teachers and parents, has been as follows.

Table 2.2 The six pilot schools for the *Free Maps for 11-year-olds* scheme

| SCHOOL | NATURE OF CATCHMENT |
|--|--|
| Crown Hills Community College, Leicester – community comprehensive | Inner urban, high ethnic composition |
| North Leamington School, Leamington Spa – arts college and community comprehensive | Suburban, mixed social catchment |
| William Parker School, Daventry – community comprehensive | Small market town, large rural catchment |
| Rugby School, Rugby – independent | National, prosperous social catchment |
| Lenzie Academy, Glasgow – comprehensive | Suburban, middle class catchment |
| Morrison School, Swansea Valley – community comprehensive | Urban, working class catchment |

2.2.1 Questionnaire survey with pilot cohort of school pupils

Prior to receiving their free map (Sept. 2001), and at regular, roughly annual, intervals ever since (October 2001; September 2002; September 2003; March 2005; April 2006), the pilot cohort of school pupils completed a questionnaire in class. Topics covered in this annual survey are listed in Table 2.3. The number of questionnaires completed at each stage is shown in Table 2.4.

Table 2.3 Topics covered in annual questionnaire survey of pupils from pilot cohort, 2001-2006

- Do you know what Ordnance Survey is/does?
- How many times have you looked at your free map in the last year?
- In what ways have you used your free map in school?
- In what ways have you used your free map outside school?
- Who else had looked at your free map?
- How well do you feel you understand maps?
- How important is it to be able to use maps?
- How much do you enjoy using maps?
- Have you, or your family, purchased a map in the last year?

Table 2.4 Number of questionnaires completed by pupils from pilot cohort³, 2001-2006

| SCHOOL | SEPT. 2001 | OCT. 2001 | SEPT. 2002 | SEPT. 2003 | MAR. 2005 | APR. 2006 |
|-------------------------|---------------|--------------|---------------|---------------|--------------|--------------|
| Crown Hills College | 227 | 221 | 219 | 197 | 117 | 172 |
| North Leamington School | 159 | 185 | 179 | 221 | 133 | 135 |
| William Parker School | 231 | 222 | 145 | 201 | 108 | 150 |
| Rugby School | 15 | 16 | 16 | N/A | N/A | N/A |
| Lenzie Academy | 237 | 234 | 197 | 186 | N/A | N/A |
| Morrison School | 206 | 191 | 170 | N/A | 122 | 72 |
| | | | | | | |
| Total | 1075 | 1069 | 926 | 805 | 480 | 529 |

2.2.2 Focus groups with pilot cohort of school pupils

In September 2002 (one year after receiving their free map) and March. 2005 (almost four years after receiving their map) focus groups were carried out with a sample of 6-12 pupils (with equal numbers of males and females) from the pilot cohort of pupils, in each of the six pilot schools. Topics covered in these focus groups are listed in Table 2.5. Each focus group lasted for around 50 minutes, and was recorded for later transcription. Participants were informed of the nature of the exercise at all times, and it was emphasised that all results would be anonymised and that confidentiality was assured.

³ Differences in numbers of questionnaires between surveys are accounted for by absences from school, pupil leavers, and, in some schools, difficulty in administering the questionnaire to all children because of curricula requirements. The sample size of the two latter surveys is much reduced because of the number of pupils opting out of Geography.

Table 2.5 Topics covered in focus groups with pupils from pilot cohort, 2002-2005

- What do you understand by 'Ordnance Survey'?
- What was your reaction to getting a free map?
- Where is your free map now?
- Can you give some examples of:
 - how the map has been useful in school?
 - how the map has been useful outside school?
 - benefits of owning a map?
- How well do you feel you understand maps?
- How important is it to be able to use maps?
- How much do you enjoy using maps?
- Have you, or your family, purchased a map in the last year?

2.2.3 Questionnaire survey of geography teachers in pilot schools

In September 2001 (just before distribution of free maps), October 2001 (just after distribution of maps) and September 2002, geography teachers at the pilot schools completed a questionnaire. Topics covered in these surveys are listed in Table 2.6. The number of questionnaires completed in these surveys is shown in Table 2.7. In addition, prior the distribution of free maps, teachers at each school were asked to provide an inventory of cartographic resources used in the teaching of Year 7 pupils.

Table 2.6 Topics covered in questionnaire survey of geography teachers in pilot schools, 2001-2002

- How have you made use of the free maps in school?
- Has the *Free Maps* scheme made it possible to use maps in new ways for teaching?
- Do you use maps more often in class since the start of the *Free Maps* scheme?
- Has the *Free Maps* scheme made a difference to pupils' understanding of maps?
- Has the *Free Maps* scheme made a difference to pupils' enjoyment of maps?
- Has your school purchased new maps since the start of the *Free Maps* scheme?

Table 2.7 Number of questionnaires completed by geography teachers from pilot schools, 2001-2002

| SCHOOL | SEPT. 2001 | OCT. 2001 | SEPT. 2002 |
|-------------------------|------------|-----------|------------|
| Crown Hills College | 10 | 9 | 9 |
| North Leamington School | 6 | 2 | 5 |
| William Parker School | 5 | 4 | 4 |
| Rugby School | 5 | 1 | 4 |
| Lenzie Academy | 3 | 4 | NA |
| Morrison School | 4 | 6 | 3 |
| | | | |
| Total | 33 | 26 | 25 |

2.2.4 In-depth interviews with geography teachers in pilot schools

In March 2005, in-depth interviews were conducted with the geography teachers most closely involved in administering the *Free Maps* scheme in each of the pilot schools. Topics covered in these interviews are listed in Table 2.8. Most of the questions were of an "open" type, in order to ensure that teachers used their own words and descriptors to articulate their views and attitudes towards the scheme. Each focus group lasted for around 50 minutes, and was recorded for later transcription.

Table 2.8 Topics covered in in-depth interviews with geography teachers in pilot schools, 2001-2002

- Has it been straightforward to participate in the *Free Maps* scheme?
- How have the free maps been used in:
 - classroom-based work?
 - homework activities?
 - fieldwork?
 - project work?
 - lessons other than geography?
 - extracurricular activities?
- Has the *Free Maps* scheme made a difference to pupils' understanding of maps?
- Has the *Free Maps* scheme made a difference to pupils' enjoyment of maps?
- Has the *Free Maps* scheme made a difference to pupils' interest in maps?
- How has the *Free Maps* scheme impacted upon the teaching/learning of geography in your school?
- Has your school purchased new maps since the start of the *Free Maps* scheme?
- How could the *Free Maps* scheme be improved?

2.2.5 Questionnaire survey of parents/carers of pupils from pilot cohort

In October 2001 and September 2002, questionnaires were sent to the parents/carers of every pupil in the pilot cohort in the six pilot schools. Topics covered in these surveys are listed in Table 2.9. The number of questionnaires returned in each case is shown in Table 2.10.

Table 2.9 Topics covered in questionnaire survey of parents/carers of pupils from pilot cohort, 2001-2002

- Do you know what Ordnance Survey is/does?
- Are you aware of the Free Maps scheme?
- How many times have you looked at your child's map
- How have you used your child's free map?
- How many Ordnance Survey maps have you purchased in the last 12 months?
- Are you likely to buy an Ordnance Survey map in the future?

Table 2.10 Number of questionnaires completed by parents/carers of pupils from pilot cohort, 2001-2002

| SCHOOL | OCT. 2001 | SEPT. 2002 |
|-------------------------|--------------|---------------|
| Crown Hills College | 132 | 111 |
| North Leamington School | 118 | 52 |
| William Parker School | 141 | 59 |
| Rugby School | 9 | 11 |
| Lenzie Academy | 109 | 80 |
| Morrison School | 57 | 55 |
| | | |
| Total | 566 | 368 |

2.3 National surveys

Since the national launch of the *Free Maps for 11-year-olds* scheme in 2002, CCY has conducted a series of extensive national surveys, to evaluate the progress, success and limitations of the scheme, across the UK. These surveys continue to provide a wider, national-level context to CCY's in-depth research in the six pilot schools. National surveys conducted by CCY on behalf of Ordnance Survey have been as follows.

2.3.1 Mapping skills exercises

In 2000, CCY conducted a survey of the mapping skills of children and young people, of different ages, in a range of locales in the UK. Participants were asked to complete two short exercises in class.

- *Free recall mapping* – Participants were asked to draw a freehand sketch map of their home area and journey to school on a plain sheet of A3 paper.
- *Map interpretation* – Participants were asked to draw their home area and journey to school on a sheet of tracing paper overlain on a large scale plan (1: 2500 for primary school pupils; 1: 6000 for secondary school pupils) of their neighbourhood.

Each map was evaluated and 'graded' using ten measures⁴ (Table 2.11). These grade scores thereby constituted a multivariate quantitative indicator of each individual's mapping skills, which could be analysed (to compare, for example, the different mapping skills of children of different ages, genders, and different catchments areas). The number and location of participants in these mapping skills exercises is shown in Tables 2.12 and 2.13.

⁴ The ten measures were derived from contemporary leading edge work in Environmental Psychology and Human Geography. For a more detailed introduction, see: Matthews, H. (1992) *Making Sense of Place: children's understanding of large-scale environments* (Harvester Wheatsheaf: Hemel Hempstead).

Table 2.10 Analytical frame used to 'grade' maps produced in mapping skills exercises

| MEASURE | 'GRADE' AWARDED | | | | |
|--------------------------|--|------------------------------|---|-------------------------------|--|
| | 5 (Highest) | 4 | 3 | 2 | 1 (Lowest) |
| Cartographic competence | Produces plan-verbal map | Produces plan map | Produces pictorial-plan or pictorial-plan-verbal map | Produces pictorial-verbal map | Produces pictorial map |
| Mapping style | Areal-Line-point | Areal | Line | Line/Point | Point |
| Accuracy of scale | Most features represented in proportion and to scale | | Some features represented to scale, but some key errors | | Little attempt to represent proportion/perspective/scale |
| Accuracy of orientation | Relative position of features is mostly correct, as is sense of direction (N, S, E, W) | | Some features correct oriented, but some key errors | | Little attempt to represent correct relative position of features. |
| Labelling | Many accurate labels | Many labels; some inaccuracy | Moderate labeling; some inaccuracy | Few labels; some inaccuracy | Very few labels |
| Content | Count of total number of features represented on map | | | | |
| Functionality | Count of number of aspects of the built environment represented on map (including footpaths, roads, gardens, zebra crossings, car parks, phone box, post box, sheds, houses) | | | | |
| Composition of paths | Count of number of continuous lines drawn between two or more points without break represented on map | | | | |
| Composition of nodes | Count of number of intersections of two or more paths represented on map | | | | |
| Composition of landmarks | Count of number of buildings or other point features of significance represented on map | | | | |

Table 2.11 Age and location of participants in free recall mapping exercise, 2000

| TYPE OF SCHOOL | AGE OF PARTICIPANTS | | | | | | | | | |
|-----------------------------|---------------------|----|----|----|----|----|----|----|----|--|
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| Rural primary | 5 | 4 | 6 | 6 | 5 | - | - | - | - | |
| Rural primary | 9 | 4 | 6 | 5 | 12 | 8 | - | - | - | |
| Rural primary | 2 | 6 | 4 | 3 | 3 | 7 | - | - | - | |
| Suburban primary | - | - | - | - | 18 | 15 | - | - | - | |
| Suburban primary | 17 | 12 | 28 | 8 | - | - | - | - | - | |
| Urban primary | 17 | 7 | 13 | 14 | - | - | - | - | - | |
| Urban primary | - | - | - | - | 15 | 15 | - | - | - | |
| Secondary - mixed catchment | - | - | - | - | - | 21 | 3 | 23 | 5 | |
| | | | | | | | | | | |
| Total | 50 | 33 | 57 | 36 | 53 | 66 | 3 | 23 | 5 | |

Table 2.11 Age and location of participants in map interpretation exercise, 2000

| TYPE OF SCHOOL | AGE OF PARTICIPANTS | | | | | | | | |
|-----------------------------|---------------------|----|----|----|----|----|----|----|----|
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Rural primary | 4 | 5 | 2 | 7 | 7 | 1 | - | - | - |
| Rural primary | 6 | 4 | 6 | 7 | 2 | 4 | - | - | - |
| Rural primary | 4 | 2 | 4 | 2 | 6 | 4 | - | - | - |
| Suburban primary | - | - | - | - | 19 | 12 | - | - | - |
| Suburban primary | 14 | 15 | 15 | 10 | - | - | - | - | - |
| Urban primary | 10 | 17 | 18 | 10 | - | - | - | - | - |
| Urban primary | - | - | - | - | 14 | 14 | - | - | - |
| Secondary - mixed catchment | - | - | - | - | - | 21 | 3 | 22 | 5 |
| Total | 38 | 43 | 45 | 36 | 48 | 56 | 3 | 22 | 5 |

2.3.2 Questionnaire survey of Year 7 pupils

In 2003 and 2004, a sample of around 500 pupils in Year 7, in a sample of schools across the UK, were invited to complete a questionnaire in class, within four months of receiving their free Ordnance Survey map. Topics covered in the questionnaire surveys are listed in Table 2.12. The sample of schools participating in these surveys is shown in Table 2.13. These schools were selected, from Ordnance Survey's database of schools participating in the *Free Maps* scheme, to represent a mix of types, catchment and region. The number of questionnaires completed is shown in Table 2.14.

Table 2.12 Topics covered in national questionnaire survey of Year 7 pupils, 2003-2004

- Do you know what Ordnance Survey is/does?
- How many times have you looked at your free map?
- In what ways have you used your free map in school?
- In what ways have you used your free map outside school?
- Who else had looked at your free map?
- How well do you feel you understand maps?
- How important is it to be able to use maps?
- How much do you enjoy using maps?
- Have you, or your family, purchased a map in the last year?

Table 2.13 Sample of schools participating in survey of Year 7 pupils, 2003-2004

| SCHOOL | NATURE OF CATCHMENT | REGION |
|--|--|---------------|
| Cranford Community College, Hounslow - community comprehensive | Inner urban, high minority ethnic population | South East |
| Croftfoot Primary School, Glasgow - upper primary | Suburban, mixed social catchment | Scotland |
| Duffryn High School, Newport - community comprehensive | Inner urban, predominantly white working class catchment | Wales |
| Exmouth Community College - community comprehensive | Small town, mixed social catchment | South West |
| Kineton High School - community comprehensive | Small market town, mixed rural catchment | West Midlands |
| Manor School, Northamptonshire - foundation comprehensive | Rural, mixed social catchment | East Midlands |
| St Margaret's Primary School, Edinburgh - primary | Suburban, mixed social catchment | Scotland |
| Willows High School, Cardiff - community comprehensive | Inner urban, predominantly white working class catchment | Wales |
| Fulhurst Community College - community comprehensive | Inner urban, high ethnic minority composition | South West |
| Oundle School - public, independent | Rural, prosperous national catchment | East Midlands |
| St Margaret's Primary School, Edinburgh - primary | Suburban, mixed social catchment | Scotland |
| Willows High School, Cardiff - community comprehensive | Inner urban, predominantly white working class catchment | Wales |
| Fulhurst Community College - community comprehensive | Inner urban, high ethnic minority composition | South West |

Table 2.14 Number of questionnaires completed by Year 7 pupils, 2003-2004

| SCHOOL | 2003 SURVEY | 2004 SURVEY |
|----------------|-------------|-------------|
| Cranford | 79 | - |
| Croftfoot | 59 | - |
| Duffryn | 119 | - |
| Exmouth | 253 | - |
| Kineton | 165 | - |
| Oundle | 46 | - |
| Manor | - | 94 |
| St. Margaret's | - | 41 |
| Willows | - | 168 |
| Fulhurst | - | 141 |
| | | |
| Total | 721 | 444 |

2.3.3 Questionnaire survey of geography teachers

Every academic year since the launch of the *Free Maps* scheme, a questionnaire survey has been distributed, via email, to the geography teachers responsible for administering the scheme in 6000+ schools across the UK. Topics covered in these surveys are listed in Table 2.15. The questionnaire was designed and formatted to enable electronic on-line completion and return. The majority of questions were of a "closed" type. The number of questionnaires completed in these surveys is shown, by region and catchment type, in Tables 2.16 and 2.17. In addition, in 2000, prior to the inception of the *Free Maps* scheme, a pilot sample of 85 geography teachers, recruited from primary and secondary schools in Northamptonshire and Warwickshire, completed an earlier version of this questionnaire survey. Moreover, in February 2005, a specially-tailored version of the email questionnaire survey was distributed to geography teachers in a sample of 490 schools in Scotland. The number of questionnaires completed in this survey is shown, by region and catchment type, in Tables 2.18 and 2.19.

Table 2.15 Topics covered in national questionnaire surveys of geography teachers, 2000-2006

- How did you find out about the *Free Maps* scheme?
- At what stage in Year 7:
 - are free maps given out?
 - do you teach map skills?
 - would it be most useful to receive free maps?
- How useful do you find the info/materials accompanying free maps?
- How easy have you found it to register for the Free Maps scheme?
- How has the Free Maps scheme assisted geography teaching/learning in your school?
- Has the Free Maps scheme made a difference to pupils' interest in geography?
- How have you made use of the free maps in school?
- Has your school purchased new maps since the start of the Free Maps scheme?

Table 2.16 Number of questionnaires completed in national questionnaire surveys of geography teachers (displayed by region⁵), 2000-2006

| REGION | OCT. 2002 | MAR. 2004 | MAR. 2005 | APR. 2006 |
|---------------|--------------|--------------|--------------|--------------|
| North East | 46 | 33 | 35 | 39 |
| North West | 46 | 53 | 92 | 83 |
| Yorkshire | 46 | 39 | 57 | 52 |
| East Midlands | 46 | 43 | 77 | 52 |
| West Midlands | 46 | 51 | 67 | 63 |
| East England | 46 | 40 | 61 | 59 |
| London | 46 | 56 | 75 | 67 |
| South East | 46 | 61 | 202 | 180 |
| South West | 46 | 55 | 91 | 85 |
| Scotland | 46 | 48 | 191 | 215 |
| Wales | 46 | 24 | 31 | 20 |
| | | | | |
| Total | 506 | 503 | 979 | 944 |

Table 2.17 Number of questionnaires completed in national questionnaire surveys of geography teachers (displayed by catchment type), 2002-2006

| SCHOOL | OCT. 2002 | MAR. 2004 | MAR. 2005 | APR. 2006 |
|--------------|--------------|--------------|--------------|--------------|
| Inner Urban | 85 | 81 | 147 | 132 |
| Suburban | 147 | 150 | 283 | 241 |
| Rural | 107 | 89 | 241 | 253 |
| Mixed | 166 | 174 | 308 | 284 |
| Not declared | 1 | 9 | 0 | 34 |
| | | | | |
| Total | 506 | 503 | 979 | 944 |

⁵ The regions used in this survey are Government Office Regions defined by the Office of National Statistics as part of the Nomenclature of Units for Territorial Statistics (NUTS) – Level 1.

Table 2.18 Number of questionnaires completed in survey of geography teachers in Scottish schools (displayed by region), 2005

| REGION | PRIMARY SCHOOLS | SECONDARY SCHOOLS |
|---------------------|-----------------|-------------------|
| Aberdeen | 32 | 6 |
| Angus | 15 | 2 |
| Argyll & Bute | 7 | 0 |
| Ayrshire | 10 | 2 |
| Clackmannanshire | 3 | 0 |
| Dumfries & Galloway | 36 | 0 |
| Dunbarton | 22 | 1 |
| Dundee | 4 | 0 |
| East Lothian | 13 | 1 |
| Edinburgh | 24 | 8 |
| Eilean Siar | 4 | 1 |
| Falkirk | 6 | 1 |
| Fife | 15 | 0 |
| Glasgow | 31 | 6 |
| Highlands | 51 | 6 |
| Inverclyde | 4 | 0 |
| Lanarkshire | 66 | 5 |
| Midlothian | 7 | 2 |
| Moray | 12 | 3 |
| Orkney Islands | 6 | 0 |
| Perth & Kinross | 13 | 1 |
| Renfrewshire | 15 | 3 |
| Scottish Borders | 16 | 0 |
| Shetland Islands | 6 | 0 |
| Stirling | 8 | 0 |
| West Lothian | 16 | 0 |
| | | |
| Total | 442 | 48 |

Table 2.19 Number of questionnaires completed in survey of geography teachers in Scottish schools (displayed by catchment type), 2005

| CATCHMENT AREA | PRIMARY SCHOOLS | SECONDARY SCHOOLS |
|----------------|-----------------|-------------------|
| Inner urban | 63 | 8 |
| Suburban | 102 | 10 |
| Rural | 220 | 15 |
| Mixed | 55 | 13 |
| Not declared | 0 | 2 |
| | | |
| Total | 442 | 48 |

2.3.4 In-depth interviews with geography teachers

In 2005 and 2006, in-depth interviews were conducted with the geography teachers most closely involved in administering the *Free Maps* scheme, in a sample of around fifty secondary schools across the UK. Topics covered in these interviews are listed in Table 2.20. The number of interviews completed in these surveys is shown, by region and catchment type, in Tables 2.21 and 2.22. This sample was derived by invitation. A cross-section of schools from each region of the UK was identified from Ordnance Survey's database of schools participating in the *Free Maps* scheme. In each school, the teachers responsible for running the *Free Maps* scheme was contacted and invited to take part in the survey. In addition, each teacher was asked to identify and invite other geography teachers from the school to contribute to the interview sessions. Most of the questions were of an "open" type, in order to ensure that teachers used their own words and descriptors to articulate their views and attitudes towards the scheme. Each interview session lasted for around 50 minutes, and was recorded for later transcription.

Table 2.20 Topics covered in in-depth interviews with geography teachers, 2005-2006

- Has it been straightforward to participate in the *Free Maps* scheme?
- How have the free maps been used in:
 - classroom-based work?
 - homework activities?
 - fieldwork?
 - project work?
 - lessons other than geography?
 - extracurricular activities?
- Has the *Free Maps* scheme made a difference to pupils' understanding of maps?
- Has the *Free Maps* scheme made a difference to pupils' enjoyment of maps?
- Has the *Free Maps* scheme made a difference to pupils' interest in maps?
- How has the *Free Maps* scheme impacted upon the teaching/learning of geography in your school?
- Has your school purchased new maps since the start of the *Free Maps* scheme?
- How could the *Free Maps* scheme be improved?

Table 2.21 Number of interviews conducted with geography teachers (displayed by region), 2005-2006

| REGION | 2005 | 2006 |
|------------------------|------|------|
| North East | 2 | 3 |
| North West | 3 | 4 |
| Yorkshire & Humberside | 3 | 4 |
| East Midlands | 7 | 6 |
| West Midlands | 6 | 5 |
| East of England | 3 | 3 |
| South East & London | 2 | 8 |
| South West | 5 | 4 |
| Scotland | 6 | 9 |
| Wales | 4 | 5 |
| | | |
| Total | 41 | 51 |

Table 2.22 Number of interviews conducted with geography teachers (displayed by catchment type), 2005-2006

| CATCHMENT TYPE | 2005 | 2006 |
|----------------|------|------|
| Inner urban | 12 | 15 |
| Suburban | 13 | 15 |
| Rural | 8 | 10 |
| Mixed | 8 | 11 |

2.3.5 Questionnaire survey of parents/carers

In 2003, questionnaires were sent to the parents/carers of every pupil who participated in the national survey of Year 7 pupils, described in Section 2.2.2 (p.12-13). Topics covered in this survey are listed in Table 2.23. The number of questionnaires returned is shown in Table 2.24.

Table 2.23 Topics covered in national questionnaire survey of parents/carers, 2003

- Do you know what Ordnance Survey is/does?
- Are you aware of the Free Maps scheme?
- How many times have you looked at your child's map
- How have you used your child's free map?
- How many Ordnance Survey maps have you purchased in the last 12 months?
- Are you likely to buy an Ordnance Survey map in the future?

Table 2.24 Number of questionnaires completed by parents/carers in national survey, 2003

| SCHOOL | NUMBER OF RESPONDENTS |
|-----------|-----------------------|
| Cranford | 21 |
| Croftfoot | 51 |
| Duffryn | 72 |
| Exmouth | 92 |
| Kineton | 46 |
| Oundle | 25 |
| | |
| Total | 307 |

3 FINDINGS FROM A LONGITUDINAL STUDY OF THE *FREE MAPS* SCHEME IN SIX PILOT SCHOOLS, 2000-2006

This section presents findings from CCY's longitudinal study of the progress of the *Free Maps for 11-Year-Olds* scheme in six pilot schools, between 2000-2006. It is structured in the following way.

- 3.1 Baseline data: key findings regarding the state of mapwork and mapping skills in British schools, prior to the *Free Maps* scheme
- 3.2 Findings from research with a pilot cohort of school pupils, 2001-2006:
 - longitudinal quantitative data
 - in-depth qualitative data
- 3.3 Findings from research with geography teachers in pilot schools, 2001-2002
- 3.4 Findings from research with parents/carers of pilot cohort of school pupils, 2001-2002

3.1 Baseline data: the state of mapping skills and mapwork in British schools, 2000-2001 (prior to the *Free Maps* scheme)

3.1.1 Research conducted by CCY in 2000-2001 amassed a body of data regarding the state of mapping skills and mapwork in British schools, prior to the launch of the *Free Maps* scheme. This research found that mapping skills and map work were fundamentally limited in four key senses.

3.1.2 Limited mapping skills among young people

Table 3.1 provides an indicative summary of the findings of CCY's survey of mapping skills among 6-14-year-olds in the UK. For each of the ten mapping skills 'graded' in this national survey, the percentage of each age group whose skills were judged to be in the lowest ('*poorest*') quartile of possible grades is shown. These data suggest that significantly limited mapping skills were commonplace in this age range, prior to the launch of the *Free Maps* scheme. For all of the assessed criteria, at least one-third of each age group displayed the lowest standard of mapping skills. All of the assessed mapping skills improved with age but, nevertheless, for some criteria (such as competence of scale, nodes and paths) profoundly limited mapping skills endured, to the extent that over one-half of 14-year-olds displayed the lowest standard.

Table 3.1 Indicative summary of national survey of mapping skills, 2000: proportion of 6-14-year-olds displaying the lowest ('poorest') standard of ten measured mapping skills

| CRITERIA | PERCENTAGE OF PARTICIPANTS WHOSE MAPPING SKILLS WERE GRADED IN THE LOWEST ('POOREST') QUARTILE | | | | | | | | | |
|---------------|--|----|----|----|----|----|----|----|----|--|
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| 'Competence' | 60 | 64 | 50 | 49 | 47 | 33 | 33 | 31 | 31 | |
| Style | 82 | 69 | 61 | 60 | 52 | 47 | 42 | 41 | 36 | |
| Scale | 81 | 77 | 77 | 73 | 71 | 66 | 60 | 57 | 60 | |
| Orientation | 67 | 61 | 58 | 58 | 53 | 53 | 33 | 33 | 33 | |
| Labelling | 52 | 48 | 48 | 44 | 43 | 40 | 33 | 31 | 29 | |
| Content | 72 | 61 | 55 | 50 | 42 | 33 | 33 | 31 | 31 | |
| Functionality | 86 | 76 | 62 | 61 | 53 | 45 | 41 | 39 | 33 | |
| Paths | 61 | 57 | 57 | 55 | 55 | 54 | 54 | 51 | 51 | |
| Nodes | 94 | 87 | 84 | 73 | 75 | 73 | 73 | 67 | 65 | |
| Landmarks | 82 | 77 | 67 | 67 | 59 | 44 | 45 | 39 | 31 | |

3.1.3 Key, and deepening, inequalities in mapping skills

Further analysis of the data reported in Table 3.1, in conjunction with personal information collected from each participant, revealed a number of key, related patterns of mapping skills, indicative of broader social and geographical differences.

- For each age group, and for most of the measured criteria, the mapping skills of pupils in inner urban schools were significantly more limited than those of pupils in suburban schools, which were, in turn, significantly more limited than the mapping skills of young people attending schools in rural areas.
- For each age group, and for most of the measured criteria, the standard of mapping skills appeared to be closely, positively related to the amount of time spent outdoors. Similarly, the mapping skills of young people who stated that they preferred being outdoors to being indoors were of a consistently higher standard compared to those who expressed a preference for being indoors.
- For each age group, and for all measured criteria, the standard of mapping skills appeared to be closely, positively related to the distance that participants travelled away from home without adult accompaniment. Those participants with a 'free range' of 1000 metres or more consistently displayed the highest standards of the assessed mapping skills.
- For each age group, and for all measured criteria, the mapping skills of young people who walked or cycled to school were of a significantly higher standard than those who were driven to school.

Moreover, a significant body of recent research conducted since 2000 has drawn attention to “the extinction of the outdoor child”⁶: that is, the way in which children and young people in the UK are increasingly and fundamentally limited in their ability to spend time outdoors, particularly without adults, as a result of contemporary societal trends and anxieties. In this context, given the importance of ‘range’ and time spent outdoors in determining young people’s mapping skills, it might be expected that the patterns noted above would have deepened.

3.1.4 Little engagement with maps/mapwork among young people

The questionnaire survey of the pilot cohort of Year 7 pupils conducted in September 2001 (prior to the distribution of free maps) found a widespread lack of engagement with, and interest in, maps and mapwork.

- Only around one-in-ten of the 11-year-olds surveyed said that they had ever found maps useful at school (12%) or home (7%).
- Fewer than one-in-ten (8%) of the 11-year-olds surveyed said that they had ever enjoyed using maps ‘a lot’ or ‘quite a lot’. Over half of the 11-year-olds surveyed (53%) said that they ‘did not enjoy’ using maps.
- Fewer than one-in-ten (8%) respondents said that they would consider buying a map in the next twelve months.
- Only around one-third of respondents said that they understood maps ‘quite well’ or ‘well’ (28%), or considered maps ‘important’.
- More than four fifths of respondents (81%) had not previously heard of Ordnance Survey.

These findings were reflected in responses given by geography teachers to a preliminary national questionnaire survey in 2000. Over half of the geography teachers surveyed (57%) stated that mapwork actively dissuaded students from opting to take Geography GCSE: these teachers suggested that mapwork was overwhelmingly seen as too boring, difficult, complex, unimportant, unenjoyable and unengaging by young people.

3.1.5 Aged and inappropriate stocks of maps in schools

In September 2001 (prior to the distribution of free maps), three-quarters (76%) of geography teachers in the six pilot schools were concerned that the mapping resources available in their schools

⁶ See for example recent research by the Children’s Play Council, available online at <http://www.ncb.org.uk/>

were inadequate to deliver the minimum requirements of the National Curriculum. Table 3.2 displays the stocks of mapping resources which were in regular usage in Year 7 Geography teaching, in those schools, at this time. All of the maps used in Year 7 teaching in the six pilot schools as of September 2001 were either more than 5-years-old (dating back, in some cases, to the 1960s/70s) and/or not of an area local to the school and/or not available at a ratio of one map per pupil. Significantly, the quality of available mapping resources was poorest in urban and inner-urban schools (that is, typical of catchment areas where pupils displayed the most limited mapping skills in 2000: see section 3.1.3, above).

Table 3.2 Mapping resources in regular usage in Year 7 teaching in the six pilot schools in September 2001

| SCHOOL | MAP SERIES | MAP NO. | ONE MAP PER PUPIL? | MAP SHOWS LOCAL AREA? | MAPS < 5 YEARS OLD? |
|------------------|-----------------|---------|--------------------|-----------------------|---------------------|
| Crown Hills | Outdoor Leisure | 150 | Yes | No | No |
| | Landranger | 160 | Yes | No | Yes |
| | Exam Extracts | NA | Yes | No | No |
| North Leamington | Landranger | 157 | No | No | No |
| | Explorer | 26/36 | No | No | No |
| | Exam Extracts | NA | No | No | No |
| William Parker | Landranger | 152 | No | Yes | No |
| | Exam Extracts | NA | Yes | No | Yes |
| Rugby | Landranger | 140 | Yes | Yes | No |
| | Landranger | 139 | Yes | Yes | No |
| | Landranger | 154 | Yes | No | No |
| | Explorer | 222 | No | Yes | Yes |
| | Exam Extracts | NA | Yes | No | No |
| Lenzie Academy | Landranger | 64 | No | No | No |
| | Pathfinder | 9555 | Yes | No | No |
| | Exam Extracts | NA | No | No | No |
| Morrison | Landranger | 24 | No | No | No |

3.2 Findings from research with a pilot cohort of school pupils, 2001-2006

CCY's research with pupils from the pilot cohort in six schools has gathered a substantial body of quantitative and qualitative information regarding the impacts and running of the *Free Maps for 11-Year-Olds* scheme, in practice, from the perspective of the children and people who participate in the scheme. Key findings from this research, to date, are as follows.

3.2.1 Longitudinal quantitative data

CCY's annual questionnaire surveys of the pilot cohort of school pupils have repeatedly posed identical questions about map use, ability and enjoyment. It is therefore possible to derive longitudinal data, tracking changing attitudes and practices in the pilot cohort, over time. The following longitudinal data indicate some outcomes of the *Free Maps for 11-Year-Olds* scheme, to date.

3.2.1.1 Usage of free maps

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked 'how often have you used your free map in the last year?' Usage of the free maps, from October 2001 (one month after receipt of free maps) to April 2006, is shown in Table 3.3. Evidently, there has been significant, ongoing engagement with the free maps in this period: 93 per cent of pupils in the pilot cohort have used their free map at least once since receiving it. Usage of the free maps peaked in the two years following receipt of the maps, when around one-third of the pilot cohort used their map four times or more. Map usage tailed off somewhat in the next two years, with an increasing proportion of the cohort unable to recall the whereabouts of their free map. Nonetheless, four years on from receiving their free map, nearly one-half (46%) of pupils in the pilot cohort used their free map at least once in 2005.

Table 3.3 Usage of free maps by pilot cohort, October 2001-April 2006.

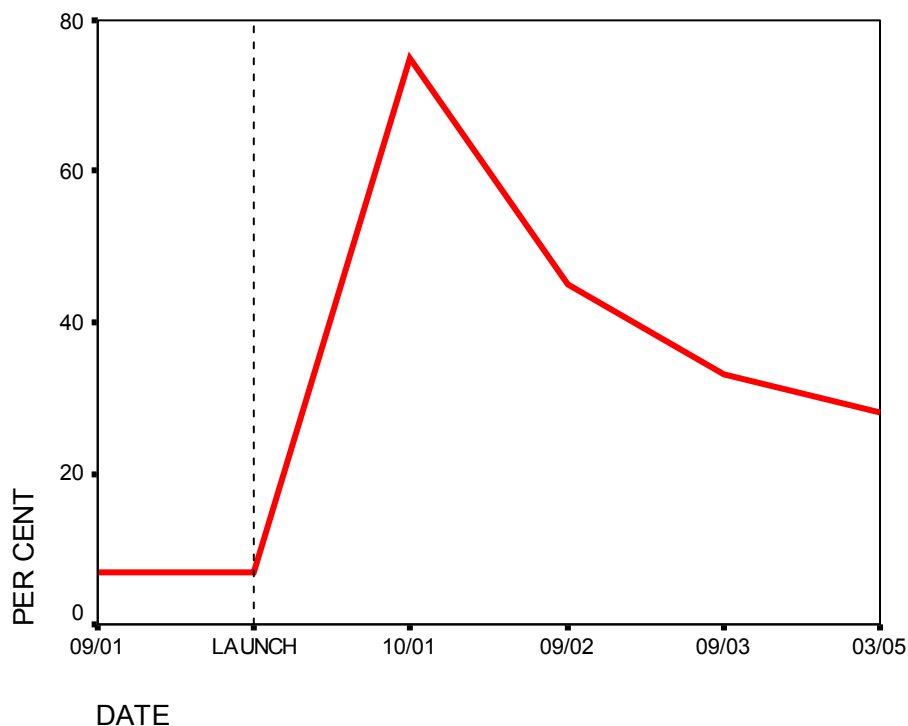
| NO. OF TIMES FREE MAP HAS BEEN USED | PERCENTAGE WHO HAVE USED FREE MAP IN LAST YEAR | | | | |
|---|---|---------------|---------------|--------------|--------------|
| | Oct. 2001 | Sept. 2002 | Sept. 2003 | Mar. 2005 | Apr. 2006 |
| 5+ | 23 | 22 | 8 | 4 | 4 |
| 4-5 | 11 | 17 | 7 | 4 | 4 |
| 2-3 | 35 | 31 | 15 | 12 | 9 |
| 1 | 24 | 20 | 15 | 24 | 14 |
| 0 | 7 | 10 | 54 | 56 | 43 |
| | | | | | |
| 'No longer have it' | 0 | 0 | 22 | 33 | 26 |
| 'Don't know where it is' | 0 | 0 | 10 | 17 | 8 |

3.2.1.2 Usefulness of free maps

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked to outline ways in which they have found their free maps useful, both at home and at school.

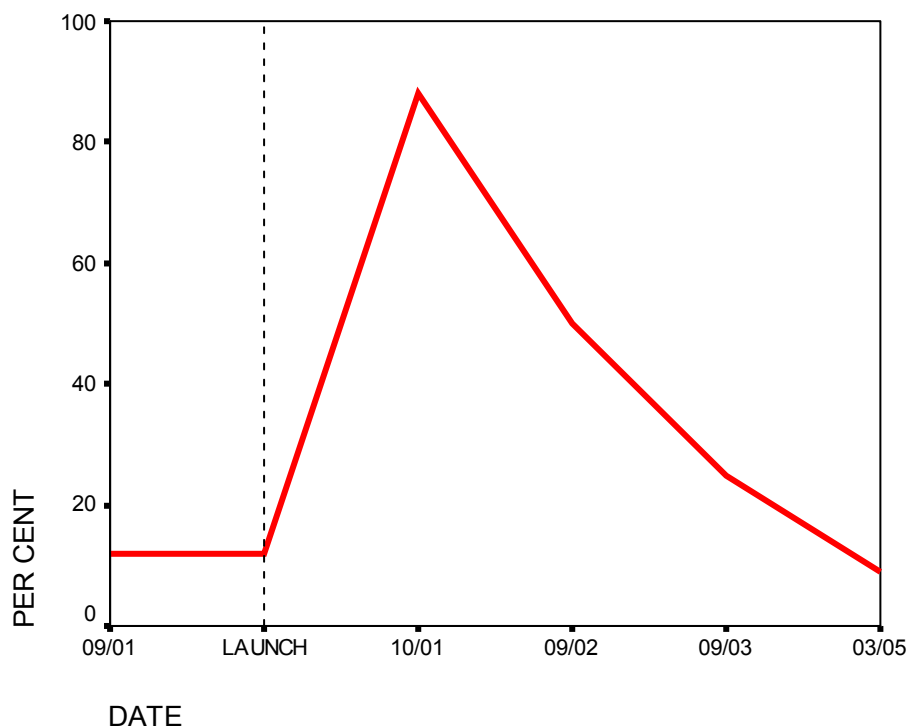
The proportion of the pilot cohort describing maps as useful at home, before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.1. Prior to the *Free Maps* scheme, fewer than one-in-ten pupils from the pilot cohort said that they had ever found maps useful at home (7%). One month after receiving their free maps, the proportion of the cohort who found maps useful at home had increased, dramatically, to 75 per cent. Specifically, pupils from the pilot cohort used their free maps for a wide range of purposes: to 'find a place' (66%); 'out of interest' (48%); on car journeys (26%); to 'get to know an area' (17%); planning a trip (17%); or when cycling (12%), sightseeing (10%) or hiking (9%). In subsequent years, the proportion of pupils describing maps as useful at home has tailed off somewhat, after an initial peak of engagement. Nonetheless, four years on from the launch of the *Free Maps* scheme, the number of pupils from the pilot cohort who describe maps as useful at home has quadrupled (now 28%), in comparison to the pre-scheme percentage.

Figure 3.1 Proportion of pilot cohort of school pupils describing maps as 'useful at home', before and after the launch of the *Free Maps* scheme



The proportion of the pilot cohort to describe their free map as useful at school, before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.2. Prior to the *Free Maps* scheme, just one-in-ten pupils from the pilot cohort said that they had ever found maps useful at school (12%). One month after receiving their free maps, the proportion of the cohort who found maps useful at school had increased, dramatically, to 88 per cent. However, in subsequent years, this proportion has tailed off dramatically, to the extent that only 9 per cent said that they found maps useful in 2005 (ie. during Year 10 of their school career). This finding coincides with national-level data regarding the declining uptake of GCSE Geography, and the limited opportunities to use free maps in curricular activities after Year 9 (see Section 3.3.2).

Figure 3.2 Proportion of pilot cohort of school pupils describing maps as 'useful at school', before and after the launch of the *Free Maps* scheme

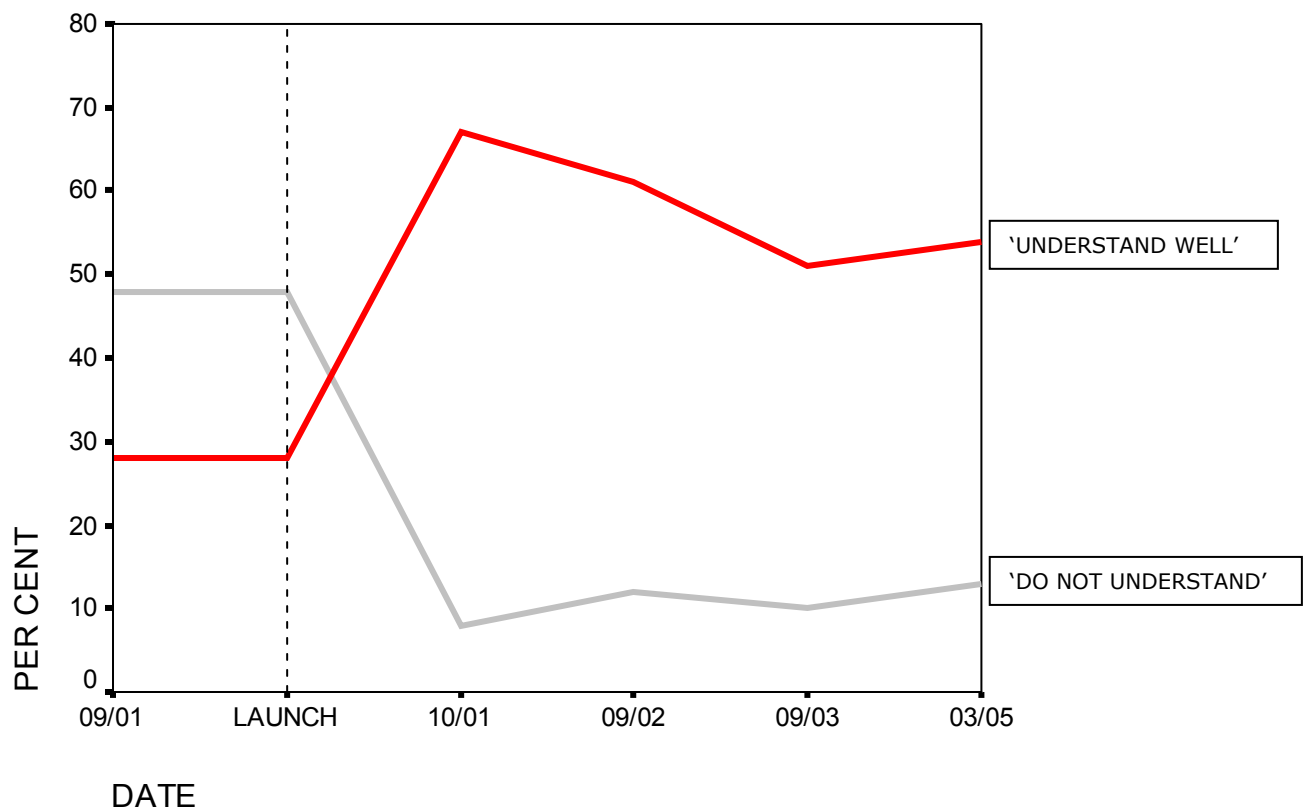


3.2.1.3 Understanding of maps

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked how well they feel they understand maps. The proportion of the pilot cohort stating that they understand maps 'well', and the proportion stating that they 'do not understand' maps, before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.3. Prior to the *Free Maps*

scheme, nearly twice as many pupils from the pilot cohort said they 'did not understand' maps (48%) as said they understand maps 'well' (28%). One month after receipt of free maps, this situation had dramatically reversed, with two-thirds (67%) of the pilot cohort confident that they understood maps 'well' and fewer than one-in-ten (8%) feeling that they 'did not understand' maps. In subsequent years, pupil understanding of maps has tailed off somewhat, after an initial peak of understanding. Nonetheless, four years on from the launch of the *Free Maps* scheme, the number of pupils from the pilot cohort who are confident in their understanding of maps has doubled (now 54%), in comparison to the pre-scheme figures. Likewise, four times fewer (now 13%) pupils say that they 'do not understand' maps, compared to the pre-scheme situation.

Figure 3.3 Proportion of pilot cohort of school pupils who 'understand maps well' and 'do not understand' maps, before and after the launch of the *Free Maps* scheme

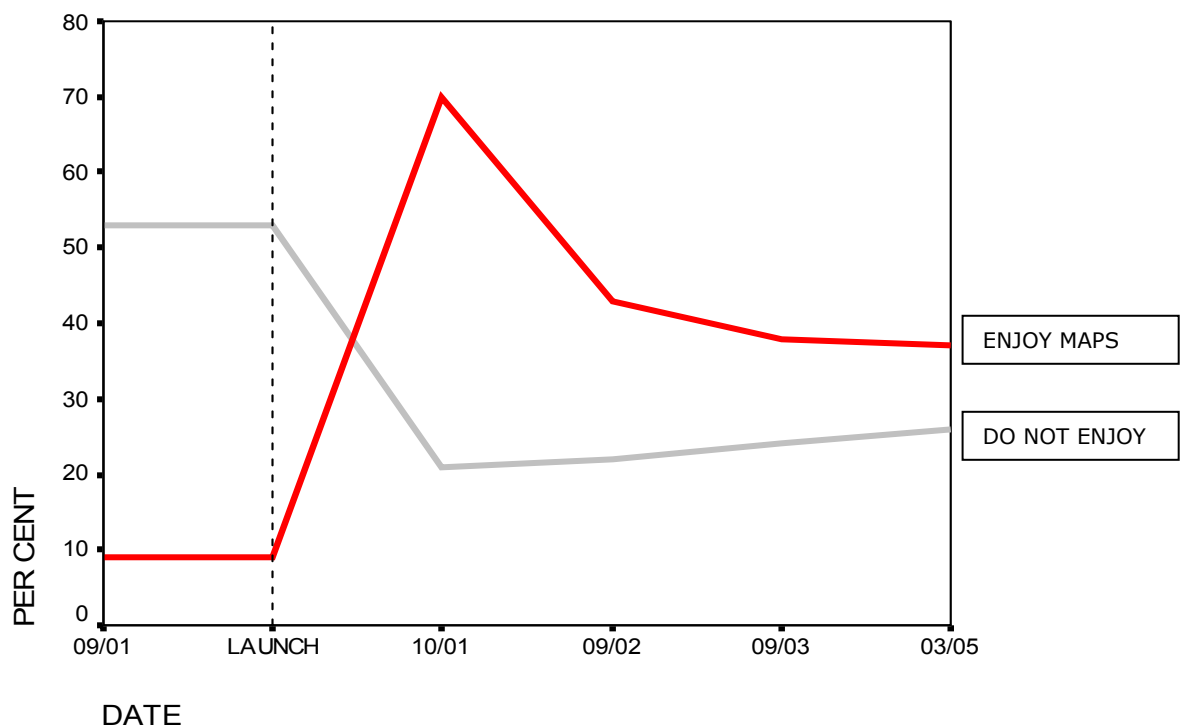


3.2.1.4 Enjoyment of maps

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked how much they enjoy using maps. The proportion of the pilot cohort who enjoy using maps, and the

proportion stating that they do not enjoy using maps, before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.4. Prior to the *Free Maps* scheme, five times as many pupils from the pilot cohort said they did not enjoy using maps (53%) as said they enjoyed using maps (9%). One month after receipt of free maps, this situation had dramatically reversed, with seven-tenths (70%) of the pilot cohort feeling that they now enjoyed maps, and one-in-five (21%) feeling that they did not enjoy maps. In subsequent years, pupil enjoyment of maps has tailed off somewhat, after an initial peak of enjoyment. Nonetheless, four years on from the launch of the *Free Maps* scheme, the number of pupils from the pilot cohort who enjoy using maps has trebled (now 37%), in comparison to pre-scheme figures. Likewise, half as many (now 26%) pupils say that they do not enjoy maps, compared to the pre-scheme situation.

Figure 3.4 Proportion of pilot cohort of school pupils who enjoy maps and do not enjoy maps, before and after the launch of the *Free Maps* scheme

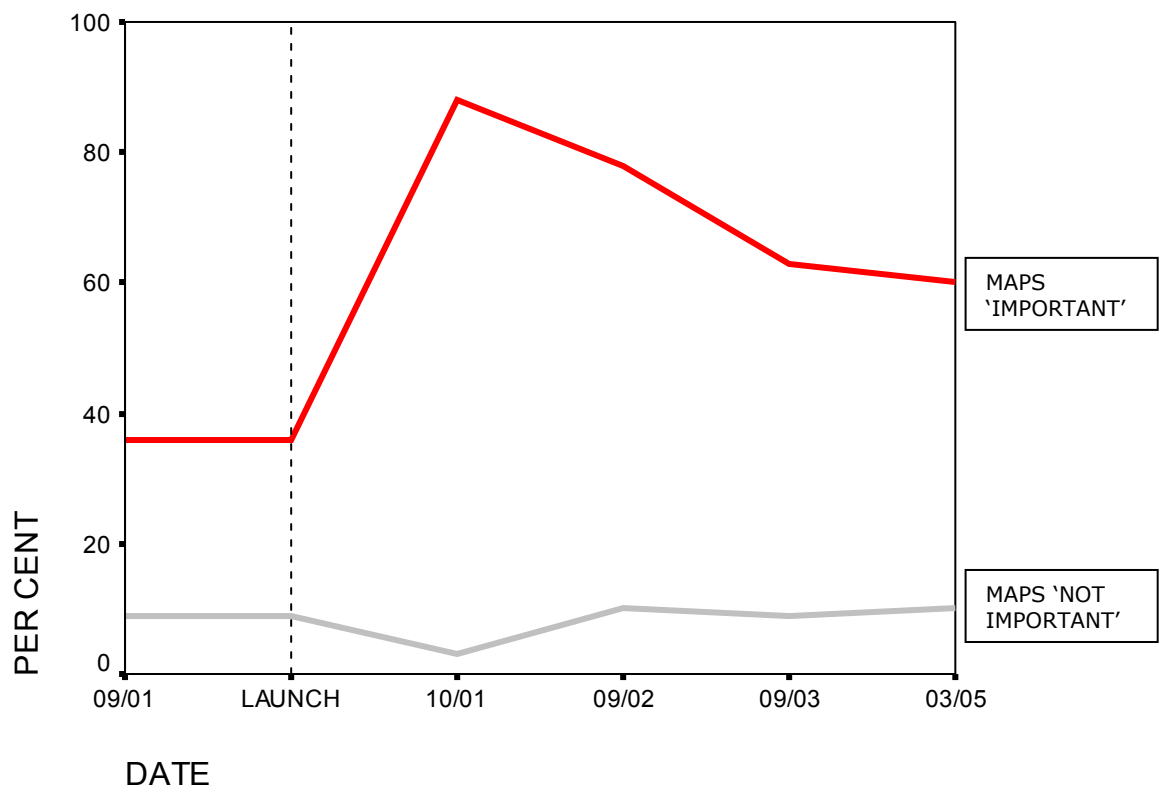


3.2.1.5 Perceived importance of maps

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked the extent to which they consider mapping skills important. The proportion of the pilot cohort stating that maps are 'important' and 'not important', before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.5. Prior to

the *Free Maps* scheme one-in-three (36%) pupils from the pilot cohort stated that maps were important. One month after receiving their free maps, the proportion of the cohort who found maps useful at home had increased, dramatically, to 88 per cent. In subsequent years, the proportion of pupils describing maps as important has tailed off somewhat, after an initial peak of perceived importance. Nonetheless, four years on from the launch of the *Free Maps* scheme, the number of pupils from the pilot cohort who perceive maps as important has doubled (now 60%), in comparison to the pre-scheme percentage. The proportion of the pilot sample describing maps as 'not important' has remained more-or-less constant, with around one-in-ten pupils taking this view, at any given time.

Figure 3.5 Proportion of pilot cohort of school pupils perceiving maps as 'important' and 'not important', before and after the launch of the *Free Maps* scheme

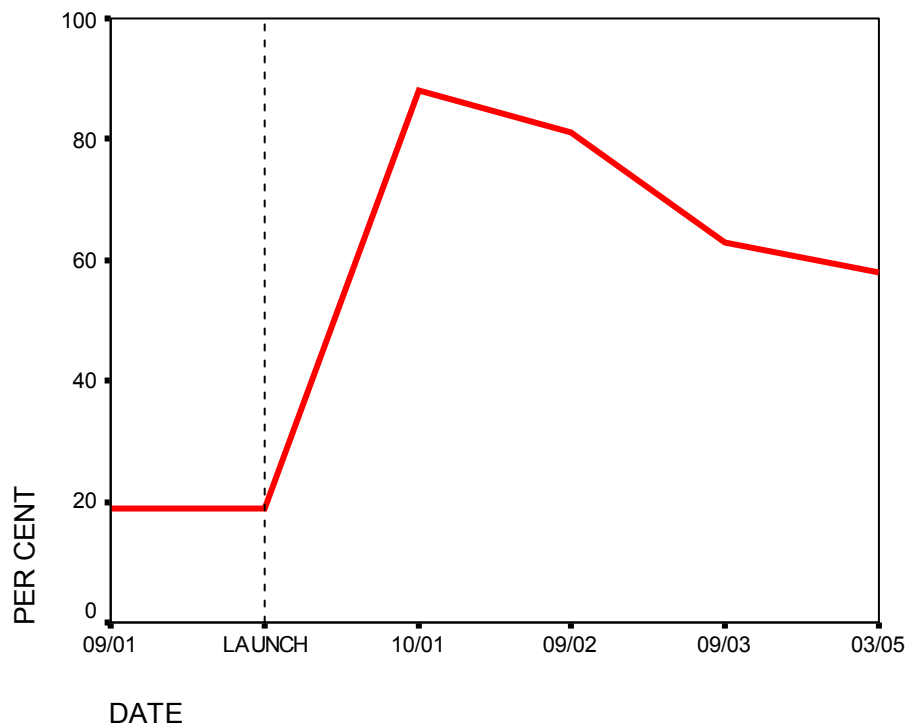


3.2.1.6 Awareness of Ordnance Survey

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked whether they understand what Ordnance Survey is/does. The proportion of the pilot cohort aware

of the role of Ordnance Survey, before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.6. Prior to the *Free Maps* scheme one-in-five (19%) pupils from the pilot cohort were aware of Ordnance Survey's role. One month after receiving their free maps, this proportion had increased, dramatically, to 88 per cent. In subsequent years, the proportion of pupils describing maps as important has tailed off somewhat, after an initial peak of awareness. Nonetheless, four years on from the launch of the *Free Maps* scheme, the number of pupils from the pilot cohort who are aware of Ordnance Survey's role has almost trebled, (now 58%), in comparison to the pre-scheme percentage.

Figure 3.6 Proportion of pilot cohort of school pupils aware of the role of Ordnance Survey, before and after the launch of the *Free Maps* scheme

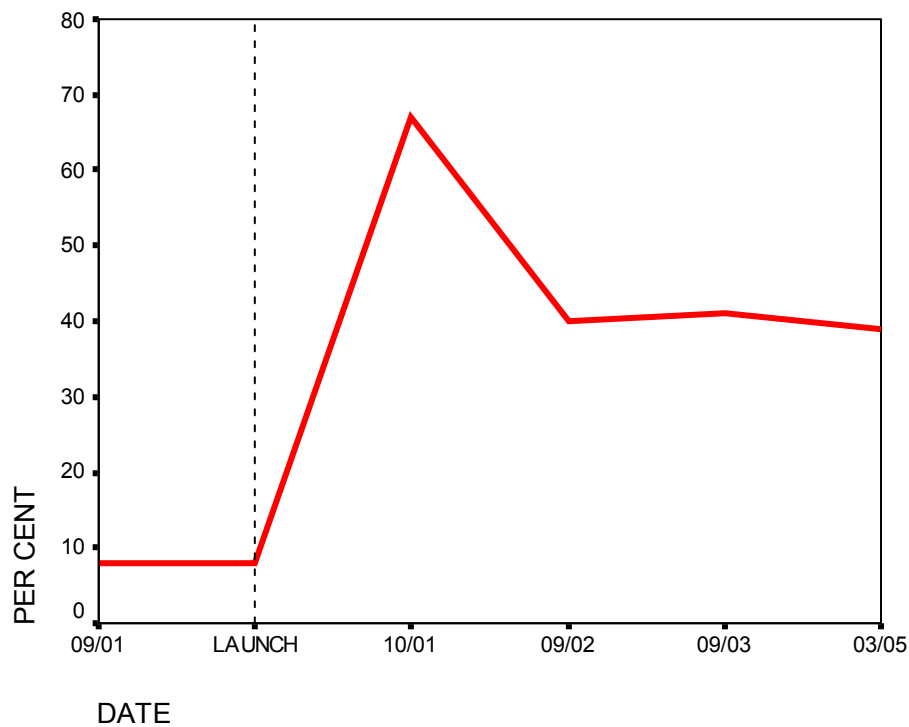


3.2.1.7 Likelihood of purchasing maps

At regular intervals since receipt of their free maps, the pilot cohort of school pupils have been asked whether they expect to purchase a map in the next twelve months. The proportion of the pilot cohort likely to purchase a map, before and after the launch of the *Free Maps* scheme, is displayed in Figure 3.7. Prior to the *Free Maps* scheme, fewer than one-in-ten (8%) pupils from the pilot cohort expected to buy a map in the following twelve months. One month

after receiving their free maps, this proportion had increased, dramatically, to 67 per cent. In subsequent years, the likelihood of pupils purchasing a map has tailed off somewhat, after an initial peak of enthusiasm. Nonetheless, four years on from the launch of the *Free Maps* scheme, the number of pupils from the pilot cohort who say that they are likely to purchase a map has increased fivefold (now 39%), in comparison to the pre-scheme percentage.

Figure 3.7 Proportion of pilot cohort of school pupils likely to purchase a map in the next twelve months, before and after the launch of the *Free Maps* scheme



3.2.2 In-depth qualitative data

CCY's focus groups with pupils from the pilot cohort provided some deeper insights into these pupils' experiences of the *Free Maps* scheme. To date two rounds of focus groups have been conducted with pupils from the pilot cohort: in 2002 (one year on from receipt of free maps; when the pilot cohort were in Year 8) and 2005 (four years on from receipt of free maps; when the pilot cohort were in Year 10). Key findings from these focus groups were as follows.

3.2.2.1 Findings from pilot cohort focus groups in 2002 (one year after receipt of free maps)

The following themes were significant in focus groups with pupils from the pilot cohort in 2002.

First, the vast majority of pupils described the considerable excitement and enjoyment occasioned by initially receiving their free map.

"Wow...hooray...it was my first map". Boy, Crown Hills.

"I thought it was good cos they cost quite a lotI thought it would be really interesting to look at your local area". Boy, North Leamington.

"Quite lucky in a way, cos they're quite expensive...it's quite nice to be given one for free...they are actually quite useful". Boy, Rugby.

"As soon as I got it the first thing I looked for, I couldn't wait to open it and look for the school, and my house". Boy, North Leamington.

Second, pupils described numerous ways in which they had found their free map useful, both at home and at school. At home, pupils had found their free maps useful for a range of purposes: for example, for routefinding, walking, cycling, finding places of interest, clubs/hobbies, or 'just out of interest'.

"Yeah, I looked at it to find the way from like the city centre of Glasgow and to the football ground, to go and see the football". Boy, Lenzie Academy.

"I've used it just out of interest ...we've got a horse so I've been looking at the bridleways". Girl, North Leamington.

"I've looked at it at school and I looked at it... at home, just to find my house and things. Girl. Yeah, I've used it quite a lot because I used it with a few of my friends cos we were planning a walk". Boy, Lenzie Academy.

"Sometimes I get a car lift home, so I do...the car route as we're going to school...I just try and figure out the way...get a picture in my head of the whole of Daventry". Boy, William Parker.

"I've used the map about 8 or 9 times...I needed to look for where our new training ground was and my dad looked at the map to help me out and told me where I can go...and the route to take for my bike". Boy, Crown Hills.

"I've used it quite a lot at home with my parents...we're moving house so we've used it to see how far away from school we are. So we are using it to measure". Girl, Rugby.

"I used it to get used to the Rushmead area. I didn't know where all the local shops and parks were 'cos I've moved house. So I looked at the map so I could go bike riding". Boy, William Parker.

"Well I looked on the map and I found like this, basically like a big field, with like a little shed thing, and I thought 'oh that looks a bit interesting I'll go and have a look at it'. And another time, there was a museum down in Lutterworth that my cousin, saw on the map, and we went and found it, so we found out that there was a museum nearby that we didn't know about". Boy, Crown Hills.

"Me and [my friend] go to scouts, and we went and we got a badge because we could do map reading". Boy, Rugby.

"I used it to see where my paper round route was and, my Auntie wanted to know what hotels there was on a certain road". Boy, Morriston.

In the process, the free maps had often been well-used by the family and friends of pupils from the pilot cohort.

"Well my parents keep using it to ...plan journeys and things...but I am actually using it for looking for stuff. My parents have used it hundreds of times". Boy, William Parker.

"I've used it about once but my dad's used it quite a lot". Girl, North Leamington.

"I've used it about 5 to 10 times, I've used it quite a lot...but I think my mum and dad have used it more than me". Girl, Rugby.

"My Mum's used it quite a bit...to find out what sort of area it is...my auntie has too". Boy, Morriston.

"Yeah, they [parents] keep lending it to people, like my grand parents... they all want to see it". Girl, Lenzie Acdaemy.

"My Mum usually says 'we're going somewhere' and she'll usually get the map out to have a look". Boy, Lenzie Acdaemy.

"If I'm looking at something and got the map out, then my friends will start looking at it as well". Girl, North Leamington.

Pupils from the pilot cohort also reported that their free maps had had regularly used their maps for class work and/or homework.

"I've just mainly used it in lessons within the school...I've used it about five times in school...used it for contour lines...we've done loads of stuff on symbols...grid references. Instead of just having a picture on the board or a picture on the projector... it's good as our teacher can sort of say 'find whatever' and then you can actually see for yourself". Boy, Rugby.

"We've Used it about 8 to 10 times. We had a little game once...we had to get the co-ordinates and we had to find it on the map...cool...we learned how to read the grid-reference things". Girl, Daventry.

"We've used the map loads for geography homework...we used it for symbols...referencing". Girl, North Leamington.

Third, pupils from the pilot cohort described ways in which ownership of their free map had considerably extended their understanding of, and enthusiasm for, maps and mapping. One year on, most pupils were very positive about the benefits of owning a map and of the free-map scheme. For example, many described how their interest in maps had increased as a direct result of the *Free Maps* scheme.

"It kind of makes you more eager to look at other maps". Boy, North Leamington

"Yeah...before I didn't really look at maps, but now I look at them...Before I used to think it was too big and I wouldn't understand it...when I got this I could actually look at it and [I now realise] it only takes you a few minutes to find ...what you're looking for...It's much easier than I thought". Girl, North Leamington.

"When we got the maps I never knew ...how to find something...but it has certainly got easier...Before I used to look at maps and it sort of left me cold...now I understand them ...it makes me more interested to visit different places". Girl, Crown Hills.

"When I first got the map I thought "what on earth am I going to do with this" but in the end it's turned out alright – I am glad that I had one". Girl, William Parker.

"Now, when I go on holiday I have a look at the map. And I look in the gift shops 'cos you could buy some, 'cos on holiday and that, there are some gift shops and that they have some of the area". Boy, William Parker.

"I didn't think I'd use it at first...but then when I got it home and I opened it and I looked at...I thought I'd put it somewhere special". Girl, Crown Hills.

"Having the map, it sort of, makes you more interested and sort of, finding your own way along the paths and so on". Boy, Lenzie Academy.

Moreover, the majority of pupils suggested that their map reading skills and confidence in mapping tasks had substantially improved as a result of owning a map.

"I'm a better map-reader...I'm better at pinpointing places...using co-ordinates...using symbols". Boy, William Parker.

"When I looked at maps before I was really confused but now I've learned about it I understand it...it has taught me about symbols and stuff". Girl, Rugby.

"It's helped me like looking at other maps...helped me to learn how to use them...about map reading". Girl, Lenzie Academy.

"Having our own map has really helped to, like, make our knowledge better to help us study it sort of thing". Girl, Morriston.

"Before I used to think it was too big and wouldn't understand it, and when I got this I could actually look at, it only takes you a few minutes to find and where you actually, where you're looking for". Girl, Lenzie Academy.

One year on from receiving free maps, there was general agreement among the pilot cohort that map reading was important and that the free-map scheme had raised awareness of the value of maps.

"Being able to read maps gives you freedom...helps you find out about places, where you are, stops you getting lost...opens up the world". Girl, Crown Hills

"Map reading is really important...cos when you leave home you'll know how to do it and everything cos you won't have your mum and dad to help you. Yeah, it's really important... It helps you get around...it's a real skill". Girl, North Leamington.

"It's just nice knowing where you are and stuff. It's just like, makes you feel like, um, well if you like where you are and like

things around you if you, to know what there is, and if you like it". Boy, Morriston.

"Having your own map, it just gives you a better view of Scotland if ya know what I mean". Boy, Lenzie Academy.

Indeed, pupils recognised that the free-map scheme had been of considerable value to them in their personal and academic development.

"It's been good in developing our skills for now and for when we are older". Girl, William Parker.

"Say you never learned map reading, that would be something that limits you in your future life? Before I used to look at maps and sort of left it away, and now that I understand them look at more different places and what surroundings are so it makes me more interested to visit different places". Boy, Lenzie Academy.

"Before I never liked maps and never bothered with them...Now I like them...its made me more interested, like. We never had a map in the house before...all we've got is an atlas in the car". Girl, Morriston.

"It's helped me learn quite a lot about maps...If I saw another map it would be easier to use ...We'd be practiced". Girl, Lenzie Academy.

"It's been a good thing...We've learnt a lot". Boy, Crown Hills.

Fourth, one year on from receiving their free maps, pupils from the pilot cohort, expressed two small but significant reservations with the *Free Maps* scheme. On the one hand, some pupils were evidently unwilling to engage with the scheme, believing that there was a covert, ulterior (commercial or educational) motive behind the scheme.

"At first I thought it was like a sales programme...them trying to sell us more maps". Boy, William Parker.

"I keep thinking its like an advert, like 'oh these maps are really good – go and buy some!'". Boy, William Parker.

"I thought they were just trying to get rid of them...Like they can't sell them". Girl, Morriston.

"When we got our maps I thought it was probably going to be a test on it or something. Boy. Yeah, I thought they were just trying to trick us". Girl, Morriston.

For other pupils, a frustration with the difficulty of folding/unfolding their map slightly limited their engagement with the *Free Maps* scheme.

"I don't like folding it – folding is very confusing". Girl, Rugby.

"I can't really fold it...it's a bit too big...if you were in a car or something you'd get completely lost". Girl, William Parker.

3.2.2.2 Findings from pilot cohort focus groups in 2005 (four years after receipt of free maps)

The following themes were significant in focus groups with pupils from the pilot cohort in 2005.

First, it was clear that, four years on, pupils from the pilot cohort continued to find their free map useful, both at home and at school. The maps continued to be used in varied ways, for example, for routefinding, walking, cycling, finding places of interest, clubs/hobbies, or 'just out of interest'.

"I used to have a quad bike about a year ago and we used the map to go like to forests and that and go on it. So I had a look at my map and just finding places and like it's quite interesting to use because you get to go to new places and that". Boy, William Parker School.

"I have used it in Cadets and Duke of Edinburgh". Boy, Morriston School.

"When I am on holiday I will have a look at my map and see". Girl, Morriston School.

"It's good when you don't know where something is and you really need to find it, like in an emergency it's really quick. A good reference and stuff". Boy, Crown Hills School.

"I discovered new places...I know that sounds really stupid but...you are looking at it and you think to yourself, oh I have never been there before and I will go and check it out like". Girls, William Parker School.

"In D of E you just get thrown in. You have to work out your route and it's like, but we haven't because we have had the

maps and we know what to do. So it's made it easier so that's good". Boy, William Parker School.

Evidently, the free maps continued to be well-used by family members and friends of pilot school pupils.

"My Dad used it. It's been in his car for ages". Boy, William Parker School.

"It's been helping my little brother [10 years old] with his work. So it's not just like for all the pupils, it's helping other people as well". Girl, Crown Hills School.

"My parents use the map for their for dog walks", Girl, North Leamington School.

"[My Dad uses it] like to find a street. Like if people come over and they need to find a street. He just looks at that". Boy, Crown Hills School.

Moreover, many of the pupils talked about how their maps had continued to prove useful for school work and homework.

"We are doing map work now...We used to find out the distances from places, finding out about the symbols and stuff like that... We got to go for a walk around the Headlands using the map". Boy, William Parker School.

"We had to write like a trail or something and used them for getting co-ordinates", Boy, North Leamington School.

"We did this case study on Leicester...location, stuff about houses. Having the map kind of helps you know where like the high class residential areas and stuff are. It helps you with like coursework and stuff". Girl, Crown Hills.

"For Year 8 we went on the internet and did some satellite [pictures] and compared them to some maps and stuff". Boy, Crown Hills.

"It gives you more local knowledge as well. Mapwork would not have been the same without it" Boy, William Parker School.

"It is good having a map each for lessons, 'cos you don't have to share or like interrupt anyone using their's" Boy, Crown Hills.

"If you have your own map, no-one else can vandalise it or scribble or rip it or something". Girl, Morrington School.

Second, pupils stressed ways in which map ownership via the *Free Maps* scheme had significantly boosted their enthusiasm, abilities and appreciation with respect to maps. There was a general view as well that map reading was important and that the free map scheme had raised awareness of the value of maps. For example, most pupils were keen to impress that their interest in maps had continued to increase as a direct result of map ownership.

"Well it's more physical so you get to do something. Whereas normally you just sit and write". Boy, William Parker School.

"It sticks in your head more. Whereas like if you get thrown in now you have got loads of other stuff to think about as well, and then you have to start learning how to read a map". Girl, William Parker School.

"Doing work with the maps is better than copying facts". Boy, North Leamington School.

A substantial proportion, too, suggested that their map reading skills and confidence in mapping tasks had considerably improved as a direct result of owning a map.

"I think it's quite useful doing it with a map of your own local area...you learn more". Girl, North Leamington School.

"You remember it more if you do it yourself, rather than just learning facts". Girl, William Parker School.

"You do like the basics and it gave you the equipment to just like do it for yourself". Girl, William Parker School.

"It gives you more local knowledge as well... because you wouldn't take any notice of it if it was somewhere else". Girl, William Parker School.

Finally, however, pupils outlined reported ways in which they have become somewhat disengaged from the *Free Maps* scheme, four years on from receiving their free maps. The primary reason for this disengagement was that by Year 10 the maps were seldom used for either homework or classwork. This, coupled with a sense that the 'novelty' of having a map had worn off, significantly limited continued engagement with their free maps.

"The school don't expect us to bring it in any more, so it just gets left". Girl, Crown Hills School.

"We never bring them in to school... We don't really need them now". Girl, Morrision School.

"We used them many times for homework when we first had them, not at all now". Boy, North Leamington School.

"I found the map was alright when I got it but I just forgot about it. You sort of lose interest in it because you use it less and you just sort of forgot about it as time went on". Boy, William Parker School.

"I've lost my map now. I never enjoyed map work anyway". Boy, North Leamington School.

"I used to think it was good, but now it's like a waste of time...because...I don't need a map to help me". Boy, North Leamington School.

"It was good at the start, but it's got boring now. Like, the novelty's worn off, and there's not much left to do with it". Girl, North Leamington School.

Pupils continued to complain about the difficulty of folding/unfolding their maps. Moreover, increasing numbers of pupils were of the opinion that paper maps were obsolete and unhelpful, compared to internet resources.

"I don't like the fact that it's double sided and you have to keep flicking over. ... It's hard to follow". Girl, Morriston School.

I don't think I have ever used it out of school." "[They should be] made on a smaller scale so it can be easier to fold. Like maybe in a bookle"A map with pages that you can turn more easily". Girl, William Parker School.

"I don't see the point. You just use the internet. You can type in the postcode. It just gives you the map". Girl, William Parker School.

"If I want to go somewhere and do something I'd go on the internet. It's actually a lot easier than looking at the map." Girl, North Leamington School.

3.3 Findings from research with geography teachers in pilot schools, 2001-2002

CCY's research with geography teachers from the six pilot schools has gathered quantitative and qualitative information regarding the impacts and running of the *Free Maps for 11-Year-Olds* scheme, in practice, from the perspective of teachers. Key findings from this research, to date, are as follows.

3.3.1 Quantitative data

CCY conducted questionnaire surveys of geography teachers in pilot schools in September 2001 (prior to the pilot launch of the *Free Maps* scheme in these schools), October 2001 (one month after the distribution of free maps) and September 2002 (one year after the distribution of free maps). In these surveys, teachers were asked to comment upon map usage in geography lessons, and pupils' engagement with mapwork. A comparison of the situation in these schools before and after the launch of the *Free Maps* scheme affords some insights into the impacts of the scheme, in a variety of school environments.

3.3.1.1 Usage of free maps

A key aim of the questionnaire surveys of geography teachers in the six pilot schools was to audit the use of mapping resources for classroom work, homework activities, and outdoor activities, before and after the provision of free maps. Prior to the distribution of free maps, each teacher consulted was asked to indicate how many times they used Ordnance Survey maps in classwork, homework and outdoor activities at Key Stage 3 (ie. ages 12-14; School Years 7-9). This audit was then repeated one month, and one year after free maps were distributed to pupils at the pilot schools. Tables 3.4, 3.5 and 3.6 provide an indicative longitudinal summary of these audits of map usage. The proportion of teachers who used Ordnance Survey maps more than five times for classwork, homework and outdoor activities at Key Stage 3, before and after the launch of the *Free Maps* scheme, is shown. In each case, it was evident that the advent of the *Free Maps* scheme had a significant impact upon the teaching of Geography in the pilot schools. For the vast majority of schools, it was evident that, following the distribution of free maps, usage of Ordnance Survey maps became increasingly embedded in the Geography curriculum at Key Stage 3, with more teachers making significantly more use of Ordnance Survey maps in their teaching. Significantly, this increase in usage was most dramatic in those schools where map usage was most limited prior to the *Free Maps* scheme (and where extant mapping resources were poorest: see section 3.1.5). The only exception to this pattern of increased usage was Rugby School, where maps were already extensively used prior to the scheme.

Table 3.4 Proportion of Geography teachers in pilot schools using Ordnance Survey maps more than 5 times for classwork at Key Stage 3, before and after the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS USING OS MAPS MORE THAN FIVE TIMES AT KS 3 | | |
|-------------------------|---|--------------------------------|-------------------------------|
| | Prior to scheme | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 10 | 22 | 67 |
| North Leamington School | 17 | 50 | 60 |
| William Parker School | 50 | 50 | 50 |
| Rugby School | 100 | 100 | 100 |
| Lenzie Academy | 0 | 25 | N/A |
| Morrison School | 0 | 17 | 100 |

Table 3.5 Proportion of Geography teachers in pilot schools using Ordnance Survey maps more than 5 times for homework at Key Stage 3, before and after the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS USING OS MAPS MORE THAN FIVE TIMES AT KS 3 | | |
|-------------------------|---|--------------------------------|-------------------------------|
| | Prior to scheme | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 0 | 0 | 22 |
| North Leamington School | 0 | 0 | 40 |
| William Parker School | 20 | 25 | 50 |
| Rugby School | 80 | 100 | 75 |
| Lenzie Academy | 0 | 0 | N/A |
| Morrison School | 0 | 17 | 33 |

Table 3.6 Proportion of Geography teachers in pilot schools using Ordnance Survey maps more than 5 times for outdoor activities at Key Stage 3, before and after the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS USING OS MAPS MORE THAN FIVE TIMES AT KS 3 | | |
|-------------------------|---|--------------------------------|-------------------------------|
| | Prior to scheme | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 0 | 22 | 22 |
| North Leamington School | 0 | 25 | 40 |
| William Parker School | 0 | 25 | 50 |
| Rugby School | 60 | 100 | 100 |
| Lenzie Academy | 0 | 25 | N/A |
| Morrleston School | 0 | 0 | 33 |

After the distribution of free maps, geography teachers were asked whether the provision of free maps had enabled them to use maps in innovative ways in Key Stage 3 teaching. Responses are shown in Table 3.7. In each of the pilot schools, it was clear that, even one month after receipt of the free maps, innovative ways of using maps had been developed by many teachers. One year after the distribution of maps, there was evidently major innovation in the usage of maps in Geography teaching at Key Stage 3 at the pilot school: in the majority of pilot schools at least two-thirds of Geography teachers reported that the provision of free maps had enabled them to use maps in innovative ways.

Table 3.7 Proportion of Geography teachers in pilot schools able to use maps innovatively after the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS USING OS MAPS INNOVATIVELY AT KS 3 | |
|-------------------------|---|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 33 | 67 |
| North Leamington School | 50 | 60 |
| William Parker School | 75 | 100 |
| Rugby School | 100 | 100 |
| Lenzie Academy | 50 | N/A |
| Morrleston School | 17 | 33 |

3.3.1.2 Pupil understanding of mapwork

Prior to the distribution of free maps, each Geography teacher consulted was asked to indicate how well they felt that their Key Stage 3 pupils understood mapwork. Table 3.8 shows the proportion of teachers at each pilot school who felt that their Key Stage 3 pupils understood mapwork 'well' or 'very well', prior to the launch of the *Free Maps* scheme. In all but one of the pilot schools, the majority of Geography teachers were not confident that their pupils understood mapwork 'well' or 'very well'. The only exception to this pattern was Rugby School (the pilot school with the most impressive mapping resources, and where mapwork was most extensively embedded in the Key Stage 3 curriculum: see sections 3.1.5 and 3.3.1.1).

Table 3.8 Proportion of Geography teachers in pilot schools who felt that their Key Stage 3 pupils understood mapwork 'well' or 'very well' prior to the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS WHO FEEL THAT KS3 PUPILS UNDERSTAND MAPWORK |
|-------------------------|--|
| Crown Hills College | 20 |
| North Leamington School | 33 |
| William Parker School | 40 |
| Rugby School | 100 |
| Lenzie Academy | 33 |
| Morrison School | 25 |

After the distribution of free maps, geography teachers were asked whether the provision of a new, free map per pupil had assisted pupils' understanding of mapwork. Table 3.9 shows the proportion of teachers at each pilot school who felt that their Key Stage 3 pupils understood mapwork 'better' or 'a lot better', following the distribution of free maps. In all schools, the majority of Geography teachers were certain that their pupils understood mapwork 'better' or 'a lot better' following the launch of the *Free Maps* scheme. Significantly, this increase in understanding was most dramatic in those schools where extant map usage and resources were most limited prior to the *Free Maps* scheme (see sections 3.1.5 and 3.3.1.1), and which were typical of the catchments with the 'poorest' mapping skills among young people (see section 3.1.3).

Table 3.9 Proportion of Geography teachers in pilot schools who felt that Key Stage 3 pupils understood maps 'better' or 'a lot better' following the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS WHO FEEL THAT KS3 PUPILS UNDERSTAND MAPWORK BETTER | |
|-------------------------|---|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 100 | 89 |
| North Leamington School | 80 | 100 |
| William Parker School | 75 | 75 |
| Rugby School | 100 | 75 |
| Lenzie Academy | 100 | N/A |
| Morrison School | 67 | 100 |

3.3.1.3 Pupil enjoyment of mapwork

Prior to the distribution of free maps, each Geography teacher consulted was asked to indicate how well they felt that their Key Stage 3 pupils enjoyed mapwork. Table 3.10 shows the proportion of teachers at each pilot school who felt that their Key Stage 3 pupils enjoyed mapwork, prior to the launch of the *Free Maps* scheme. In all but one of the pilot schools, the majority of Geography teachers were certain that their pupils did not enjoy mapwork. The only exception to this pattern was, again, Rugby School.

Table 3.10 Proportion of Geography teachers in pilot schools who felt that their Key Stage 3 pupils enjoyed mapwork, prior to the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS WHO FEEL THAT KS3 PUPILS ENJOY MAPWORK |
|-------------------------|---|
| Crown Hills College | 10 |
| North Leamington School | 33 |
| William Parker School | 40 |
| Rugby School | 100 |
| Lenzie Academy | 33 |
| Morrison School | 25 |

After the distribution of free maps, geography teachers were asked whether pupils were enjoying mapwork more, now that they had their own Ordnance Survey map. Table 3.11 shows the proportion of

teachers at each pilot school who felt that their Key Stage 3 pupils were enjoying mapwork 'a lot more', following the distribution of free maps. In all but one of the pilot schools, the majority of Geography teachers were certain that their pupils enjoyed mapwork 'a lot more' following the launch of the *Free Maps* scheme. Significantly, this increase in enjoyment was most dramatic in those schools where extant map usage and resources were most limited prior to the *Free Maps* scheme (see sections 3.1.5 and 3.3.1.1), and which were typical of the catchments with the 'poorest' mapping skills among young people (see section 3.1.3). The only exception to this pattern was Rugby School, where teachers report 'no change' to pupils' (reportedly already high) enjoyment of mapwork.

Table 3.11 Proportion of Geography teachers in pilot schools who felt that Key Stage 3 pupils enjoyed maps 'a lot more' following the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF TEACHERS WHO FEEL THAT KS3 PUPILS UNDERSTAND MAPWORK BETTER | |
|-------------------------|---|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 100 | 100 |
| North Leamington School | 100 | 75 |
| William Parker School | 50 | 75 |
| Rugby School | 0 | 0 |
| Lenzie Academy | 67 | N/A |
| Morrleston School | 80 | 67 |

3.3.1.4 Map purchases

Prior to the distribution of free maps, geography teachers at each pilot school were asked to state whether they had purchased any Ordnance Survey maps in the preceding twelve months. This audit was then repeated one month, and one year after free maps were distributed to pupils at the pilot schools. Table 3.12 summarises these audits of map purchases. Prior to the launch of the *Free Maps* scheme, only two of the pilot schools had purchased Ordnance Survey maps in the preceding twelve months (and these were the two pilot schools with the most impressive existing mapping resources, and where mapwork was most extensively embedded in the Key Stage 3 curriculum: see sections 3.1.5 and 3.3.1.1). The launch of the Free Maps scheme evidently acted as a catalyst to further map purchases by the pilot schools. One month after the distribution of free maps (that is, just two months after the first audit of map purchases), all but one of the pilot schools had

purchased Ordnance Survey maps over and above their allocation of free maps. One year after the launch of the scheme, all of the pilot schools had made further purchases of Ordnance Survey maps.

Table 3.12 Map purchases by pilot schools, before and after the launch of the *Free Maps* scheme

| SCHOOL | HAS THE SCHOOL PURCHASED NEW OS MAPS IN THE LAST 12 MONTHS? | | |
|-------------------------|---|--------------------------------|-------------------------------|
| | Prior to scheme | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | No | Yes | Yes |
| North Leamington School | No | Yes | Yes |
| William Parker School | Yes | Yes | Yes |
| Rugby School | Yes | Yes | Yes |
| Lenzie Academy | No | Yes | Yes |
| Morrison School | No | No | Yes |

3.3.2 Qualitative data

CCY's focus groups with geography teachers from the pilot schools, in 2005, provided some deeper reflections and insights into these teachers' experiences of the *Free Maps* scheme. The following themes were significant in these focus groups.

First, teachers described their experiences of the logistics and organisation of the Free Maps scheme. None of the teachers consulted in the pilot schools had experienced any major problems with the organisation of scheme.

"There were no problems at all". Teacher, Crown Hills School.

"It's running really well. Timing is the only issue I have, everything else I am pleased with". Teacher, William Parker School.

"I don't think there is any more organisation needed...but it sometimes depends on what is on in the school at that particular time". Teacher, Morrison School.

Second, teachers talked enthusiastically about the various ways in which the maps had been used in a wide ranges ways, particularly

in classroom exercises, homework activities, and fieldwork, as well as 'fun activities'

"We got them to do like a worksheet for use on the map which told a story which was quite good...the sheet that came with it...I set that as...a voluntary homework and gave them all gold stamps if they did it... . But I know they have really enjoyed it". Teacher, Crown Hills School.

"I have used them quite recently actually in geography doing land use models, that kind of thing. Got them to produce one for Leicester". Teacher, Crown Hills School.

"In Year 8 we have a landforms unit. Then that will mean we would look at Swansea and Gower so there is an exercise where they have a small base map of Gower so they would use the big map to put all the [symbols] and bays on and perhaps some lines of communication. They enjoyed that. We use it for river work, when out and about". Teacher, Morrington School.

To start off with, we don't give them an Ordnance Survey map...we give them things like a street map of Leamington Spa first of all and then we move onto the map to discuss things like scale...and then really we use the O.S. maps to sort of bring in all of the map skills they have been looking at". Teacher, North Leamington School.

"We did a local study of a new shopping area and a housing estate and we used them for that". Teacher, Crown Hills School.

"So we try to take them out, they do fieldwork in Year 8...we take them to do coastal stuff, and to Swansea. Then in Year 10 they have fieldwork...so at least then they do look at the map and we look at Gower from the point of view of coastal platforms. So you know it was more useful for me to have maps like that". Teacher, Morrington School.

"We have used them for Duke of Edinburgh". Teacher, William Parker School.

Third, all of the teachers consulted in pilot schools spoke about their pupils' enthusiasm for the *Free Maps* scheme, and how it had fostered a new, a positive attitude towards maps and mapping.

"They do get excited when they are told they are going to be given a map and they can keep it. I think it does allow them to enjoy it more because they enjoy finding their home and their school, and they go, oh miss, I have found my own home over here and things like that". Teacher, North Leamington School.

"It is something different isn't it?... The Year 7s...really enjoyed those lessons which is obviously good because it makes them feel good about themselves". Teacher, Crown Hills School.

"It is a present, a lot of our children, some of them don't get presents, some have kept them in very safe place". Teacher, Crown Hills School.

"They love it don't they? It's free and it's for them to keep and they can't wait to have them...I have one boy in my form who has been nagging me and nagging me, and nagging me for ages about his free map. He got it today". Teacher, William Parker School.

"When you give them the map it does give them a bit of a buzz". Teacher, William Parker School.

"The first thing they do is look for their house ...the initial buzz is quite outstanding. Even just identifying the school...here's my house...they get enthusiastic about it". Teacher, Morriston School.

"I think they are all still pretty enthusiastic, I mean they want to bring them in and work with them". Teacher, Crown Hills School.

Fourth, all of the teachers consulted in pilot schools were certain that the provision of maps had tangibly improved both pupils' attitudes to map work and their overall mapping skills.

"I think we are doing the same amount of map work, it just makes it far more relevant for the kids". Teacher, North Leamington School.

"I think it must do yes...using an area that is relevant to them, they can find their home and you can say well give a six figure grid reference for it. So because we practice all of the skills using the map it definitely must enhance their skills. So that impacts on their general understanding of things as well". Teacher, North Leamington School.

"I think they learn better, they learn with references better because we are using the map". Teacher, William Parker School.

"They definitely become more interested in geography for me. Even when I got the maps out with the Year 10s, it was the first time we had done it for a little while, definitely engaged throughout the whole lesson, really interested and wanting to

do it again next time...they really enjoy it". Teacher, Crown Hills School.

"I think they can relate to it and when you are doing practical things...specifically in geography I think it's very important they can actually relate to what they're doing". Teacher, Crown Hills School.

Sixth, teachers were keen to make clear that the provision of a free resource for all of their pupils was seen as an immensely valuable and beneficial, especially as none of the schools could afford to buy maps in such quantity.

"We couldn't buy them for the kids if you weren't giving them to us. They would probably never see one". Teacher, Crown Hills School.

"Oh you couldn't do a lot of the kinds of mapwork without the free maps really". Teacher, Crown Hills School.

"I say [the maps are] very useful because it is much more relevant to have the local O.S. map than have a map for somewhere else. It's also good because each student has their own rather than having to share or get ones out of the stock cupboard. It's nice to have a 1:25,000 map rather than a 1:50,000. I think it's easier for them to see things on there...they can just about identify their street or their house in some cases". Teacher, William Parker School.

"Having access to the free maps opens up new sorts of homework. That's the main thing". Teacher, William Parker School.

"It's certainly aided teaching in the work we do because the maps that we had before we had them a long time and they were obviously defaced...it's certainly allowed us to have newer resources with the kids, the kids like it, and as I say the better ones do like to bring the map in. ...You can't always use it but the interest is there from their point of view". Teacher, Morriston School.

"I think it is a good scheme. It's great the kids can have that and I hope it continues. It's allowed me to have sets of maps of the area which I would not have been able to buy". Teacher, Morriston School.

Finally, teachers suggested several ways in which the *Free Maps* scheme could be developed. These included the following.

- Providing accompanying notes with the maps that suggested a range of map-based activities:

"It is probably is a matter of perhaps providing us with ideas and activities. We did get together...[with] X School and we met other geography teachers and we were trying to share ideas. Sometimes when you are busy teaching you haven't got time to sort your resources out so perhaps any sort of practical ideas that could be applied to any of the maps anywhere in the country would be very helpful". Teacher, North Leamington School.

- Providing at least one laminated map for each school and an aerial photograph of the same area:

"We use mine as a wall display...that would be something that would be really appreciated if they sent us a laminated one [for displays]... . Also, I don't know if they provide aerial photos?" Teacher, Crown Hills School.

- Providing map extracts for children with special educational needs:

"I don't think a lot of special educational needs children would be able to handle the size of it, it would need to be broken down a bit into smaller units...if it was just the home area, just blown up even bigger...and do simple map reading, you know, symbols, points of the compass and do a little bit of measuring the distance perhaps". Teacher, Morriston School.

- Providing either resources with suggestions for using the free maps innovatively, or workshops for the sharing of good practice in mapwork:

"It is probably is a matter of perhaps providing us with ideas and activities. We did get together...[with] X School and we met other geography teachers and we were trying to share ideas.. But the main thing is we need ideas. Sometimes when you are busy teaching you haven't got time to sort your resources out so perhaps any sort of practical ideas that could be applied to any of the maps anywhere in the country would be very helpful, or some way of getting people together to share ideas". Teacher, Crown Hills School.

- Delivering the free maps to school at the very beginning of Year 7:

"If there is any way in which the maps could be with us at the beginning of Year 7, that would have a much greater impact. The year when we did...it had a much bigger impact on them and those students felt much more positive about maps because they arrived in their new school and they were given a new map in their first lesson...it was a lovely atmosphere". Teacher, William Parker School.

Finally, the main critical message to emerge from focus groups with teachers at pilot schools was, at present, the momentum and impact of the Free Maps scheme is lost by the end of Key Stage 3, because of a shortage of opportunities to embed maps in the Geography curriculum (coupled with a dwindling uptake of Geography GCSE)

"The consequence of the National Curriculum though is that things happen there in Year 7 and then they don't happen again. It means they forget all about it!". Teacher, Crown Hills School.

"It's great...a Government department giving out these free resources but does the curriculum allow them to be used to their maximum potential?" Teacher, Morriston School.

| |
|---|
| 3.4 Findings from research with parents/carers of pilot cohort of pupils, 2001-2002 |
|---|

CCY's research with parents/carers of pupils from the pilot cohort, across the six pilot schools, has gathered quantitative information regarding the impacts and running of the *Free Maps for 11-Year-Olds* scheme, in practice, from the perspective of parents/carers. Key findings from this research, to date, are as follows. CCY conducted questionnaire surveys of parents/carers in October 2001 (one month after the launch of the *Free Maps* scheme in the pilot schools) and September 2002 (one year after the distribution of free maps). In these surveys, parents/carers were asked to comment upon their engagement with the *Free Maps* scheme. Findings from these surveys afford some insights into the impacts of the scheme, in a variety of 'home' environments.

3.4.1 Awareness of Ordnance Survey

In the initial survey of parents/carers of pupils from the pilot schools, parents/carers were asked whether they had been aware of what Ordnance Survey is/does prior to the launch of the *Free Maps* scheme. Table 3.13 shows the proportion of parents/carers who had been aware of the role of Ordnance survey prior to the launch of the scheme. With the exception of Rugby School, the majority of parents/carers of pupils from each of the pilot schools had been uncertain of the role of Ordnance Survey, prior to the launch of the *Free Maps* scheme.

Table 3.13 Proportion of parents/carers of pilot cohort pupils who were aware of the role of Ordnance Survey, prior to the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF PARENTS/CARERS WHO KNEW WHAT OS IS/DOES |
|-------------------------|---|
| Crown Hills College | 10 |
| North Leamington School | 33 |
| William Parker School | 40 |
| Rugby School | 100 |
| Lenzie Academy | 33 |
| Morrison School | 25 |

After the distribution of free maps, parents/carers were asked whether their understanding of the Ordnance Survey's role had improved via their son's/daughter's participation in the *Free Maps* scheme. Table 3.14 shows the proportion of parents/carers at each pilot school who felt that their understanding had improved via the scheme. There was virtually unanimous agreement amongst parents/carers that understanding had improved in the light of the free Maps scheme. Significantly, the increase in understanding was most dramatic amongst parents/carers of pupils at those schools which were typical of the catchments with the 'poorest' mapping skills among young people (see section 3.1.3).

Table 3.14 Proportion of parents/carers of pilot cohort pupils who felt that their understanding of Ordnance Survey had improved, following the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF PARENTS/CARERS WHO UNDERSTAND OS BETTER | |
|-------------------------|---|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 96 | 91 |
| North Leamington School | 98 | 94 |
| William Parker School | 90 | 96 |
| Rugby School | 100 | 100 |
| Lenzie Academy | 97 | 92 |
| Morrison School | 93 | 91 |

3.4.2 Engagement with free maps

After the distribution of free maps, parents/carers were asked whether they had looked, and used, their son's/daughter's free

map. Table 3.15 shows the proportion of parents/carers who had looked at their son's/daughter's free map in the first month, and first year, of the *Free Maps* scheme. Virtually all parents/carers looked at the free maps during the first month of the scheme, and over four-fifths of parents/carers at each pilot school looked at the free maps in the subsequent year.

Table 3.15 Proportion of parents/carers of pilot cohort pupils who looked at their son's/daughter's free map

| SCHOOL | PERCENTAGE OF PARENTS/CARERS WHO HAD LOOKED AT FREE MAPS | |
|-------------------------|--|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 96 | 87 |
| North Leamington School | 98 | 81 |
| William Parker School | 98 | 92 |
| Rugby School | 100 | 91 |
| Lenzie Academy | 97 | 86 |
| Morrison School | 98 | 96 |

Parents/carers were also asked whether they had found the free maps useful since the launch of the *Free Maps* scheme. Table 3.16 shows the proportion of parents/carers who had found the free maps useful, one month, and one year, on from the distribution of free maps. At least one-in-three parents/carers from each of the pilot schools had found the maps useful, just one month after their son/daughter had received the map. Significantly, at each school, the proportion of parents/carers who found the maps useful increased over time: at two-fifths of parents/carers had found the maps useful, one year after receipt of the map.

Table 3.16 Proportion of parents/carers of pilot cohort pupils who found their son's/daughter's free map useful

| SCHOOL | PERCENTAGE OF PARENTS/CARERS WHO FOUND FREE MAPS USEFUL | |
|-------------------------|---|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 38 | 45 |
| North Leamington School | 33 | 56 |
| William Parker School | 39 | 43 |
| Rugby School | 56 | 55 |
| Lenzie Academy | 39 | 63 |
| Morrison School | 32 | 43 |

Parents/carers were asked to outline how they had found the free maps useful. Responses are shown in Table 3.17.

Table 3.17 Ways in which parents/carers found free maps useful, 2001-2002

| PURPOSE | PERCENTAGE ⁷ OF PARENTS/CARERS WHO USED MAPS FOR THIS PURPOSE |
|--------------------------|--|
| To find a place | 63 |
| Out of interest | 57 |
| To get to know an area | 25 |
| Planning local journeys | 24 |
| In a car | 20 |
| Visiting local sights | 11 |
| On a hike/country walk | 11 |
| Planning longer journeys | 7 |
| When cycling | 5 |

3.4.3 Likelihood of purchasing maps

In the initial survey of parents/carers of pupils from the pilot schools, parents/carers were asked whether they had ever purchased an Ordnance Survey map prior to the launch of the *Free Maps* scheme. Table 3.18 shows the proportion of parents/carers who had purchased Ordnance Survey maps prior to the launch of the scheme. With the exception of Rugby School, the majority of parents/carers of pupils from each of the pilot schools had never previously purchased an Ordnance Survey map.

⁷ Figures in this column are expressed as a proportion of *those parents/carers who found the free maps useful*. Parents/carers could indicate that they used free maps in multiple ways: hence, the percentage column adds up to more than 100.

Table 3.18 Proportion of parents/carers of pilot cohort pupils who had purchased an Ordnance Survey map prior to the launch of the *Free Maps* scheme

| SCHOOL | PERCENTAGE OF PARENTS/CARERS WHO HAD PURCHASED MAPS |
|-------------------------|---|
| Crown Hills College | 5 |
| North Leamington School | 18 |
| William Parker School | 14 |
| Rugby School | 67 |
| Lenzie Academy | 20 |
| Morrison School | 9 |

After the distribution of free maps, parents/carers were asked whether they intended to purchase an Ordnance Survey map in the next twelve months. Table 3.19 shows the proportion of parents/carers who declared an intention to purchase an Ordnance Survey map, one month, and one year, after the launch of the *Free Maps* scheme. At each of the pilot schools, including those where fewer than one-in-ten parents had ever purchased an Ordnance Survey map, at least two-fifths of the parents/carers consulted declared an intention to purchase Ordnance Survey maps in the near future, following receipt of free maps.

Table 3.19 Proportion of parents/carers of pilot cohort pupils who intended to purchase an Ordnance Survey map in the next twelve months

| SCHOOL | PERCENTAGE OF PARENTS/CARERS WHO INTENDED TO PURCHASE MAPS | |
|-------------------------|--|-------------------------------|
| | 1 month after maps distributed | 1 year after maps distributed |
| Crown Hills College | 64 | 50 |
| North Leamington School | 44 | 39 |
| William Parker School | 42 | 44 |
| Rugby School | 67 | 65 |
| Lenzie Academy | 55 | 39 |
| Morrison School | 53 | 42 |

4 FINDINGS FROM NATIONAL SURVEYS OF PARTICIPANTS IN THE *FREE MAPS* SCHEME, 2001-2006

This section presents findings from CCY's national surveys of participants in the *Free Maps for 11-Year-Olds*, between 2001-2006. It is structured in the following way.

- 4.1 Findings from national surveys of Year 7 pupils, 2003-2004
- 4.2 Findings from national surveys of Geography teachers, 2000-2006
 - Findings from national surveys of Geography teachers in participating schools, 2000-2006
 - Quantitative information
 - Qualitative information
 - Findings from survey of Geography teachers in participating schools in Scotland, 2005
 - Quantitative information
 - Qualitative information
 - Findings from national survey of Geography teachers in non-participating schools, 2005
 - Quantitative information
 - Qualitative information
- 4.3 Findings from national survey of parents/carers, 2003

4.1 Findings from national surveys of Year 7 pupils, 2003-2004

CCY's national questionnaire surveys of Year 7 pupils, recently in receipt of a free map, have gathered quantitative information regarding the attitudes and practices of young people in relation to the *Free Maps for 11-Year-Olds* scheme. This information can be used to verify and reinforce understanding of the patterns described in relation to the pilot cohort of pupils (see Section 3.2). Key findings from national surveys conducted to date are as follows.

4.1.2 Usage of free maps

In each of the national surveys, conducted within one month of the distribution of free maps, Year 7 pupils were asked 'how often have you used your map since receiving it?' Usage of free maps reported in each national survey is shown in Table 4.1. Findings from the two surveys are consistent, confirming a significant level of usage of free maps among recipients, at least in the months following the distribution of maps. In both national cohorts, between 80-95 per cent of Year 7 pupils used their map at least once within one month of receipt. In both cohorts, around two-fifths of Year pupils used their free map, on average, more than once per week in the first month of ownership.

Table 4.1 Number of times national samples of Year 7 pupils had used their free maps, within one month of receipt, 2003 and 2004

| NUMBER OF TIMES MAP WAS USED | PERCENTAGE OF PUPILS WHO USED MAPS | |
|------------------------------|------------------------------------|-----------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| >10 times | 10 | 9 |
| 5-10 times | 12 | 11 |
| 4-5 times | 21 | 15 |
| 2-3 times | 35 | 28 |
| Once | 17 | 20 |
| None | 5 | 17 |
| | | |

Each national cohort was asked to indicate how they had used their free map during the first month of ownership. Responses are shown in Table 4.2, and present a consistent picture. Clearly, just one month on from receiving free maps, Year 7 pupils found their maps useful for a wide range of purposes: for classroom work; to 'find a place'; for homework; for car journeys; 'to get to know an area'; to plan journeys; whilst hiking or cycling; or simply 'out of interest'.

Table 4.2 Ways in which national samples of Year 7 pupils found free maps useful, 2003 and 2004

| PURPOSE | PERCENTAGE OF PUPILS WHO USED MAPS FOR THIS PURPOSE | |
|-------------------------|---|-----------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| Classroom exercises | 63 | 61 |
| To find a place | 54 | 32 |
| Out of interest | 42 | 19 |
| Homework | 41 | 40 |
| In a car | 31 | 15 |
| To get to know an area | 20 | 10 |
| Planning local journeys | 16 | 4 |
| On a hike/country walk | 12 | 6 |
| Visiting local sights | 10 | 4 |
| When cycling | 9 | 6 |

Moreover, each national cohort of Year 7 pupils was asked to indicate who, apart from themselves, had used their free map. Responses are shown in Table 4.3, and present a consistent picture. Evidently, free maps given to these Year 7 pupils were, often, not just used by the recipients alone. In each survey, it was reported that around one-in-three maps had been used by mothers and/or fathers, and around one-in-four maps had been shown to friends of recipients.

Table 4.3 Usage of free maps by friends/relatives of national samples of Year 7 pupils, 2003 and 2004

| USER | PERCENTAGE OF PUPILS REPORTING USAGE BY THIS PERSON | |
|---------|---|-----------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| Mother | 29 | 33 |
| Father | 29 | 32 |
| Friend | 25 | 22 |
| Brother | 10 | 8 |
| Sister | 8 | 6 |

4.1.3 Understanding of maps

In each of the national surveys Year 7 pupils were asked whether owning a new map had helped them to better understand maps. Responses are shown in Table 4.4. Findings from the two surveys are consistent, confirming that, at least in the months following the distribution of free maps, the vast majority of Year 7 pupils are

certain that their understanding of maps has been tangibly boosted by ownership of a new map. In both national cohorts, around nine-tenths of Year 7 pupils stated that their understanding of maps had been helped, to some extent, by ownership of a new map. In each survey, between 40-50 per cent of Year 7 pupils stated that their understanding of maps had been improved 'a lot' or 'quite a lot' as a direct result of the *Free Maps* scheme.

Table 4.4 Extent to which free maps help national samples of Year 7 pupils to understand maps, 2003 and 2004

| EXTENT TO WHICH MAP OWNERSHIP HELPS | PERCENTAGE OF PUPILS REPORTING THIS LEVEL OF HELP | |
|-------------------------------------|---|--------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| Helps a lot | 20 | 13 |
| Helps quite a lot | 27 | 27 |
| Helps a bit | 40 | 46 |
| Not much help | 9 | 9 |
| No help at all | 4 | 6 |

4.1.4 Enjoyment of maps

In each of the national surveys Year 7 pupils were asked whether owning a new map had helped them to enjoy maps. Responses are shown in Table 4.5. Findings from the two surveys are consistent, confirming that, at least in the months following the distribution of free maps, the majority of Year 7 pupils state that their enjoyment of maps has been noticeably boosted by ownership of a new map. In both national cohorts, around two-thirds of Year 7 pupils stated that their enjoyment of maps had been helped, to some extent, by ownership of a new map. In each survey, between 40-50 per cent of Year 7 pupils stated that their enjoyment of maps had been improved 'a lot' or 'quite a lot' as a direct result of the *Free Maps* scheme.

Table 4.5 Extent to which free maps help national samples of Year 7 pupils to enjoy maps, 2003 and 2004

| EXTENT TO WHICH MAP OWNERSHIP HELPS | PERCENTAGE OF PUPILS REPORTING THIS LEVEL OF HELP | |
|-------------------------------------|---|--------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| Helps a lot | 14 | 5 |
| Helps quite a lot | 23 | 20 |
| Helps a bit | 33 | 36 |
| Not much help | 18 | 22 |
| No help at all | 12 | 11 |

4.1.4 Perceived importance of maps

In each of the national surveys Year 7 pupils were asked whether owning a new map had changed their perception of the importance of maps. Responses are shown in Table 4.6. Findings from the two surveys are consistent, confirming that, at least in the months following the distribution of free maps, the vast majority of Year 7 pupils state that their perception of maps has changed. In both national cohorts, more than nine-tenths of Year 7 pupils stated that ownership of a new map had helped them to recognise the importance of maps. In each survey, between around four-fifths of Year 7 pupils stated that their understanding of the importance of maps had been improved 'a lot' or 'quite a lot' as a direct result of the *Free Maps* scheme.

Table 4.6 Extent to which free maps help national samples of Year 7 pupils to understand the importance of maps, 2003 and 2004

| EXTENT TO WHICH MAP OWNERSHIP HELPS | PERCENTAGE OF PUPILS REPORTING THIS LEVEL OF HELP | |
|-------------------------------------|---|-----------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| Helps a lot | 36 | 26 |
| Helps quite a lot | 44 | 49 |
| Helps a bit | 14 | 18 |
| Not much help | 4 | 3 |
| No help at all | 2 | 4 |

4.1.5 Desire to purchase more maps

In each of the national surveys Year 7 pupils were asked whether receiving a new map had made them want to acquire more maps. Responses are shown in Table 4.7, and present a consistent picture. In both national cohorts, around one-half of Year 7 pupils stated that, in the light of the *Free Maps* scheme, they would like to purchase another map. A further one-in-three pupils from each national cohort answered that they would 'perhaps' like to acquire another map.

Table 4.7 Extent to which national samples of Year 7 pupils would like to buy another map, 2003 and 2004

| EXTENT TO WHICH PUPILS WOULD LIKE TO BUY ANOTHER MAP | PERCENTAGE OF PUPILS | |
|--|-----------------------|-----------------------|
| | 2003 Year 7 cohort | 2004 Year 7 cohort |
| Yes | 53 | 48 |
| Perhaps | 33 | 32 |
| No | 14 | 20 |

4.2 Findings from national surveys of Geography teachers, 2000-2006

CCY's national surveys of Geography teachers have gathered quantitative and qualitative information regarding the process and outcomes of the *Free Maps for 11-Year-Olds* scheme in practice, in different school environments. This information can be used to verify and reinforce understanding of the patterns, outcomes and issues described by Geography teachers from pilot schools (see Section 3.3). Key findings from national surveys conducted to date are as follows. Findings are presented in three distinct sections: Section 4.2.1 presents quantitative and qualitative findings from surveys of Geography teachers in schools participating in the *Free Maps* scheme in the UK, 2000-2006; Section 4.2.2 presents quantitative and qualitative findings from a survey of Geography teachers in Scottish schools participating in the *Free Maps* scheme, 2005; Section 4.2.3 presents quantitative and qualitative findings from a survey of schools not participating in the *Free Maps* scheme in the UK, 2005.

4.2.1 Findings from national surveys of Geography teachers in participating schools, 2000-2006

Key quantitative and qualitative findings from CCY's UK-wide surveys of Geography teachers in schools participating in the *Free Maps for 11-Year-Olds* scheme, conducted in 2002, 2004 and 2005, were as follows. Sections 4.2.1.1 – 4.2.1.6 present quantitative findings from national questionnaire surveys of Geography teachers conducted in 2002, 2004 and 2005. Sections 4.2.1.7 – 4.2.1.11 present qualitative data from in-depth interviews with Geography teachers in participating schools across the UK.

4.2.1.1 Usage of mapping resources in curriculum

A key aim of the national questionnaire surveys of geography teachers was to audit the use of mapping resources in curricular activities at Key Stage 3. Geography teachers were asked to indicate the number of times different types of mapping resources were used at Key Stage 3. Mapping resources used by the 1482 teachers consulted in 2004 and 2005 are shown in Table 4.8. Evidently, paper Ordnance Survey maps are *the* key mapping resource used by Geography teachers at Key Stage 3. Virtually all (98%) of the Geography teachers consulted in CCY's national surveys used Ordnance Survey paper maps at least once in delivering the Key Stage 3 curriculum, and more than four-fifths of teachers used them on more than five occasions. Evidently, many Geography teachers do make use of a range of other mapping resources, but fewer than half of the teachers consulted made significant use of any of the listed alternative resources in their teaching. To date, UK Geography teachers report relatively limited

usage of online and electronic mapping resources, such as MapZone, OS Digital Data, Mapping CD-Roms, and geographical websites, with 50 per cent or fewer of the teachers consulted having used these resources.

Table 4.8 Usage of mapping resources by a national sample of Geography teachers at Key Stage 3, 2004-2005

| OCCASIONS USED | OS PAPER MAPS | OS WEBSITE | MapZone WEBSITE | GA WEBSITE | RGS WEBSITE | OS DIGITAL DATA | MAPPING CD-ROMS |
|----------------|---------------|------------|-----------------|------------|-------------|-----------------|-----------------|
| Not used | 2 | 32 | 42 | 45 | 58 | 80 | 51 |
| 1-2 | 5 | 28 | 24 | 24 | 20 | 10 | 20 |
| 3-4 | 11 | 19 | 15 | 15 | 11 | 5 | 13 |
| 5-10 | 41 | 12 | 12 | 11 | 8 | 3 | 8 |
| >10 | 42 | 8 | 7 | 5 | 3 | 2 | 7 |

4.2.1.2 Timing of mapwork in curriculum

A key aim of the national surveys of geography teachers was to audit the timing of mapwork in the Year 7 curriculum and, with this in mind, to monitor teachers' preferred time for receiving their quota of free maps. Geography teachers were asked to indicate when mapwork was taught in Year 7 at their schools. The timing of mapwork in the Year 7 curriculum in the 1482 schools surveyed in 2004 and 2005 is shown in Table 4.9. Teachers responses present a consistent picture, with around three-quarters of all schools surveyed teaching mapwork during the Autumn term of Year 7. The remainder of schools teach mapwork at various points later on in Spring and Summer terms, but there is no systematic pattern to these timings (for example, there is no relationship between the timing of mapwork, and school location, school type, or school catchment area).

Table 4.9 Timing of mapwork in Year 7 curriculum, in a national sample of schools, 2004 and 2005

| TIME OF YEAR | PERCENTAGE OF SCHOOLS WHERE MAPWORK IS TAUGHT AT THIS TIME | |
|-------------------------------|--|------|
| | 2004 | 2005 |
| First half of Autumn Term | 51 | 42 |
| Second half of Autumn Term | 24 | 29 |
| First half of the Spring Term | 9 | 10 |
| Second half of Spring Term | 4 | 4 |
| First half of Summer Term | 5 | 7 |
| Second half of Summer Term | 2 | 2 |
| Don't know | 5 | 6 |

In each national survey, teachers were asked to indicate when they would prefer to receive their school's quota of free maps. The preferences of the 1482 teachers surveyed are summarised in Table 4.10. For logistical reasons, and to coincide with the timetabling of mapwork lessons, between 80-90 per cent of the teachers surveyed state that the Autumn term of Year 7 is their preferred time to receive free maps, with a strong majority preferring the first half of this term. A remainder of schools would prefer to receive maps at various points later on in Spring and Summer terms, but there is no systematic pattern to these timings (for example, there is no relationship between preferred timing of receipt, and school location, school type, or school catchment area).

Table 4.10 The preferred time to receive free maps of a national sample of Geography teachers, 2004 and 2005

| TIME OF YEAR | PERCENTAGE OF TEACHERS PREFERRING THIS TIME | |
|-------------------------------|---|------|
| | 2004 | 2005 |
| First half of Autumn Term | 76 | 69 |
| Second half of Autumn Term | 13 | 14 |
| First half of the Spring Term | 3 | 5 |
| Second half of Spring Term | 1 | 2 |
| First half of Summer Term | 1 | 2 |
| Second half of Summer Term | 2 | 3 |
| Don't know | 4 | 5 |

4.2.1.3 Operation of *Free Maps* scheme in practice

Teachers were asked a series of questions designed to evaluate the operation of the Free Maps scheme in practice.

First, teachers were asked how they first came to hear about the *Free Maps* scheme. Responses are shown in Table 4.11. In both surveys, over four-fifths of participating teachers indicated that Ordnance Survey's Pre-registration and Registration information had successfully alerted them to the Free Maps. The remainder of the sample of teachers cited a range of other sources of information, with word-of-mouth, within and between schools somewhat significant in both surveys. Evidently, the *Free Maps* website is an increasingly significant source of information: it was mentioned as a source of initial information by ten times more teachers in 2005 than in 2004.

Table 4.11 Initial sources of information about the *Free Maps* scheme for a national sample of Geography teachers, 2004 and 2005

| SOURCE OF INITIAL INFORMATION | PER CENT | |
|-------------------------------|----------|------|
| | 2004 | 2005 |
| Pre-registration information | 70 | 61 |
| Registration invitation | 21 | 21 |
| Website | 1 | 10 |
| Newspaper | 2 | 1 |
| Radio | 1 | 0 |
| Television | 0 | 1 |
| Colleague in school | 3 | 5 |
| Colleague from other school | 2 | 1 |

Second, teachers were asked how easy they found the process of registering for the *Free Maps* scheme. Responses are shown in Table 4.12, and present a consistent picture. In each survey, more than nine-tenths of the teachers surveyed indicated that they had found it 'easy' or 'very easy' to register for the scheme. However, a small but significant percentage – just under 10 per cent – of teachers do report some difficulties in registering.

Table 4.12 The experience of registering for the *Free Maps* scheme for a national sample of Geography teachers, 2004 and 2005

| EASE OF REGISTRATION | PER CENT | |
|----------------------|----------|------|
| | 2004 | 2005 |
| Very easy | 55 | 57 |
| Easy | 37 | 39 |
| Not very easy | 4 | 2 |
| Not easy | 2 | 0 |
| Difficult | 2 | 2 |

Third, teachers were asked whether they had fully read the terms and conditions of the *Free Maps* scheme. Responses are shown in Table 4.13. The vast majority of teachers consulted claimed that they had fully read the terms and conditions of the scheme, but in each survey, more than one-in-ten participating teachers owned up to not having read the terms and conditions. These teachers reasoned that they 'did not have enough time' (5%), 'did not feel it was necessary' (4%), or felt that the wording was too complicated (2%).

Table 4.12 Extent to which a national sample of Geography teachers fully read the terms and conditions of the *Free Maps* scheme, 2004 and 2005

| READ TERMS AND CONDITIONS? | PER CENT | |
|-------------------------------|----------|------|
| | 2004 | 2005 |
| Yes | 84 | 87 |
| No | 16 | 13 |

Fourth, teachers were asked about the procedure of distributing their school's quota of free maps. Specifically, teachers were asked how soon they distributed maps after receiving them. Responses are shown in Table 4.13, and present a consistent picture. Around four-fifths of all teachers consulted distributed maps within four weeks of receipt, with more than half of the sample distributing maps within two weeks of receipt. In both surveys, a rogue proportion of teachers – around one-in-twenty – admitted that they had not given out the free maps they had received. These teachers claimed that they 'hadn't had enough time' (4%), or that they 'never planned to give them to the pupils' (4%).

Table 4.13 Timing of distribution of free maps by a national sample of Geography teachers, 2004 and 2005

| TIMING OF DISTRIBUTION IN RELATION TO RECEIPT OF MAPS | PER CENT | |
|--|----------|------|
| | 2004 | 2005 |
| Less than one week after | 24 | 28 |
| Between 1 and 2 weeks after | 32 | 30 |
| Between 2 and 3 weeks after | 12 | 15 |
| Between 3 and 4 weeks after | 11 | 10 |
| More than 4 weeks after | 15 | 13 |
| Not given out | 7 | 4 |

Fifth, teachers were asked about the usefulness of the various supporting materials accompanying each school's delivery of free maps. Responses are shown in Table 4.14, and present a consistent picture. In each survey, over nine-tenths of teachers surveyed indicated that they had found the materials accompanying free maps 'helpful' or 'very helpful'. In each survey, one-in-twenty (5%) teachers admitted that they had not read the accompanying materials at all. Only a very small minority of teachers consulted (between 1-3 per cent) opined that the accompanying materials were 'not helpful'.

Table 4.14 Opinion of the usefulness of materials accompanying free maps, expressed by a national sample of Geography teachers, 2004 and 2005

| OPINION OF MATERIALS | PER CENT | |
|----------------------|----------|------|
| | 2004 | 2005 |
| Very helpful | 33 | 33 |
| Helpful | 59 | 61 |
| Not helpful | 3 | 1 |
| Have not read it | 5 | 5 |

4.2.1.4 Usage of free maps

A key aim of the national surveys of teachers was to audit the ways in which free maps had been put to use by teachers. In questionnaire surveys in 2002, 2004 and 2005, teachers were asked to indicate how they were using the free maps in the current academic year, with Year 7 pupils. Responses from the 1988 teachers consulted in these surveys are shown in Table 4.15. These findings confirm a significant level of usage of free maps in curricular activities during Year 7. In each survey, free maps were being used for classroom exercises in more than nine-tenths of the schools surveyed, and for homework activities in around three-quarters of schools. The free maps were also evidently well-used in project work, fieldwork and extracurricular activities.

Table 4.15 Usage of free maps with Year 7 pupils in a national sample of schools, 2002, 2004 and 2005

| PURPOSE | PER CENT | | |
|----------------------------|----------|------|------|
| | 2002 | 2004 | 2005 |
| Classroom exercises | 95 | 94 | 95 |
| Homework | 69 | 74 | 75 |
| Project work | 49 | 56 | 58 |
| Fieldwork exercises | 36 | 33 | 29 |
| Extracurricular activities | 25 | 22 | 23 |

4.2.1.5 Reported outcomes of *Free Maps* scheme

The national questionnaire surveys of geography teachers were intended to evaluate the *Free Maps* scheme in terms of its outcomes. Teachers were asked to report on the impacts of the scheme in a number of senses.

First, in each survey, teachers were asked to indicate the extent to which they felt the Free Maps scheme had supported the

development of Geography teaching and learning in their school. Responses are shown in Table 4.16, and indicate an overwhelming sense that the *Free Maps* scheme has significantly fostered the teaching and learning of Geography in schools. In each survey, it was the experience of at least 98 per cent of the teachers surveyed that the scheme had been 'beneficial' or 'very beneficial' to Geography teaching and learning in their school.

Table 4.16 The impact of the *Free Maps* scheme upon teaching and learning of Geography, according to a national sample of Geography teachers, 2002, 2004 and 2005

| OPINION | PER CENT | | |
|-----------------------|----------|------|------|
| | 2002 | 2004 | 2005 |
| Very beneficial | 59 | 68 | 71 |
| Beneficial | 39 | 30 | 28 |
| Not very beneficial | 1 | 1 | 1 |
| Not at all beneficial | 0 | 0 | 0 |
| Don't know | 1 | 1 | 0 |

Second, teachers were asked to assess the impact of the *Free Maps* scheme upon pupils understanding of mapwork. Responses are shown in Table 4.17. Across all three national surveys, teachers were overwhelmingly of the opinion that the *Free Maps* scheme had significantly supported pupils' understanding of mapwork: at least 95 per cent of teachers indicated that the *Free Maps* scheme had been 'beneficial' or 'very beneficial' in this sense, in each survey.

Table 4.17 The impact of the *Free Maps* scheme upon pupils' understanding of mapwork, according to a national sample of Geography teachers, 2002, 2004 and 2005

| OPINION | PER CENT | | |
|-----------------------|----------|------|------|
| | 2002 | 2004 | 2005 |
| Very beneficial | 49 | 44 | 43 |
| Beneficial | 47 | 51 | 54 |
| Not very beneficial | 1 | 2 | 2 |
| Not at all beneficial | 0 | 1 | 1 |
| Don't know | 3 | 2 | 0 |

Third, teachers were asked to indicate whether they felt that the *Free Maps* scheme had impacted upon pupils' enjoyment of Geography. Responses are shown in Table 4.18. In each survey, at least 97 per cent of teachers consulted were of the opinion that the *Free Maps* scheme had been 'beneficial' or 'very beneficial' to pupils' enjoyment of Geography.

Table 4.18 The impact of the *Free Maps* scheme upon pupils' enjoyment of Geography, according to a national sample of Geography teachers, 2002, 2004 and 2005

| OPINION | PER CENT | | |
|-----------------------|----------|------|------|
| | 2002 | 2004 | 2005 |
| Very beneficial | 58 | 47 | 47 |
| Beneficial | 39 | 48 | 50 |
| Not very beneficial | 1 | 2 | 1 |
| Not at all beneficial | 0 | 0 | 0 |
| Don't know | 2 | 3 | 2 |

Fourth, teachers were asked to indicate whether they felt that the *Free Maps* scheme had raised pupils' awareness of the role and work of Ordnance Survey. Responses are shown in Table 4.19. In each survey, around three-fifths of teachers consulted felt that the *Free Maps* scheme had raised pupil awareness of Ordnance Survey 'a great deal'. More than nine-tenths of all teachers consulted felt that the scheme had raised awareness at least 'to some extent'.

Table 4.19 The impact of the *Free Maps* scheme upon pupils' awareness of Ordnance Survey, according to a national sample of Geography teachers, 2002, 2004 and 2005

| HAS FREE MAPS SCHEME RAISED AWARENESS OF OS? | PER CENT | | |
|--|----------|------|------|
| | 2002 | 2004 | 2005 |
| A great deal | 59 | 62 | 64 |
| To some extent | 37 | 35 | 32 |
| Not at all | 2 | 1 | 2 |
| Don't know | 2 | 2 | 2 |

4.2.1.6 Recent and planned map purchases

A key aim of CCY's national questionnaire surveys on behalf of Ordnance Survey has been to audit recent and planned purchases of Ordnance Survey maps in schools participating in the *Free Maps* scheme. In each survey, Geography teachers in participating schools were asked to detail purchases of Ordnance Survey maps and mapping resources in the present academic year. Tables 4.20-4.22 summarise purchases of Ordnance Survey Explorer maps, Landranger maps, and mapping resources, respectively, in the 1988 schools surveyed. In each case, a reasonably consistent picture emerges. In each of the academic years surveyed, around two-fifths of the schools surveyed had purchased Explorer maps, around one-fifth of the schools surveyed had purchased Landranger maps, and around one-quarter of the schools surveyed had purchased other Ordnance Survey mapping resources. In each case, over half

of the declared purchases were of less than ten items at a time. When viewed longitudinally, there is perhaps some indication from this data that the number and size of map purchases is increasing, year on year, in schools which are participating in the Free Maps scheme, but a longer period of evaluation would be required to verify this possible trend.

Table 4.20 Number of Ordnance Survey Explorer maps purchased in the present academic year by a national sample of schools, 2002, 2004 and 2005

| NUMBER PURCHASED* | PER CENT | |
|-------------------|----------|------|
| | 2004 | 2005 |
| None | 63 | 60 |
| 1-5 | 12 | 9 |
| 6-10 | 10 | 8 |
| 11-20 | 7 | 9 |
| 21-50 | 4 | 7 |
| 50+ | 4 | 7 |

* In the 2002 national questionnaire survey of Geography teachers, 24 per cent of teachers consulted indicated that they had purchased an Ordnance Survey Explorer map in the present academic year. However, the questionnaire did not ask teachers to indicate how many maps had been purchased

Table 4.20 Number of Ordnance Survey Landranger maps purchased in the present academic year by a national sample of schools, 2002, 2004 and 2005

| NUMBER PURCHASED* | PER CENT | |
|-------------------|----------|------|
| | 2004 | 2005 |
| None | 81 | 64 |
| 1-5 | 7 | 8 |
| 6-10 | 4 | 4 |
| 11-20 | 4 | 6 |
| 21-50 | 3 | 9 |
| 50+ | 2 | 3 |

* In the 2002 national questionnaire survey of Geography teachers, 20 per cent of teachers consulted indicated that they had purchased an Ordnance Survey Landranger map in the present academic year. However, the questionnaire did not ask teachers to indicate how many maps had been purchased

Table 4.21 Number of Ordnance Survey mapping resources purchased in the present academic year by a national sample of schools, 2002, 2004 and 2005

| NUMBER PURCHASED* | PER CENT | |
|-------------------|----------|------|
| | 2004 | 2005 |
| None | 78 | 64 |
| 1-5 | 10 | 12 |
| 6-10 | 6 | 6 |
| 11-20 | 4 | 2 |
| 21-50 | 4 | 2 |
| 50+ | 0 | 2 |

* In the 2002 national questionnaire survey of Geography teachers, 18 per cent of teachers consulted indicated that they had purchased other Ordnance Survey mapping resources in the present academic year. However, the questionnaire did not ask teachers to indicate how many items had been purchased

Finally, teachers were asked whether their school's participation in the *Free Maps* scheme had actively encouraged their school to purchase additional Ordnance Survey maps in the near future. Responses are shown in Table 4.22. In each survey, around three-fifths of the teachers consulted indicated that participation in the Free Maps scheme had encouraged their school 'a great deal' to make additional purchases of Ordnance Survey maps and resources. More than nine-tenths of all teachers consulted felt that the scheme had encouraged additional purchasing of maps at least 'to some extent'.

Table 4.22 The extent to which the *Free Maps* scheme has encouraged schools to purchase additional Ordnance Survey maps, according to a national sample of Geography teachers, 2002, 2004 and 2005

| HAS SCHEME ENCOURAGED ADDITIONAL PURCHASES? | PER CENT | | |
|---|----------|------|------|
| | 2002 | 2004 | 2005 |
| A great deal | 59 | 62 | 64 |
| To some extent | 37 | 35 | 32 |
| Not at all | 2 | 1 | 2 |
| Don't know | 2 | 2 | 2 |

4.2.1.7 Qualitative information about the operation of the *Free Maps* scheme

Key qualitative insights about the operation of the *Free Maps* scheme, from in-depth interviews with a national sample of Geography teachers in 2005 were as follows.

The vast majority of teachers agreed that the scheme runs well in practice, in their schools. Most teachers experienced no problems when registering for the scheme and there was general satisfaction about the delivery of the maps.

"I just think it is inspired, it is a really, really good scheme especially for our pupils..." (West Midlands, Urban, Special).

"It is very easy, the stuff comes straight to me and all my stuff is on the computer from last year, and all I have to do is say basically same as last year but change the number" (East Midlands, Suburban, Mainstream).

"It was in two or three weeks of ordering it online we got the maps" (East Midlands, Suburban, Mainstream).

"Absolutely. It has been so easy it's untrue, we just register online and that is it, done and dusted. ...It couldn't be better, it's just so easy. And the turnaround is awesome, the maps have been here so quickly" (West Midlands, Urban, Independent).

"No problems at all. I think it is excellent. It is very, very simple and straight forward. I have no problem at all with the ordering" (Yorkshire and Humber, Urban, Mainstream).

However, some teachers found aspects of the registration process a little frustrating. Concern centred on the need to identify the numbers of maps required at a time of the year when pupil numbers were not known.

"Yes, I think it just had a few teething troubles in the early days...it was the number on roll and you had to register sometime in advance of knowing the final numbers..." (South West, Suburban, Independent).

"...the problem we have is our years vary dramatically...and that was a pain on the internet... because it wouldn't validate because it said this was too far away from the figure you had last year" (West Midlands, Rural, Mainstream).

Problems that some teachers had previously encountered during their participation in scheme have largely been resolved.

"At first we weren't on the register because we signed up over the internet and everybody was supposed to get an entry code and the special needs schools weren't on the register. But you had to phone up, then they gave you a number that you could enter with and since then everything has been automatic" (West Midlands, Urban, Special).

"The problem with the first year was it was a hassle, things kept going wrong on the website, there was e-mails that didn't arrive and that was a pain but last year was fine and this year has been fine so far". (West Midlands, Rural, Mainstream).

4.2.1.8 Qualitative information about outcomes of the *Free Maps* scheme

Key qualitative insights about the benefits and outcomes of the *Free Maps* scheme, from in-depth interviews with a national sample of Geography teachers in 2005, were as follows.

First, teachers outlined ways in which the scheme had tangibly supported the development of their pupils' mapping and map work skills. Without exception, teachers confirmed that the provision of a free map was having a significant positive impact on their pupils' learning of these skills. That this map was of the local area was an important factor here.

"...by using a map they can relate to, they suddenly realise that maps are quite easy to use" (West Midlands, Suburban, Mainstream).

"...because they know the area I think perhaps they can picture in their mind what is along the road better than if I did it on any old map..." (Wales, Urban, Mainstream).

"it raises the level of understanding... in the past I've found they don't have much of a clue what's outside their own front door....the fact that (the map) is of their own area means they can identify the physical features ...this reinforces their map reading skills" (East Midlands, Suburban, Mainstream).

"I think we have probably got more on to things like six figure grid references which some of them find very difficult and scale. I think they can do it much quicker... So I think they are, they are getting the skills faster and we are probably getting to a higher level... I have ended up with better results the last few years I think..." (East Midlands, Suburban, Mainstream).

"It starts to feed through because we have only been really using them in the last 2 or 3 years, when we get to Year 9 there are some units...that look at map interpretation and...we

are finding that they are able to cope with those questions better than they would have done a few years ago" (East Midlands, Suburban/Rural, Mainstream).

"It improves skills quicker....it is improving their skills all the time....some kids are more interested in doing that in their free time" (Scotland, Suburban, Mainstream).

"I think the fact that you have got a local map for the youngsters has excited them a little bit more than just a map of something like Carlisle or somewhere they have never been to, and most have never heard of" (West Midlands, Rural, Mainstream).

"It is very good for giving them a sense of place because it is not just Dudley, a lot of our kids have got no idea that Wolverhampton is kind of north west of us and that West Bromwich is kind of north, north east of us and this kind of thing and it is really good from that point of view. ...The fact that it is our area is more ownership for the kids, this isn't just something I am doing about Cambridge or Carlisle...this is my town" (West Midlands, Urban, Mainstream).

"The nice thing is we can get these maps that are specific to this area and the kids can start relating it to their own environment. Yes, I think it is definitely helping the realisation that oh yes, that is that and they can see the place in their head and there it is on the map rather than the other way round" (North East, Urban, Mainstream).

"I think because it's Year 7 when they are given it needs to be somewhere that they are familiar with or where, or places that they know of" (East England, Suburban, Mainstream).

"The main benefits are linked to the children's futures, I think. They know more about their environments, location, where they are. They learn many skills – and we learn about how they're used by the police, army and so forth, like we see on the TV! So they're real life, outside school, and they can see that link" (Scotland, Rural /Isolated, Mainstream).

Teachers of special needs pupils, and those who taught 'lower ability' sets, described a number of ways in which the provision of free maps had been beneficial.

"...I mean obviously some of our children have horrendous learning difficulties and special concept problems and inversion problems. I have been actually surprised that most of them can, given a few basic rules which they learn...manage to handle a map" (Scotland, Urban, Special)

"I am always amazed that the special needs kids prefer maps to most other resources because there is a limited amount of writing on them, it is a very visual thing and I taught special needs Year 7 class, special class last year...and quite a few things with the maps there, thinking they might find it hard and they coped very, very well with it" (Wales, Urban, Special).

"...I actually spoke to one or two of the parents...and one of them said to me...when we go somewhere now we have his map up, out on the kitchen table and we show him where he is and we show him where we are going, and this gives him ownership of his environment because he can see on the map where he lives and where he is going..." (Scotland, Urban, Special).

"I think a lot of, I have got a set 1 and a set 2 group who have really picked up map skills because of that initial enthusiasm that they were going to get this map and it was something to aim for as a result of their hard work" (West Midlands, Urban, Independent).

"I have a set 2 group and for the first time ever I have actually got as far as teaching contour lines...I have never got there before and that was because it generated more enthusiasm" (West Midlands, Urban, Mainstream).

Second, teachers outlined ways in which the scheme had tangibly increased pupils' enjoyment of mapping skills, and Geography as a whole. Most teachers agreed that the free maps considerably enhanced their pupils' enjoyment of mapping and map work. Map ownership was seen to be a particularly powerful, positive stimulus.

"... giving them a nice free gift like this puts a lot of kids in tune, suddenly their eyes light up and they think yes, this is good" (East Midlands, Suburban, Mainstream).

Very positive. Very excited. Especially when I tell them how much it would have been in a shop. They take them away with great enthusiasm" (Wales, Urban, Mainstream).

"...I think anything that isn't a book is always a bit different for them and they enjoy that and like I said the ownership of the map and the fact that it is theirs, that creates a buzz..." (West Midlands, Urban, Independent).

"...it is the excitement factor of finding your own house on a map for the kids... and I think that is a great motivator because they get very excited about it and they show each other, oh I live there or my aunt lives there or something like that..." (South West, Suburban, Independent).

"They are enjoying the topic... I think they are proud of the fact that they can actually read a map that looks so complicated..." (Wales, Urban, Mainstream).

"They get gobbled up and they get used the whole time... the parents actually say oh my daughter read the map going up to Scotland or going down to Cornwall whatever... the feedback I get, the number of girls in fact who will get hold of the map and will sit in the front seat and tell Daddy how to go" (South West, Rural, Independent).

"I think from the point of view of map work they do see more relevance in it now with the maps than when were just doing an example of a map" (East Midlands, Suburban, Mainstream).

"Pupils are more conscientious... they bring them in religiously to every lesson..." (East Midlands, Suburban, Mainstream).

"They are always interested and when they see a map they just cannot stop looking at it, trying to find their house, trying to find where they live... But no, they love it, they love being given something particularly a map, they love it" (Wales, Rural, Urban, Mainstream).

"Because of the socio-economic situation here, I mean the biggest bonus of the scheme is that it gives pupils access to a map that they wouldn't have otherwise had, their own personal copy, that's the biggest plus for us" (East Midlands, Suburban, Mainstream).

Indeed, there was some early speculation that this newfound enthusiasm might precipitate an increase in the up of Geography as a GCSE option.

"Certainly we had a higher take up this year for GCSE than we had done the previous year and certainly the Year 9s which are ones who started with the maps...they are ever so keen to keep going" (East England, Suburban, Mainstream).

"I hope it will have an impact because we are always competing against the increasing range of other subjects....it can only be a good thing, it can only help raise the level of interest and enjoyment in geography and if they have enjoyed it through the lower school there is a much more of a chance that they will take it" (North East, Urban, Mainstream).

Third, teachers outlined ways in which the Free Maps scheme had been enormously beneficial in developing and updating provision for the teaching and learning of Geography, to an extent which would be beyond the bounds of their school's existing budget. For many of

the teachers interviewed, this was an obvious and key benefit of the scheme: having unprecedented access to up-to-date resources, without any financial obligation, was a huge advantage, and something that was greatly appreciated. Certainly, most schools would not be able to purchase map sets of this size for their pupils.

"I mean it's brilliant. I think it's fantastic and it's well worth doing because I think a lot of the time there is no way schools would be able to afford a resource like this so it's, you know, it's giving the kids access and ownership over the map means that they are more likely to think about, even think about buying one in the future. So no, it's good" (Yorkshire and Humber, Rural, Mainstream).

"...I think it's a marvellous resource. I think the cost of an individual department, as I say having been head of department and having to budget we couldn't possibly have afforded to give every new pupil, the seventy odd intake a new map..." (South West, Suburban, Independent).

"Because we get the maps for free we are able to use our finances to get other resources...this year we bought the OS flashcards" (East Midlands, Suburban, Mainstream).

"Knowing that you're going to get these maps, and not having to pay for them – I've got a tiny budget – you can plan your curriculum around it – which is great" (South East, Urban)

"I think it has been the most positive thing that people anywhere have done for geography over the last god knows how many years" (East Midlands, Suburban, Mainstream).

"They are a fantastic resource...you are not going to be struggling for a resource when you do decide to do OS mapping so from that point of view it has to be a plus point" (Scotland, Suburban, Mainstream).

"I mean the budget for the whole school , for the whole, everything, for history, geography, modern studies, the register class, I less than two hundred pounds a year so it is not going to buy me a class of maps" (Scotland, Urban, Mainstream).

"...it is just a tremendous thing that Ordnance Survey are doing, I honestly think that because it is saving us an absolute bundle of money". (Wales, Rural/Urban, Mainstream).

The addition of a whole-class resource was recognised as something of enormous value, especially for pupils with little access to maps at home. Teachers particularly welcomed this new resource for lesson-planning.

"[We are] just carrying on what we were doing, but it is making it easier to carry on what we were doing." (South West, Urban, Mainstream).

"That is very good because we never had a class set of maps before, we were always, you know, going round trying to, and also I found it is better for them to have one map each than them to try and share because a lot of our children don't share very well and they take ownership of their own map, they put their names on it and they are quite possessive of them" (Scotland, Urban, Mainstream).

"Many of these kids, perhaps the only map they have ever seen before are road maps things their parents have in the car sort of thing. So this is showing them something completely different" (Scotland, Suburban, Mainstream).

"I find whenever you get the maps out, you know, it tends to flow a lot better, the lesson. They work at their own pace and there's that when you have a got a structured lesson when you are...trying to teach geographical features. It just seems a lot more harder work to keep them all up at the same pace..." (East England, Suburban, Mainstream).

"I think just having the resource and having each child having the resource and being able to say to them look, if you make a mess of it is your resource as opposed to we have got to replace..." (East Midlands, Suburban, Mainstream).

"We draw on some deprived areas here, so some don't get many presents ... the majority love them - because they're some sort of gift...I am doing lessons that I have never done before" (Yorkshire and Humber, Urban, Mainstream).

"A lot of our parents would not think of buying an Ordnance Survey map or be able to afford an Ordnance Survey map and this is a perfect thing for them, to have access to that local information. I use them a lot whereas before there was no way I could do what I am doing now" (West Midlands, Urban, Special).

4.2.1.9 Qualitative information about usage of free maps

Key qualitative insights about the usage of free maps, from in-depth interviews with a national sample of Geography teachers in 2005 were as follows.

First, teachers indicated many and varied ways in which the free maps had been put to use in classroom exercises. Evidently, the free maps are being extensively used within geography lessons at school, often in very novel ways.

"We have used the maps for loads of things: settlements; rivers; industry; ecosystems; geomorphology." (Yorkshire and Humber, Urban, Mainstream).

"To me geography's about spatial awareness and the best way to portray it is through a map, and so we are using maps all the time in our lessons" (Yorkshire and Humber, Urban, Mainstream).

"I do a quiz where we they work in groups. I shout out 6-figure grid references, and they have to see who is the first to get them. That's usually a one of, but they really like that!" (Scotland, Rural/Isolated, Mainstream).

"Yes, they moulded the clay along the contour lines of, each of them I said to make each layer uniform thickness if they could. Pulled each one off at a time and then built them up afterwards, and... it was fantastic, it looked really good" (Wales, Urban, Mainstream).

"I get them to draw a sketch map of their own area with no help at all. I refuse to help them at all, and then we discuss at the end why they have found that a difficult task, and it's brilliant because they come up with things like, I can't show a hill. So then I say, right in lesson five we will be learning how to show hills." (Wales, Urban, Mainstream).

"We cut one map up and laminate it and we use that as a jigsaw type game, we also do different routes and work out mileage and that sort of thing...so they are being used across the curriculum for maths and things too" (East Midlands, Suburban, Mainstream).

"We also map out routes and draw these from the maps, from six-figure grid references. Like walks, or cycle routes" (Scotland, Rural/Isolated, Mainstream).

"We prefer the 1:25,000 version – it's particularly good for looking at local features, and it's basically centred on the town and the local villages. Linked to that, we also get them using

compasses – to imagine how and why you'd need a compass when you're out and about, and what directions mean" (Scotland, Rural/Isolated, Mainstream).

"Reinforcing what they have learnt from a textbook and what we have talked about. Lets say, you know, how do rivers manage to go around the high ground. If you have got a map that you can show them. So you have them trace it." (East England, Suburban, Mainstream).

"We have done ...modelling with some plasticine. I got the two squares centred on our school and sort of blew up just the basic contour lines with some of the features of the area, and after doing a little practice on some simple contour patterns of building up layers of different coloured clay they created a model of the school area, and they were really chuffed. It looked really good and they even put a little river and a road, and the school on it, and they could recognise, it was accurate enough so that they could recognise it" (Wales, Urban, Mainstream).

Second, teachers indicated many and varied ways in which the free maps are being used in homework activities. Universal map ownership is widely seen as an immense benefit for homework: it has enabled geography teachers to set homework exercises *knowing* that all their pupils have access to the same map.

"It has made it much more possible to do homework with map work which was a problem before ... so it has made it possible to do and we are getting better homework results from them because of this..." (East Midlands, Suburban, Mainstream).

"You can do homework that was not possible before, like that which actually make the thing real to them" (East Midlands, Suburban, Mainstream).

"It has certainly made homework exercises easier because up to now you couldn't rely on a student having a map at home. Now we know they were all given a map, whether it is still at home is another question so you can set more homework based around the map exercise" (North East, Urban, Mainstream).

"...you can set homework from the map and also they don't have to share..." (East England, Suburban, Mainstream).

"We have now devised a new homework strategy...we are going to get them to use their Ordnance Survey maps to then describe where they live using the Ordnance Survey maps as a source of reference" (South West, Rural, Independent).

"It has opened up the homework side of things because before it was very limiting what you could set as homework because you couldn't guarantee that the kids would have maps at home" (North East, Urban, Mainstream).

"What we try to do is have map activities that run alongside the maps so that they can use them for their homework and it is quite a good motivational tool for them" (North West, Suburban, Mainstream).

Third, teachers outlined many and varied ways in which free maps had been put to use in fieldwork activities. Many teachers reported on how the free maps had been instrumental in facilitating new fieldwork and outdoor exercises.

"We always did map work because part of what we do in primary 7 was that we would lead towards an outward bound week in summer term... including orienteering and map reading...orienteering is a sport...maths and artwork as well can come from it" (Scotland, Suburban, Mainstream).

"What we do is ask them to design a route around the school and then we go out for a lesson follow it, that way they can see if they made any mistakes with direction or land marks" (East Midlands, Suburban, Mainstream).

"We use our local map to go to the supermarket and we look at the supermarket site because we can walk around that in a lesson." (South West, Urban, Mainstream).

"With a group of gifted and talented pupils in geography we have produced a walk in the local area for the local people and they have worked really hard using one of these maps...they did some grid references and directions for them to follow, they then went out and they walked their route and used the maps for that and made any alterations to their descriptions, they have come back, produced a guide for the walk and they are at the moment drawing a up a sketch map based on the map." (North West, Suburban, Mainstream).

"We did a mystery tour around and ... I would ask the children to design one for the other half of the class sort of thing. So it's quite an extensive list of instructions to start at school and follow various routes and I have tried to build in grid references, directions, distances, all sorts of things. I am asking questions along the way about what they are passing and to describe what they can see. [next year I will]... send letters home and run it as a proper drive around the route, treasure hunt thing and get the parents involved with that. Maybe as a school event then, you know, on a Saturday or

after school or something. And have a prize for whoever gets around first". (Wales, Urban, Mainstream).

Fourth, teachers outlined many and varied ways in which free maps were being used across and beyond the school curriculum. In a significant number of schools, the free maps were not just being used for geography lessons, but were treated as a 'whole school' resource, and used by other subject teachers, and in extracurricular activities.

"History have used them, RE have used them but that is we are like a big humanities group" (East England, Suburban, Mainstream)

"We also do an ASDAN course which is...like an alternative to GCSEs, a bit more vocational and life skills based and they do local research and they have borrowed the maps on several occasions as well" (West Midlands, Urban, Special).

"In terms of other subjects, history when they do the industrial revolution because we are in a mining area they have encouraged students to use the maps to look at old disused mine workings..." (South West, Rural, Mainstream).

"Yes, other subjects have often come along and said, have you got a map of Cardiff...technology used it for something, I am not sure what...our minority language department used them quite often just for familiarising themselves with the area. Sociology have used them I think because they were doing some sort of Cardiff based research project. So yes, people will automatically, I mean it is I think known amongst certain of my colleagues that we have these maps available" (Wales, Urban, Mainstream).

"...they are used with the Duke of Edinburgh award quite a lot..." (West Midlands, Urban, Special).

4.2.1.10 Qualitative information on materials supporting the *Free Maps* scheme

Key qualitative insights about the usefulness of materials supporting the *Free Maps* scheme – such as the *Map Reading Made Easy Peasy* leaflet, and the MapZone website – from in-depth interviews with a national sample of Geography teachers in 2005 were as follows.

Most teachers thought that the *Map Reading Made Easy Peasy* was useful and effective as a learning resource. Among those that had used – only a small proportion to date – there was general acclaim for its user-friendly design and usefulness.

"...they found the 'Easy Peasy' leaflets have been really useful... for homework activities and the questions for revision.... And quite a lot of them have used the map, the website as well... and some of the puzzles and things on there, and they have come back and we have talked about it, but they have come back and said, oh I have looked at that or had a go at that, and then on their own" (East Midlands, Suburban, Mainstream).

"...the 'Easy Peasy' leaflet – was fantastic for homework. Really, really useful for homework. And you don't have to take the O.S. map home for that – because a lot of the exercises are based on little map extracts on the leaflet itself" (South East, Urban, Mainstream).

"We use the [MapZone] website now to download bits of maps for projects..." (Wales, Urban, Mainstream).

"The website is fab...it has all the information and symbols, we use the wireless laptops in class and encourage them to look at it at home too" (East Midlands, Suburban, Mainstream).

"The map zone website and we do use that, we have broadband access so we go online and do that, follow it up. It is very useful. They enjoy it as well. Very enjoyable and lots of information there and now more children are getting broadband access at home. They fed back to me, I had one say, oh I went onto that site and that's even before I said" (East Midlands, Suburban/Rural, Mainstream).

4.2.1.11 Qualitative information about the *Free Maps* scheme and pupils with Special Educational needs

Teachers in mainstream schools were highly satisfied with the *Free Maps* scheme and few were able to suggest any ways in which it could be improved. However, this was not the case amongst teachers with responsibilities for children with special educational needs. Several of these suggested a number of changes that would considerably assist them. Most of these related to the need for simplified information and the provision of smaller (extracted) maps.

"I think perhaps they could actually produce a little booklet with the skills so that there are little work sheets that they could do. ...Particularly for the less abled, very simplified..." (East Midlands, Suburban/Rural, Mainstream).

"Maybe if about 20 of the most common symbols were picked out and drawn a bit bigger with simplified meanings, you know, some of the meanings are quite difficult to understand

aren't they, if you just had something very simple like main road or e.g. A1 or something, that might be quite helpful, especially for our SENs..." (Wales, Urban, Mainstream).

"That guide, how to read a map is pretty good. There's a little bit too much writing in it for some of our lower abilities" (Wales, Rural/Suburban, Mainstream).

"Smaller maps...or map extracts would be helpful. The big maps are too difficult to fold for many of our kids. "(West Midlands, Urban, Special).

"I don't think we use them particularly well .. I don't think they are particularly child friendly for our particular children, perhaps they could think about that" (East England, Suburban, Special).

4.2.2 Findings from survey of Geography teachers in participating schools in Scotland, 2005

Key quantitative and qualitative findings from CCY's survey of Geography teachers in schools participating in the *Free Maps for 11-Year-Olds* scheme in Scotland, in 2005, were as follows. Sections 4.2.2.1 – 4.2.2.2 present quantitative findings from the questionnaire survey of Scottish Geography teachers. Sections 4.2.2.3 presents qualitative extracts from in-depth interviews with a sample of Scottish Geography teachers in participating schools.

4.2.2.1 Value of *Free Maps* scheme

Scottish teachers were asked to indicate the extent to which they found the *Free Maps* scheme to be of value in their schools. Responses are shown in Table 4.23. The vast majority of teachers consulted considered the scheme to be valuable, with 96 per cent rating it as either "quite" or "very valuable". Teachers in secondary schools were slightly less enthusiastic compared to their primary school colleagues, but even among these teachers more than four-in-five (81%) were highly positive about the scheme.

Table 4.23 The value of the *Free Maps* scheme, according to a sample of Scottish teachers, by type of school, 2005

| PERCEIVED VALUE OF SCHEME | PER CENT | |
|---------------------------|-----------------|-------------------|
| | Primary schools | Secondary schools |
| Very valuable | 65 | 75 |
| Quite valuable | 31 | 6 |
| Not very valuable | 2 | 8 |
| Not at all valuable | 1 | 2 |
| Not declared | 1 | 9 |

Only 14 Scottish teachers rated the *Free Maps* scheme as “not very valuable” or “not at all valuable”. Reasons given by these teachers for their negative perceptions of the scheme are reported in Table 4.24. Key concerns included the low skill levels of primary school pupils, and a perceived lack of time within the primary curriculum to make full use of the maps.

Table 4.24 Reasons for describing the *Free Maps* scheme as “not very” or “not at all” useful, according to a sample of Scottish teachers, by type of school, frequency

| EXPLANATION | PRIMARY SCHOOLS | SECONDARY SCHOOLS |
|---|-----------------|-------------------|
| Pupils skills level is too low | 5 | 1 |
| No consistency for secondary schools | 0 | 1 |
| Not enough time to teach map skills | 3 | 0 |
| Primary teachers are insufficiently skilled to learn map skills | 0 | 1 |
| Not declared | 1 | 2 |
| Total | 9 | 5 |

4.2.2.2 Position of *Free Maps* scheme in the Scottish curriculum

Teachers were asked at what point they felt that Scottish school pupils should receive free maps (given that many Scottish pupils are in primary school at age 11). Responses are shown in Table 4.25. The results suggest a marked divergence of opinion. Evidently, primary teachers are very satisfied with the scheme as it stands and would like to see it continuing as currently presented (with maps presented to 11-year-olds whilst in the P7 cohort): more than nine-tenths (93%) of primary teachers expressed this view. Conversely, a similar proportion of secondary school teachers (92%) suggest that the scheme would be better placed within their schools, and should therefore change, to present the free maps once pupils reach the S1 cohort. In essence, most teachers would like to see the free map scheme based within their own part of the educational system – a perhaps unsurprising result given the perceived value of the free maps as an educational resource.

Table 4.25 Teachers’ preferences for which Scottish schools should receive the free maps, by type of school

| SCHOOLS THAT SHOULD RECEIVE FREE MAPS | PERCENTAGE OF PRIMARY TEACHERS | PERCENTAGE OF SECONDARY TEACHERS |
|---------------------------------------|--------------------------------|----------------------------------|
| Primary 7 (P7) | 93 | 8 |
| Secondary 1 (S1) | 7 | 92 |

Teachers were asked to expand on their reasons for expressing the views summarised in Table 4.25. Reasons given are presented in Table 4.26. Among primary school teachers there was a strong view that this was the optimum time to develop mapping skills (40%); that mapping was an integral part of the P7 curriculum and the free-map scheme facilitated its delivery (28%); and that the maps were an excellent resource for their school (14%). On the other hand, secondary school teachers highlighted that mapping was also a part of the S1 curriculum (35%); that in secondary schools there were specialised teachers who would make better use of the maps (33%); that older pupils are better placed to understand maps (11%) and that primary schools are inconsistent in their delivery of mapping skills leading to an unevenness of skill levels as pupils progress to S1 (11%).

Table 4.25 Reasons given by a sample of Scottish teachers, re. which schools should receive free maps in Scotland, by type of school, 2005

| REASON GIVEN | PERCENTAGE OF PRIMARY TEACHERS | PERCENTAGE OF SECONDARY TEACHERS |
|---|--------------------------------|----------------------------------|
| Optimum age to develop skills/interest | 40 | 11 |
| Mapping is part of P7 curriculum | 28 | 2 |
| Maps are a useful resource | 14 | 4 |
| Specialised teachers in secondary schools | 4 | 33 |
| Mapping is part of S1 curriculum | 3 | 35 |
| Should be available to both | 3 | 4 |
| Unevenness in the delivery of mapping skills in primary schools | 1 | 11 |
| Not declared | 6 | 0 |

4.2.2.3 Qualitative data from in-depth interviews with Scottish teachers

Key qualitative insights from in-depth interviews with Scottish teachers, conducted in 2005, were as follows.

Teachers interviewed in participating Scottish primary schools were highly complementary about the scheme, valuing the maps as a resource for their teaching and identifying many benefits for their pupils.

"We are lucky, we are not a big city...on our map you have got the sea and seaside thencountryside and farms....you've got everything you could want on an OS map" (Primary, Remote).

"They are a fantastic resource...you are not going to be struggling for a resource when you do decide to do OS mapping so from that point of view it has to be a plus point" (Primary, Suburban).

"Long may the scheme continue basically because it is a very good resource.... think this gives us a starting point and a useful thing that we can work with the children with you know" (Primary, Remote).

"Quite often the spark of interest is when they actually see their own local area and that's the point where for instance we catch them early on when we are doing this. If you can catch them with that's exactly where you live....You can see where they are in their local surroundings, then often that sparks the interest and like ... get more interest in maps that way" (Primary, Remote).

On the other hand, whilst teachers consulted in Scottish secondary schools saw value in the existing nature of the scheme, they identified two major problems with its current form. The first relates to its uneven take-up by primary schools. Thus, within a secondary school's catchment some pupils may come from a primary school participating in the scheme and others may be from schools that have not taken part.

"We find that some pupils have been part of the scheme...but some of the pupils have never seen an Ordnance Survey map before in their life and so therefore we have to go right back to the start and start them off" (Secondary, Rural).

"The most important thing for me...is when all the children coming up to the first year from all (primary) schools, I would like them all to have done exactly the same thing as regards maps" (Secondary, Suburban).

"I think even in the first year class, I think you notice a big difference (in skills) between those who have the maps and those who haven't....some kids say that they have not had the maps, they didn't get the maps at primary school, and pupils who have had the maps then they clearly understand them....whereas the other ones....are therefore a wee bit disadvantaged" (Secondary, Rural).

The second problem identified by secondary school teachers relates to the unevenness of geography teaching within Scottish primary schools. For example, they noted that not all primary schools have geography specialists as part of their staffing.

"Unfortunately the geography coverage in the teaching ...can be good in one primary school and then you go to the next primary school and it's non-existent"
(Secondary, Remote).

"At the end of the day primary teachers aren't geographers and they are always looking to us to do geography and help them" (Secondary, Suburban).

"unfortunately the geography coverage in the teaching ...can be good in one primary school and then you go to the next primary school and it's non-existent" (Secondary, Suburban).

Another issue raised by Scottish secondary school teachers is the current lack of unity between primary and secondary education in Scotland; thus, there is no guarantee that a feeder primary will have linked up in any way with its secondary school with respect to achieving a joined-up curriculum.

"It just shows that secondary and primary are not that well coordinated in terms of stranding and bringing it through"
(Secondary, Rural).

"What we would also say is that the primary schools teach, sometimes they teach certain elements of mapping skills while they don't cover all of it so as I say it is very, very patchy"
(Secondary, Suburban).

Thus, for these secondary school teachers there was a unanimous view that the scheme would be better located with them than elsewhere.

"I thought it was unusual (to aim it at primary schools), I thought bearing in mind the Scottish system, it would be better.....target the geography departments in Scotland"
(Secondary, Suburban).

"the main map work in Scotland we find is probably S2, S3 and S4 in geography so Ordnance Survey is compulsory then.....from S3 onwards we obviously have a big uptake in Ordnance Survey" (Secondary, Rural).

Each of the Scottish secondary school teachers consulted believed that if the scheme was extended to incorporate secondary schools many benefits would accrue.

"Clearly if they had a map that might aid and abet their homework there in their own locality...they can relate it from their own local area....to get that impression...to get a visual

impression of the map the hills, land...or whatever it looks like" (Secondary, Rural).

"Certainly do local studies far more because we actually struggle in getting high quality maps at a reasonable price for the local area...but quite often the spark of interest is when they actually see their own local area and that's the point where for instance we catch them early on when we are doing this. If you can catch them with 'that's exactly where you live'" (Secondary, Remote).

"It wouldn't just be used for one year group it would be used right through the year from the first year right through to sixth year, and basically that would be a fantastic resource for a secondary school to have. Not just for geography but for history and other things as well ... and such like, and you are reaching far more pupils with it than you would be at primary school level" (Secondary, Remote).

"If there were going to be any free maps getting handed out, come to the secondary school because also while they are doing a patchwork sort of, type of thing, we would see 270 pupils per year" (Secondary, Suburban).

4.2.3 Findings from national survey of Geography teachers in non-participating schools, 2005

Key findings from CCY's UK-wide telephone survey of Geography teachers in schools on Ordnance Survey's database of schools not participating in the *Free Maps for 11-Year-Olds* scheme, in 2005, were as follows.

Each of the 33 teachers who agreed to respond to the survey was asked to explain why their school had elected not to participate in the *Free Maps* scheme. Responses are summarised in Table 4.26. More detailed explanations, with verbatim quotes from the participating teachers, are provided below.

Table 4.26 Reasons for non-participation in the *Free Maps* scheme given by a sample of Geography teachers in non-participating schools, 2005

| EXPLANATION GIVEN | FREQUENCY | PER CENT |
|----------------------------|-----------|----------|
| Confused/Outdated database | 12 | 34 |
| No P7 pupils | 10 | 28 |
| Lack of information | 5 | 14 |
| Problems signing up | 2 | 6 |
| Surplus of maps | 2 | 6 |
| Maps not used | 1 | 3 |
| Not interested | 1 | 3 |
| Oversight | 1 | 3 |
| Too busy | 1 | 3 |

The main reason for apparent 'non-participation' actually appeared to be the occasionally confused or outdated information on Ordnance Survey's 'non-participating' database. One-third (34%) of teachers consulted expressed concern that Ordnance Survey's database systems appeared to be out-of-date, to the extent that participating schools appeared on the 'non-participating' database.

"We did participate – but the school is on two sites so, may not have been recognised as same on the database". Teacher, London.

"We *did* take part in the OS free maps for kids scheme last year. We now find it invaluable". Teacher, Oxford.

A second key reason for non-participation related to the situation in small, often remote, Scottish primary schools. One-quarter of the 'non-participating' teachers consulted worked in this type of school, where very small, or non-existing, P7 class sizes mitigated against annual participation in the Free Maps scheme.

"We did actually take part this year, but only had 3 pupils in P7. Last year, there were no pupils in the oldest year; we participate when we can!" Teacher, Oxford.

"We didn't have any pupils in P7 this year. We are a single-teacher school. So we had no maps this year, but took them last year, and will take them next year again". Teacher, Blairgowrie.

"We don't have any P7 pupils. We have also got enough maps of the local area anyway". Teacher, Kinbrace.

A third key reason for 'non-participation' appears to be insufficient or confused information about the *Free Maps* scheme. Around one-in-ten (14%) 'non-participating' teachers consulted explained that they had missed out on the current round of the scheme because of confusion or insufficient information, often related to, changing circumstances: for example, changing school personnel, or changing school structure.

"We missed the maps this year – it was just an oversight. Could you tell me how to order them as I'm not sure? We need more information". Teacher, Glasgow.

"We normally register, but just missed it this year. We were wondering if an E-Mail had been sent around that we'd missed". Teacher, Glasgow.

"The first year we got a letter through the post and last year. I've not received one this year...my colleague might have got the letter and forgotten about it but I hadn't realised that we hadn't been signed up". Teacher, South Yorkshire.

"I took over the post in September. The contact person left before the registration period. I arrived after it had closed" Teacher, London.

Other reasons given for non-participation in the scheme were as follows.

Problems signing up (6%):

"A problem with the website last year meant that we could not log on. We tried at school and at home. Eventually someone from the OS did sort it out for us, and we got the maps. The OS were very helpful!" Teacher, Scotland.

"I went on the OS website, and followed the instructions, and entered the class sizes and the website wouldn't accept the number. And the OS came back and asked for more paperwork and extra info, and to be perfectly honest, if that's your attitude, then I can't be bothered to prove how many pupils there are in this school. It's not worth it. I'm not in the business of deceiving the OS just to get a free map of our local area". Teacher, Nottingham.

A surplus of maps from previous rounds of the scheme (6%):

"What we did was we did participate in the first year and we kept those and use them as a class set, so we just give them out as and when they are needed. That's working, so we

haven't needed to sign up for a couple of years" Teacher, Bromsgrove.

"We did participate last year but we didn't give all the maps out...certain pupils will treasure them and others will just throw them away or ruin them which seems a shame. We give them out to start with for class work and homework exercises and to those that are doing GCSE, but we had enough left over this year so we didn't need to order anymore. I expect next year we will need them again though, they have been really useful though". Teacher, Essex.

Having 'no use' for free maps (3%), being 'too busy' (3%), or having a defiant lack of interest in the scheme (3%)

"We don't use the maps. It seems a shame to take them if others need them". Teacher, Bridge of Don.

"We are inundated with work, and don't have the time or energy to take part and use the maps. I am the only person able to order the maps, and the pressure of work stops me using them". Teacher, Glasgow.

"We just definitely don't want to take part – no real reason apart from lack of interest and willingness!" Teacher, Airdrie.

4.3 Findings from national surveys of parents/carers, 2003

CCY's national questionnaire survey of the parents/carers of Year 7 pupils, recently in receipt of a free map, in 2003, gathered quantitative information regarding the attitudes and practices of parents/carers in relation to the *Free Maps for 11-Year-Olds* scheme. This information can be used to verify and reinforce understanding of the patterns described in relation to the parents/carers of the pilot cohort of pupils (see Section 3.4). Key findings from the 2003 national survey are as follows.

4.3.1 Engagement with free maps

In the national survey of parents/carers conducted within one month of the distribution of free maps in 2003, parents/carers were asked whether they had looked at, and used, the free map given to their son/daughter. Responses are shown in Table 4.27, and indicate a significant level of engagement with the *Free Maps* scheme among parents/carers. Over 90 per cent of parents/carers had heard about (93%) and/or actively looked at (91%) their son's/daughter's free map. Just one month after the distribution of

free maps, more than half (59%) of the parents/carers surveyed said that they had found the free map useful in some way.

Table 4.27 Engagement with free maps amongst a national sample of parents/carers, 2003

| ENGAGEMENT WITH FREE MAP | PER CENT |
|-------------------------------|----------|
| 'I have heard about map' | 93 |
| 'I have looked at the map' | 91 |
| 'I have found the map useful' | 59 |

Parents/carers were asked to indicate how they had used their son's/daughter's free map during the first month of ownership. Responses are shown in Table 4.28. Clearly, just one month on from receiving free maps, a significant proportion of the parents/carers of Year 7 pupils had found the free maps useful for a wide range of purposes: to 'find a place'; 'to get to know an area'; to plan journeys; for car journeys; whilst hiking or cycling; or simply 'out of interest'.

Table 4.28 Ways in which national sample of parents/carers found free maps useful, 2003

| PURPOSE | PER CENT |
|-------------------------|----------|
| To find a place | 35 |
| Out of interest | 33 |
| To get to know an area | 15 |
| Planning local journeys | 8 |
| In a car | 8 |
| Visiting local sights | 6 |
| On a hike/country walk | 6 |
| When cycling | 4 |

4.3.2 Awareness of Ordnance Survey

The national sample of parents/carers were asked whether they had been aware of what Ordnance Survey is/does prior to the launch of the *Free Maps* scheme. Nearly one-half (49%) of all parents surveyed admitted that they had been uncertain of the role of Ordnance Survey, prior to the launch of the *Free Maps* scheme. Parents/carers were asked if, one month on from the distribution of free maps to their sons/daughters, they could define the role of Ordnance Survey. Responses are shown in Table 4.29. In contrast to the declared situation prior to receipt of free maps, One month on from the distribution of maps to their sons/daughters, over three-quarters (79%) of parents/carers surveyed were able to correctly define the role of Ordnance Survey.

Table 4.29 Definitions of Ordnance Survey by a national sample of parents/carers, one month after free maps, 2003

| PURPOSE | PER CENT |
|-------------------------------|----------|
| National mapping organisation | 79 |
| Don't know | 8 |
| Surveying company | 6 |
| Map wholesaler | 5 |
| Military organisation | 2 |

4.3.3 Likelihood of map purchases

The national sample of parents/carers were asked to indicate how many Ordnance Survey maps they had purchased in the year prior to receiving a free map. Responses are shown in Table 4.30. Prior to the *Free Maps* scheme, four-fifths of parents/carer had not recently purchased an Ordnance Survey map. Just one-fifth (20%) of parents/carers had purchased an Ordnance Survey map in the preceding year, and only 7 per cent had purchases more than one maps in that time.

Table 4.30 Number of Ordnance Survey maps purchased by a national sample of parents/carers in year prior to receipt of free map, 2003

| NUMBER OF OS MAPS PURCHASED | PER CENT |
|-----------------------------|----------|
| >6 maps | 1 |
| 4-5 maps | 1 |
| 2-3 maps | 5 |
| 1 map | 13 |
| None | 80 |

One month on from distribution of free maps, parents/carers were asked whether they now planned to purchase another Ordnance Survey map in the next twelve months. Responses are shown in Table 4.31. One month on from their son/daughter receiving a free map, one-third (34%) of parents/carers surveyed stated that they 'definitely' intended to purchase another Ordnance Survey in the following twelve months, and a further 56 per cent stated that they would 'possibly' purchase another Ordnance Survey map. Only one-in-ten parents surveyed stated that they would not purchase another Ordnance Survey map following receipt of a free map.

Table 4.31 Proportion of national sample of parents/carers who planned to purchase another Ordnance Survey map, following receipt of free map, 2003

| PLANNING TO PURCHASE ANOTHER OS MAP? | PER CENT |
|--------------------------------------|----------|
| Yes definitely | 34 |
| Possibly | 56 |
| No | 10 |

5 SUMMARY

- 5.1 From 2000-2006, CCY has conducted 27 investigations, and published 17 reports, regarding the conduct, impact, successes and limitations of Ordnance Survey's *Free Maps for 11-year-olds* scheme. This report provides a reflective overview of the body of data amassed in this period.
- 5.2 In 2001, the *Free Maps* scheme was piloted with the Year 7 cohort in six secondary schools. CCY conducted research with this cohort prior to distribution of maps, and has returned to carry out follow-up research in each subsequent academic year. These yearly surveys have repeatedly posed identical questions, so it is possible to derive longitudinal data, tracking changing outcomes of the *Free Maps* scheme over the last half decade. Some key longitudinal findings are as follows.
- 93 per cent of pupils in the pilot cohort have used their free map at least once since receiving it. Four years on from receipt, nearly one-half (46%) of pupils in the pilot cohort used their free map in 2005.
 - Prior to the scheme, fewer than one-in-ten pupils from the pilot cohort said that they had ever found maps 'useful at home' (7%). Four years on, the number of pupils who describe maps as 'useful at home' has quadrupled (now 28%).
 - Prior to the scheme, nearly twice as many pupils from the pilot cohort said they 'did not understand' maps (48%) as said they understand maps 'well' (28%). Four years on, this situation has reversed: the number of pupils who are confident in their understanding has doubled (now 54%), whereas four times fewer (now 13%) pupils say that they 'do not understand' maps.
 - Prior to the scheme one-in-three (36%) pupils stated that maps were 'important'. Four years on, the number of pupils who perceive maps as 'important' has doubled (now 60%).
 - Prior to the scheme one-in-five (19%) pupils were aware of Ordnance Survey's role. Four years on, the number of pupils from the pilot cohort who are aware of Ordnance Survey's role has almost trebled, (now 58%).
 - Prior to the scheme, fewer than one-in-ten (8%) pupils from the pilot cohort expected to buy a map in the following twelve months. Four years on, the number of pupils likely to purchase a map has increased fivefold (now 39%).

5.3 Since the launch of the *Free Maps* scheme in 2002, CCY has conducted a series of extensive national surveys, to evaluate the progress, success and limitations of the scheme. National surveys of teachers, pupils and their parents/carers have consistently returned the following findings.

- the Free Maps scheme has significantly fostered the teaching and learning of Geography in participating schools. The scheme has enabled the development of innovative modes of Geography teaching and learning in many schools in the UK. Participating teachers consistently observe a range of positive outcomes of the Free Maps scheme for their pupils. Significantly, these outcomes have been most dramatic in those schools where map provision, and pupils' mapping skills, were most limited prior to the Free Maps scheme.
- the Free Maps scheme generates considerable excitement and enjoyment about mapping in each successive Year 7 cohort. Year 7 pupils describe numerous newfound ways in which they find map ownership positive, and consistently state that map ownership has significantly extended their understanding of, and enthusiasm for, maps and mapping.
- Free maps are well-used by the pupils' families and friends. Parents/carers report that their understanding of, and enthusiasm for, maps and mapping has significantly increased as a result of their son/daughter receiving a free map.
- Teachers, pupils and parents/carers all report that they are significantly more likely to purchase Ordnance Survey maps as a result of the Free Maps scheme.

5.4 Respondents to CCY's consultations have suggested numerous ways in which the *Free Maps* scheme might be improved. While many of these suggestions related to ongoing operational issues which have since been resolved, the following, more substantial, needs have been identified over the last half decade. Ordnance Survey might remain mindful of these needs in the future development of the *Free Maps* scheme.

- A need to develop the Free Maps scheme to better support the needs of children with disabilities or Special Educational Needs.
- A need to continually provide either guidance materials for teachers, suggesting innovative and effective ways in which the free maps can be put to use, or workshops for the sharing of good practice in mapwork.
- A need to better understand how the enthusiasm generated by the scheme might be sustained in later school years (particularly in

relation performance post Key Stage 3, and the uptake of Geography at GCSE).

- A need to provide 'bridges' between Primary and Secondary level Geography, perhaps in the form of 'primer' resources for Primary schools.
- A need to continually develop the Free Maps scheme to make good use of increasingly available IT-based and online resources for teaching and learning.
- A need to better understand, in greater detail, differences and diversity, within each Year 7 cohort, in engagements with the Free Maps scheme.
- A need to understand, in greater detail geographical differences in uptake of, and engagement with, the Free Maps scheme.