Key Stage 3
National Strategy

Raising Standards
Standards and Effectiveness Unit

Making links:
guidance for summer schools

department for
education and skills
creating opportunity, releasing potential, achieving excellence

Contents

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1 Introduction

Rationale

The government's National Literacy and Numeracy Strategies for primary education have set ambitious targets for attainment at age eleven. By 2004 85% of 11 year olds are expected to achieve level 4 or above in English and 85% to achieve level 4 or above in mathematics. Primary pupils are already well on the way to achieving their targets. The challenge for Key Stage 3 is to secure and build on these achievements and at the same time offer help to those pupils who need additional literacy and mathematics support.

The Key Stage 3 National Strategy focuses on four important principles:

- **Expectations:** establishing high expectations for all pupils and setting ambitious targets for them to achieve.
- **Progression:** strengthening the transition from Key Stage 2 to Key Stage 3 and ensuring progression in teaching and learning across Key Stage 3.
- **Engagement:** promoting approaches to teaching and learning that engage and motivate pupils and demand their active participation.
- **Transformation:** strengthening teaching and learning through a programme of professional development and practical support.

Summer schools are an integral part of the Key Stage 3 National Strategy. They are an important element in a range of provision which supports pupils who are performing below national expectations. They play an important role in giving pupils, who are still at level 3 in the National Curriculum tests, a flying start to their secondary school career by making links between the Year 6 and Year 7 curriculum. Pupils are expected to achieve the targets the summer school coordinator negotiates with them and their Year 6 teachers.

Summer schools strengthen the transition from Key Stage 2 to Key Stage 3 and incorporate approaches to teaching and learning which pupils are familiar with in the primary strategies but which are applied in the context of the secondary school curriculum and the Frameworks for English and mathematics. Those pupils who leave primary school still at level 3 are given additional support to improve their literacy or numeracy skills during summer school. This support continues throughout Year 7 through well-structured and focused catch-up programmes to enable these pupils to reach level 4 by the end of the year.

The purpose of this guidance

This guidance is for those running summer literacy and numeracy schools. It is written specifically for managers and coordinators in schools. It may also be of interest to local education authority (LEA) officers, headteachers and their staff, and other teaching and support staff involved in providing courses for Year 6 and Year 7 pupils.

The guidance seeks to ensure that lessons learned from the summer schools programme in previous years are applied in planning for this year. It highlights the importance of integrating summer schools with the catch-up programmes in Year 7. Experience in previous years indicates that schools placed more emphasis on running summer schools than on the Year 7 catch-up programmes. It is important that these are seen as two closely-linked programmes.

This summer school guidance should be read in conjunction with the guidance contained in the literacy and numeracy Year 7 catch-up programmes. Teaching units for both literacy and numeracy summer schools, which may be used as schemes of work, are available to schools on the Key Stage 3 Strategy website (www.standards.dfes.gov.uk/keystage3/publications) or from DfES Publications (see page 40). LEAs are being asked to help their schools become familiar with this guidance, and the associated teaching units, wherever possible. The catch-up programmes for English, six *Literacy Progress units*, and for mathematics, *Springboard 7*, have already been made available to schools.

2 General principles

The programme builds on the experience of summer schools in previous years by:

- identifying and preserving the best elements of current practice in summer schools;
- improving the continuity between the National Literacy and Numeracy Strategies in primary schools and the further development of literacy and mathematics skills at secondary level;
- providing continuous support for targeted pupils from the later stages of Key Stage 2 well into Key Stage 3.

The programme requires close co-operation between primary and secondary schools over:

- the use of assessment information to identify specific groups of pupils;
- shared expectations of what the pupils involved can and ought to achieve;
- the development of a shared understanding of teaching strategies and curriculum organisation;
- communication with pupils and parents.

3 The characteristics of successful summer schools

It is clear from evaluations of previous summer school programmes that the more successful schools made measurable improvements to pupils' English and mathematics skills through a focused programme of teaching, with clear objectives and carefully structured activities. Summer schools can also greatly improve pupils' attitudes to learning.

The following key factors determine the success of summer schools.

- The summer school should be coordinated by a teacher with expertise in literacy or mathematics.
- The staff of each summer school should include primary teachers as well as secondary teachers.
- Secondary schools should work closely with their partner primary schools at all stages of planning and teaching the summer school programme.
- There should be written schemes of work based on a limited number of key objectives from the Frameworks for English and mathematics.

- Dedicated time should be set aside for the teaching of literacy or mathematics, with extensive use of the key teaching approaches used in the Literacy Hour or daily mathematics lesson.
- All staff involved in the summer school should be trained to teach the scheme of work, and should be given guidance about their specific role.
- Challenging but achievable targets should be set for each pupil. These should be negotiated between the Year 6 teacher, the summer school coordinator and the pupil.
- Progress towards targets should be monitored throughout the summer school, and time built in to review the work of, and to give positive feedback to, individual pupils.
- There should be a system to record individual pupils' progress and reward achievement, which could contribute to Year 7 records.

The evaluations of the summer schools programmes revealed a number of other important features, which are highly desirable in future programmes.

- Schools need to be informed as soon as possible about summer school provision so that preparation, including training and primary school liaison, can start early.
- Summer schools are more successful where pupils have similar levels of attainment. If pupils with different levels of attainment are chosen, good differentiation is vital to ensure sufficient challenge is provided for all pupils.
- A significant proportion of teaching should be direct, interactive and well-focused, engaging pupils in work that is appropriately challenging. It should build on their acquired knowledge and skills and teach pupils to apply ideas to work that is progressively harder.
- Target setting should be based on diagnostic assessment of pupils' needs carried out by the Year 6 teacher and shared with the summer school coordinator and the pupils.
- Parents should be encouraged to contribute to their children's learning by supporting them at home and being aware of their children's targets. They should also ensure that their children's attendance is good.
- The summer school should have a system of recording and communicating with pupils and parents, e.g. a daily diary.
- The secondary school and its partner primary schools should give the summer school a high profile, e.g. a senior member of the secondary school staff should assist the coordinator and manage the day-to-day running of the summer school, to enable the coordinator to concentrate on planning the programme and organising the teaching.
- Clear links should be made with the catch-up programmes in Year 7 and the targets and progress of the pupils attending the summer school should inform their entry into the catch-up programmes.

4 Aims and objectives

Schools will be expected to follow the guidance in this document and to draw on the teaching units prepared for the summer schools. The organisers of summer schools need to know what they are setting out to do and to express their aims in clear terms.

These aims should include:

- a clear focus on what pupils, currently at level 3, need to achieve in order to reach the next attainment level in the National Curriculum English or mathematics. This will help both the selection of the pupils themselves and the content of the summer schools;
- a focus in both planning and teaching on how progress achieved in the summer schools can be maintained when pupils formally enter secondary schooling.

If these two criteria are met, it is more likely that summer schools will be successful in bringing pupils up to the required level and ensuring that they continue to make progress during Key Stage 3.

In order to raise standards in English, summer literacy schools in previous years were advised to base their schemes of work on objectives which would improve pupils' skills in reading, writing and spelling, such as:

- building up pace and accuracy in reading to access meaning and maintain sense;
- developing inferential skills in reading;
- using reading to model writing;
- securing their knowledge of spelling choices for medial vowel phonemes, e.g. required *(requiered);*
- writing complex sentences using subordination and a range of connectives, particularly in non-narrative writing;
- planning narrative structures, particularly conclusions;
- understanding how to use paragraphing and other organisational devices, e.g. bullets, insets, to structure text.

In order to raise standards in mathematics, most summer numeracy schools in previous years concentrated on teaching objectives covering the following areas:

- using symbols correctly, including less than (<), more than (>), equals (=);
- rounding any whole number less than 1000 to the nearest 10 or 100;
- using known number facts and place value to add or subtract mentally, including any pairs of two-digit numbers;
- knowing by heart all multiplication facts up to 10 $\times$ 10 and deriving the corresponding division facts;
- multiplying and dividing any whole number up to 10 000 by 10 or 100;
- developing appropriate vocabulary, e.g. thinking about the different ways questions in subtraction can be posed and the different contexts in which subtraction occurs;
- solving simple word problems involving addition, subtraction, multiplication and division.

5 Creating the right climate

In previous years, summer school staff have worked hard to create a welcoming environment for their pupils, with posters and display materials. Many schools made all their prime facilities available, including ICT suites, libraries, learning resource centres and sports facilities. Some summer schools provided areas for the pupils to relax in and play board games during break times.

In the words of one teacher involved in a previous programme, 'Summer schools create an ideal climate in which teaching and learning can flourish'.

Another teacher said, 'Although summer schools are short and intense they are above all enjoyable learning experiences where the commitment of both the pupils and staff can prove a very powerful combination. The fact that pupils and teachers are focused on a single task, uninterrupted by the demands of the full curriculum and the school day, means increased concentration and hard work.'

6 Management of summer schools

Senior managers in the secondary school need to take the lead in introducing and managing summer school programmes, including developing and evaluating them. Their success in doing so will depend crucially on the effectiveness of liaison established with partner primary schools.

It is important that the coordination of planning, teaching, learning and assessment is treated as a whole-school issue. Evidence from previous schemes shows that secondary schools that set up a single school management task group for planning both the summer school and the Year 7 catch-up programme, were more effective in meeting the aims of both initiatives.

In planning for summer schools the task group should:

- coordinate contact with partner primary schools;
- support the administration of the summer school;
- organise staff training for the summer school;
- track pupils through the summer school and into Year 7;
- plan a Year 7 catch-up programme for pupils who have attended the summer school;
- monitor and evaluate the overall programme.

The school task group should carry out the following functions:

A. ESTABLISH CLOSE CONTACT WITH PRIMARY SCHOOLS TO IDENTIFY AS EARLY AS POSSIBLE FOR SUMMER SCHOOLS:

- those pupils likely to transfer to secondary school with levels of attainment in English or mathematics below level 4;
- those pupils most likely to benefit from summer school provision, both in terms of levels of attainment and the likelihood of regular attendance;
- strengths and weaknesses in those pupils' abilities in English or mathematics;
- pupils' experience of the daily literacy or mathematics lesson;

- the potential for exploiting connections between the curriculum in Years 6 and 7, based on shared curriculum information;
- opportunities for secondary staff to visit primary schools to meet pupils and Year 6 teachers.

Secondary schools may find it helpful to send the sheet 'How primary schools can help' (page 38) to their partner primary schools.

B. ORGANISE AND RUN A SUMMER LITERACY OR NUMERACY SCHOOL THAT PROVIDES THE SELECTED PUPILS WITH:

- work planned against a limited number of key objectives drawn from the Frameworks for English and mathematics;
- well-focused curriculum content and a balance of activities such as those based on the teaching units provided for summer schools;
- teaching closely based on the organisation and teaching strategies recommended by the national strategies;
- target setting, assessment and rewards that motivate pupils to succeed.

C. SET CLEAR TARGETS FOR IMPROVEMENT:

- agree targets for improving standards for summer school pupils;
- translate these targets into curricular and learning targets for individual pupils;
- ensure that these targets determine medium- and short-term planning;
- make pupils aware of what they will be learning over defined periods of time and involve them fully in evaluating their progress;
- use the targets as the criteria for teachers' assessments;
- ensure that parents are informed about and, wherever possible, involved in setting and reviewing their child's targets.

D. ESTABLISH CLOSE LINKS WITH PARENTS TO:

- inform them about the programmes;
- involve them in assessing their child's needs;
- support and motivate pupils;
- secure support for homework activities;
- involve them in the programme wherever it is possible and appropriate.

7 Staffing the summer schools and training

In previous years the majority of summer schools employed at least one qualified teacher for every ten pupils.

Although most schools used the same staff throughout the summer school, in about 30% of schools some of the teachers changed. This discontinuity of staffing had a detrimental effect in some summer schools. This was particularly so where teachers worked for only a few days and therefore did not get to know the pupils well and could not make judgements about their progress. In effective summer schools, where there was a change of teachers, the coordinator established good planning and hand-over arrangements to ensure continuity.

The role of the summer school coordinator

The involvement of a summer school coordinator with extensive experience of teaching literacy or mathematics to lead the team has been a key factor in the success of summer schools to date. In the best summer schools these were teachers holding positions of responsibility in the secondary school, usually a head of, or second in department. These teachers were actively involved in teaching rather than administration.

The headteacher will need to provide the coordinator with the time to prepare and plan thoroughly for the summer school, including visiting partner primary schools taking part. It is helpful if the secondary school provides primary schools with some funding to release the Year 6 teacher to meet the summer school coordinator for essential tasks such as setting pupil targets. Key tasks for the coordinator include:

- planning the teaching time;
- time for evaluation and discussion;
- the deployment of staff.

Teaching staff

The summer school coordinator needs to be supported by a **core teaching team** that includes staff with experience and training in literacy or mathematics. Many schools have had experience of participation in literacy and mathematics development projects and family literacy and numeracy initiatives. Others have links with organisations such as the Basic Skills Agency. It is important to draw on such experience.

Summer schools should make staff aware of the opportunity to help with the summer school programme as early as possible so that time for training and planning can be built in. Most summer schools employ staff from both primary and secondary school backgrounds. Secondary teachers usually teach in the school's English or mathematics department, but in a few programmes the staff come from a range of departments, including modern languages, science, information technology and history.

The **role of primary school staff** is of vital importance. They bring up-to-date knowledge of the needs of many of the children attending the summer school. Their experiences of the National Literacy and Numeracy Strategies and of teaching the Key Stage 2 curriculum in primary schools are invaluable. They are aware of how children have been prepared for the transfer to secondary school and local liaison arrangements from a primary viewpoint. The chance to work with secondary colleagues is valuable, giving them an insight into the next stage of their pupils' education.

A balance of experience within the team is helpful. **Newly qualified teachers** can bring a freshness and enthusiasm to summer schools, which can prove invigorating for all concerned. **Retired staff** who are experienced in teaching English or mathematics, or with special needs teaching experience, can be a valuable extra resource to draw upon.

Support staff

All schools in previous years employed **support staff** who worked as teaching assistants. Those staff provided a wide range of support and teaching tasks, including:

- supporting catch-up programmes for individual pupils;
- leading a small group carrying out practical activities;
- helping a small group rehearse for a plenary by focusing on correct terminology;
- helping pupils to access learning through ICT.

It is also important that summer schools employ sufficient adults to ensure that teachers have a break at lunchtime.

LEA support

The **LEA's English and mathematics inspectors and advisers** have a key role to play in offering support and advice to the schools establishing summer school programmes. They can also play an important part in training staff and monitoring and evaluating the summer schools.

Key Stage 3 and primary consultants can play an important role in familiarising teachers with the summer school guidance and support materials.

LEA or other local authority support staff, such as educational psychologists, welfare officers, community and family learning specialists, play leaders and youth workers, were among those who gave advice and support in previous years.

Volunteer support

Suitable helpers, mentors and volunteers can come from many different sources, but they need to be identified, recruited and briefed as early as possible. In previous years some summer schools recruited staff from local businesses to support the development of particular children on a couple of days each week. Many schools have links with local colleges, teacher training institutions and universities. Students on teacher training courses, in particular, can gain valuable practical knowledge and experience. These students can also assist with ICT, practical sessions and activities. They can give time to individual pupils in terms of setting targets, reviewing and recording progress.

One of the most valuable volunteer resources can come from the secondary school itself. Virtually all summer schools used **older and former pupils** in a support role. These were usually pupils from Years 9 to 13 who were used as general helpers or for specific work, such as paired reading or mathematics investigations. They proved to be excellent tutors and very popular mentors. Summer schools that made the most effective use of older pupils often directed them to support one or two individual pupils on a regular basis.

It is important for the smooth running of the summer school that all volunteer helpers make specific and reliable commitments of time to the programme. They also need to be well briefed so they are fully aware of the contribution they are expected to make.

Training for summer school staff

All teachers, adults operating as tutors, and student helpers involved in any way with the teaching and organisation of the summer school programme will need specific training. This begins with the pooling of expertise and needs to be tailored to the roles people will play.

It is essential that a training strategy be put in place as soon as the key teachers for the summer school are identified and the range of volunteers agreed. The school hosting the summer school is responsible for this training, but it is clearly desirable for the LEA to have an input coordinating this as far as possible across a number of schools. The school may wish to devote a series of twilight sessions to training, or to release staff so they can attend a one-day training session which may be provided by the LEA.

All staff working on the scheme will need training in the teaching strategies that will underpin the development of the summer school and the planning of work that will help pupils achieve the next level in National Curriculum tests in English or mathematics. Staff will also need practical guidance about routines such as breakfast or refreshment breaks, or wet weather alternatives to sports activities.

It would also be helpful if, before the summer school begins, all tutors and helpers were to have direct experience of teaching literacy or mathematics with a similar age group, using the agreed teaching strategies. For example, secondary teachers might be able to take some time in the summer term to work with their own Year 7 pupils, as individuals or in small groups, to develop the techniques. Secondary teachers will also benefit from observing Year 6 pupils during a Literacy Hour or a daily mathematics lesson.

Teaching units for literacy and mathematics are available on the Key Stage 3 Strategy website (www.standards.dfes.gov.uk/keystage3/publications) or from DfES Publications (see page 40). Teachers will also find the training materials provided for primary schools by the National Literacy and Numeracy Strategies very helpful. All teachers should be given copies of the summer school teaching programme. Helpers need to know where they fit into the programme and, wherever possible, have their own copies.

8 Working with primary schools

Liaison with primary schools

Close liaison with primary schools is a key factor in successful planning of summer schools. It is essential that the summer schools build on achievement at primary level.

In most cases, summer schools funded through the Standards Fund will be based in LEA secondary schools and run for Year 6 pupils who will be joining secondary schools in September.

The evidence from previous years shows that summer schools bring positive opportunities for incoming pupils to get to know the expectations of the secondary school and become familiar with its geography, facilities and resources. They also give new pupils the opportunity to build relationships with some of the staff who will teach them, and with older pupils who can

help them. In this way transfer is made easier for pupils and their parents. To be most effective, close liaison between primary and secondary colleagues is essential, as is mutual support.

All secondary schools build on the work of their primary colleagues. Key Stage 1 and 2 class teachers carry demanding workloads and are responsible for planning curriculum, teaching, marking and record-keeping. The effective summer schools recognise all this.

The demands of the Year 7 curriculum will come as a major challenge to many primary pupils. They must be supported in that transition as effectively as possible. It is essential that there is continuity in their learning and time is not wasted going over work they have already mastered.

Liaison and participation

Most secondary schools have very good relationships with local partner primaries. This is often easier if most of the intake comes from just a few schools. Some secondary schools have more than 20 partner primary schools and others just two or three. The 'catchment' for the secondary school will raise issues of selection, liaison, transport, collection and timetabling, which all schools need to consider as part of their planning.

Personal contact between schools, and with potential pupils and their parents, is extremely important. This takes time. All coordinators should allocate sufficient time and resources to allow for this to be done as fully as possible (see case studies 1 and 2 below).

1 *In one summer school, the summer school coordinator approached each partner primary headteacher directly, and followed this up by personal contacts with the parents likely to be involved. Flyers, information leaflets and welcoming letters to parents were extremely successful in encouraging parents and pupils to take part. PTA meetings and induction evenings also provided obvious opportunities for discussing summer schools with parents.*

2 *Another school produced an information pack about the summer school which was sent to each primary school, followed by a personal visit from the summer school coordinator to talk through what was planned. Regular cluster group meetings of heads also took place to ensure that everyone was confident about the programme.*

When secondary schools prepare and plan for summer schools, it is essential they ensure that primary school staff are fully consulted and involved. Where summer schools recruited primary school staff to teach in the summer schools, their experience was invaluable, and the programme was stronger for it.

Allocation of places by the secondary school

If a large number of primary schools feed into the secondary school, it may be necessary to allocate a specific number of places to each school. Some schools may have more pupils at level 3 than other schools, and therefore

may need to be given more places. Schools should also consider whether pupils are likely to take up the offer of places and attend regularly during their holiday time. It is important that such factors are discussed early by all the schools involved.

9 Identifying target pupils

The experience of summer schools that ran in previous years was that the summer school was more effective if the recruitment of pupils was well targeted.

The target group

The summer school programme is targeted at 11 year olds who have reached level 3 in the Key Stage 2 National Curriculum tests and who have the potential, with the support of an intensive programme, to raise their performance to (or towards) level 4.

In previous years it has been clear that the opportunities the summer schools offer these pupils, the gains in self-confidence and self-esteem, are particularly important in enabling them to become more successful students.

Recruitment and attendance

Primary heads and Year 6 teachers know a great deal about their pupils. They are in the best position to recommend the most suitable pupils from all those who fit into this performance band.

Summer school coordinators, together with the primary schools involved, may also want to consider extra criteria for inviting pupils to take part. Each school has a particular context and, bearing in mind the nature of small-group dynamics, some secondary schools may wish to identify and invite pupils who are known to be:

- reliable attendees and highly motivated, and therefore likely to respond positively to the opportunity;
- unreliable attendees – pupils with weak motivation but who might respond to the privilege of selection;
- pupils who are withdrawn or overlooked in a classroom dominated by 'high flyers' and who may flourish in smaller groups;
- pupils for whom English is an additional language, but where performance could be boosted by increased opportunities to practise English and mathematics in smaller groups in a supportive atmosphere;
- children who are boisterous and aggressive and who might be helped by opportunities for quiet and intensive concentration on a fixed number of tasks;
- pupils who come from particularly needy backgrounds, with little support and who need some additional help.

Schools should make every effort to maximise attendance. However, it has not always been possible to recruit a full class of pupils. In these circumstances the school should tailor provision proportionate to pupil numbers.

Gathering information about pupils

The collection and use of baseline data on individual pupils is vital to effective planning and targeting of the summer school programme. Primary schools have a number of sources of information about pupils' levels of performance which are useful for different purposes.

For **selection of pupils**, measures of standards at the end of Year 6 are useful. These include:

- Key Stage 2 teacher assessment levels;
- any standardised test scores;
- any overall comments by Year 6 teachers about pupils' achievements and attitudes.

For **diagnosing pupils' strengths and weaknesses**, a range of evidence can be assembled:

- Key Stage 2 test scripts (if available on time);
- standardised test scripts and any pupil scores on sub-tests;
- any detailed profiles of pupils' work prepared by the Year 6 teacher either in transfer documents or specially prepared;
- for pupils for whom English is an additional language:
  - length of time in school,
  - amount of support received,
  - interruption to schooling,
  - literacy in other languages,
  - any other information about attainment levels in mathematics in their country of origin.

For evaluating the effectiveness of the programme, pre- and post-measures may give some indication of different types of progress. These could include:

- standardised test scores;
- measures of attitudes towards English or mathematics.

It is worth noting that HMI evaluations of literacy summer schools have pointed out that some schools spent too much time testing pupils during the summer school rather than spending valuable time teaching.

10 Planning the summer school curriculum

The intention of summer schools is to provide intensive, focused work in English or mathematics, to make much of it different from term-time school, and to create an environment where children will want to work hard and enjoy doing so.

In previous years, the key factors in good practice were:

- a clear scheme of work;
- a clear focus on literacy or mathematics, with emphasis on intensive work and enjoyable activities;
- good targeting;

- consistent monitoring and evaluation;
- well thought out and balanced incentives;
- good use of mentoring.

Teaching units for summer schools

To assist coordinators with planning for summer schools, teaching units for both literacy and mathematics are available on the Key Stage 3 Strategy website (www.standards.dfes.gov.uk/keystage3/publications) or from DfES Publications (see page 40). These units have been based on the revision objectives mentioned earlier and draw on the teaching approaches recommended by the national strategies.

Using the objectives from the Frameworks for teaching

The Literacy and Numeracy and Key Stage 3 Strategies underline the importance of teaching to clear objectives. The objectives in the Frameworks for teaching set appropriate expectations, provide teachers with a clear focus for planning and ensure progression for pupils.

The sections that follow set out objectives selected from the Frameworks linked to the analysis by QCA of pupils' weaknesses in Key Stage 2 tests.

Literacy objectives and QCA analysis

The QCA analysis of the English tests over the past two years shows a number of general characteristics linked to reading and, particularly, to writing. It shows that to move children from level 3 to level 4 in the English tests, they need to be systematically taught:

In reading:

- to build up pace and accuracy in independent, silent reading in order to maintain sense;
- to explain the precise meanings and effects of words as well as commending their use;
- to look across a text to see patterns, e.g. sequence, use of language effects;
- to explain the organisation and layout of texts;
- to identify the audience and purpose of a text;
- to generalise and make inferences by drawing on evidence in the text;
- to go beyond identifying language effects to explain how they work;
- to go beyond finding information in the text by explaining its relevance or implications;
- to use reading to model writing.

In writing:

- to apply spelling rules and conventions, e.g. consonant doubling, pluralisation, affixes;
- to recall and apply strategies to help them choose correct vowel formation;
- to develop more varied and complex sentences;
- to use the possessive apostrophe correctly;
- to pay more attention to the ending and thus the direction of the narrative;
- to develop the use of more formal, impersonal styles;
- to review and edit work for clarity and interest, organisation and purpose;
- to connect ideas at both text and sentence levels;
- to organise texts in other ways than by order of events;
- to understand the purposes and characteristics of non-fiction text types.

Boys' attainment in literacy

The impact of the national strategies has led to significant improvements in the reading attainment of boys but there is still considerable ground to be made up in writing. Teachers should assess the needs of boys as a target group in the summer literacy schools and catch-up programme, and adjust planning to meet those needs. They should try to:

- pay particular attention to boys in class and group sessions to ensure they are involved and contributing;
- give careful attention to the content of the task to ensure it is appropriate, e.g. boys often respond less well to imaginative writing but respond better where there is a clear purpose to the work, e.g. in non-fiction writing of instructions, explanations, arguments, etc;
- ensure that boys are challenged, that they succeed and that their successes are clearly acknowledged;
- keep boys on task in independent work and ensure that they do not leave work unfinished or lose track of the task because of distraction. They may need more short-term objectives to signpost their way through a task, with more targeted monitoring by the teacher to ensure that they see it through in reasonable time;
- make clear to the class at the start of the lesson what they are expected to learn and how it will be checked out later, e.g. *At the end of the lesson I will ask you to …*;
- help boys to evaluate their own learning, e.g. through getting them to explain how they did something, reflecting on their strategies (e.g. for retrieving or summarising information, spelling or reading a difficult word), periodic reviews of their work to assess progress, keeping personal logs or records, etc;
- make sure that boys' reading experiences are carried over explicitly into writing to help them structure sentences and sequence texts effectively.

Planning from the key literacy objectives

The objectives in the table which follows have been taken from the Year 7 key objectives in the final version of the Key Stage 3 *Framework for teaching English: Years 7, 8 and 9* including those objectives which are intended for consolidation. The teaching units, which are on the Key Stage 3 Strategy website, are based on a selection of these objectives. If summer schools do not wish to use these units, coordinators should write their own scheme of work based on a selection of these objectives that are most suitable for their pupils. It is important to note that evaluation of previous summer schools showed that teachers should give more emphasis to the development of pupils' writing including handwriting. They should be used for the summer schools and Year 7 catch-up programmes in at least the following ways:

- to assess the areas of greatest need for the pupils and highlight those that will be taught;
- to define teaching and learning targets over a short period of time;
- as a guide to focused planning and teaching;
- to ensure that the pupils know clearly in advance what they will be taught and to follow up teaching by evaluating its success with the pupils;
- to inform parents in advance about what their children will be taught, as a means of enlisting their support.

When **planning** from the objectives, teachers should take into account:

- the needs of the class in relation to each of the three strands of work;
- the need for an appropriate balance of reading and writing;
- the relative importance of writing, i.e. teaching spelling, punctuation, sentence construction and compositional skills;
- the specific needs of boys;
- the importance of reading and writing non-fiction;
- how reading will be used to structure writing activities.

Literacy key objectives

Year 7

Word level

Spelling

Pupils should revise, consolidate and secure:

1. **correct vowel choices, including: vowels with common alternative spellings, e.g. ay, ai, a-e; unstressed vowels; the influence of vowels on other letters, e.g. *doubling consonants, softening c*;**

Spelling strategies

To continue learning, constructing and checking spellings, pupils should be able to:

8. **recognise and record personal errors, corrections, investigations, conventions, exceptions and new vocabulary;**

Vocabulary

To continue developing their vocabulary, pupils should be able to:

14. **define and deploy words with precision, including their exact implication in context;**

Sentence level

Sentence construction and punctuation

Pupils should be taught to:

1. **extend their use and control of complex sentences by:**
   a) recognising and using subordinate clauses;
   b) exploring the functions of subordinate clauses, e.g. *relative clauses such as 'which I bought' or adverbial clauses such as 'having finished his lunch'*;
   c) deploying subordinate clauses in a variety of positions within the sentence;

Paragraphing and cohesion

8. **recognise the cues to start a new paragraph and use the first sentence effectively to orientate the reader, e.g. *when there is a shift of topic, viewpoint or time*;**

Stylistic conventions of non-fiction

13. **revise the basic stylistic conventions of the main types of non-fiction established in Key Stage 2:**
   a) *Information text*, which maintains the use of the present tense and the third person; makes clear how the information is organised and linked; incorporates examples;
   b) *Recount*, which maintains the use of past tense, clear chronology and temporal connectives;
   c) *Explanation*, which maintains the use of the present tense and impersonal voice, and links points clearly;
   d) *Instructions*, which are helpfully sequenced and signposted, deploy imperative verbs and provide clear and concise guidance;
   e) *Persuasion*, which uses sentence syntax to enhance and emphasise key points, and articulates logical links in the argument;
   f) *Discursive writing*, which signposts the organisation of contrasting points and clarifies the viewpoint expressed at every stage;

Standard English and language variation

15. **vary the formality of language in speech and writing to suit different circumstances;**

Text level – Reading

Research and study skills

Pupils should be taught to:

2. use appropriate reading strategies to extract particular information, e.g. *highlighting, scanning;*

Reading for meaning

8. infer and deduce meanings using evidence in the text, identifying where and how meanings are implied;

Understanding the author's craft

12. comment, using appropriate terminology on how writers convey setting, character and mood through word choice and sentence structure;

Study of literary texts

17. read a range of recent fiction texts independently as the basis for developing critical reflection and personal response, e.g. *sharing views, keeping a reading journal;*

Text level – Writing

Plan, draft and present

Pupils should be taught to:

1. plan, draft, edit, revise, proofread and present a finished text with readers and purpose in mind;

Write to imagine, explore, entertain

5 structure a story with an arresting opening, a developing plot, a complication, a crisis and a satisfying resolution;

Write to inform, explain, describe

10. organise texts in ways appropriate to their content, e.g. *by chronology, priority, comparison*, and signpost this clearly to the reader;

Write to persuade, argue, advise

15 express a personal view, adding persuasive emphasis to key points, e.g. *by reiteration, exaggeration, repetition, use of rhetorical questions*;

Write to analyse, review, comment

19. write reflectively about a text, taking account of the needs of others who might read it.

Speaking and Listening

Speaking

Pupils should be taught to:

1. use talk as a tool for clarifying ideas, e.g. *by articulating problems or asking pertinent questions*.

Listening

6. listen for and recall the main points of a talk, reading or television programme, reflecting on what has been heard to ask searching questions, make comments or challenge the views expressed;

Group discussion & interaction

10. identify and report the main points emerging from discussion, e.g. *to agree a course of action including responsibilities and deadlines*;

Drama

15. develop drama techniques to explore in role a variety of situations and texts or respond to stimuli;

Mathematics and the QCA analysis

The QCA analyses of the Key Stage 2 mathematics tests identify common weaknesses and difficulties experienced by pupils who fail to reach level 4. Teachers working on summer numeracy schools would find it useful to concentrate on the following topics:

Mental arithmetic

- adding and subtracting two- and three-digit numbers mentally;
- calculations involving conversion of metric units;
- multiplying numbers by 10 and 100, and answering questions like 60×40.

Number and algebra

- writing large numbers, ensuring pupils understand place value;
- calculations presented in a variety of ways
  - in horizontal or vertical format
  - in and out of context
  - in written and verbal format;
- understanding and using multiplication as the inverse of division;
- completing division involving remainders;
- 'open' number sentences involving division, such as $527 \div \square = 31$, so that they come to appreciate that dividing by 'the answer' gives the missing term;
- decimals beyond the contexts of money and measures;
- working with fractions, including locating fractions and decimals on the number line;
- calculating fractional and percentage parts of quantities; understanding percentage as *the number of parts per hundred*, e.g. that 40% means 40 parts per hundred and that it is equivalent to the fraction 40 over 100;
- estimating the answers to calculations before working them out.

Solving numerical problems

- developing strategies for problem solving such as thinking about different ways of approaching problems;
- developing logical written explanations for a range of simple mathematical statements in addition to verbal explanations.

Shape, space and measures

- calculations involving seconds, minutes and hours; reading and using an analogue clock;
- using rulers and protractors to measure and draw angles and lines accurately;
- reading numbers and measurements from scales in a variety of contexts;
- calculating perimeters of shapes and applying their knowledge to shape problems;

- solving area problems beyond counting squares, e.g. where pupils need to know that right-angled triangles are half rectangles;
- becoming familiar with angle facts e.g. that a quarter turn is a right angle and recalling the sum of angles at a point.

Handling data

- interpreting and using information from tables or charts.

Use of calculators for the B paper

- recognising when it is helpful to use a calculator and knowing how to use a calculator efficiently;
- deciding which mathematical operation and method calculation (mental, written or calculator) to use to solve problems;
- keying in numbers which have been converted to decimals, e.g. those involving time.

General

- using informal written methods to help pupils calculate and to underpin the development of more compact methods;
- developing strategies for solving multi-step problems;
- explaining and refining their thinking.

Use of language

- using precise geometrical terms (specific terms that caused difficulties included *pentagon, parallelogram, isosceles* and *scalene*).

Mathematics objectives

RECEPTION TO YEAR 6

The Primary Framework will help teachers to choose objectives when they are preparing teaching plans for use on summer numeracy schools. The Framework provides yearly teaching programmes and objectives. The table which follows sets out a summary of key objectives from the Framework that are most likely to be effective in raising pupils' attainment to level 4.

SUMMARY OF KEY OBJECTIVES FOR MATHEMATICS

Numbers and the number system

Place value, ordering and rounding

- Read and write numbers in figures and in words.
- Multiply and divide mentally whole numbers and decimals by 10 or 100 and explain the effect.
- Order a given set of positive and negative integers, or decimals with up to two places.
- Round a decimal to the nearest whole number.

Calculations

Rapid recall of addition and subtraction facts

- Recall addition and subtraction facts up to 20.
- Recall decimals that total 1 (e.g. 0.2 + 0.8) or (e.g. 6.2 + 3.8).
- Recall two-digit pairs that total 100 (e.g. 43 + 57).

Mental strategies

- Add and subtract mentally any pair of two-digit numbers.
- Use known number facts and place value to consolidate mental addition and subtraction (e.g. 470 + 380, 7.4 + 9.8, 9.2 – 8.6).
- Calculate mentally a difference such as 8006 – 2993.
- Know that an addition fact can be reinterpreted as a subtraction fact and vice versa.

Pencil and paper procedures for addition and subtraction

- Carry out column addition and subtraction of positive integers less than 10 000.
- Carry out column addition and subtraction of numbers involving decimals.

Understanding multiplication and division

- Understand and use division as the inverse of multiplication.
- Begin to express a quotient as a fraction or a decimal.
- Round up or down after division, depending on the context.

Rapid recall of multiplication and division facts

- Know by heart all multiplication facts up to 10 $\times$ 10 and derive quickly corresponding division facts.
- Derive quickly doubles of whole numbers 1 to 100, doubles of multiples of 10, e.g. 670 $\times$ 2, doubles of two-digit numbers, e.g. 3.8 $\times$ 2, 0.76 $\times$ 2.
- Recall square numbers, including squares of multiples of 10, e.g. 60 $\times$ 60.

Mental calculation strategies

- Use known facts, place value and a range of mental calculation strategies to multiply and divide mentally.

Pencil and paper procedures for multiplication and division

- Carry out multiplication of HTU $\times$ U and then numbers involving decimals.
- Carry out long multiplication of TU $\times$ TU.
- Carry out division of TU by U.

Fractions, decimals, percentages, ratio and proportion

- Recognise the equivalence between the decimal and fraction forms of one half, one quarter, three quarters, etc. and tenths and hundredths.
- Find simple fractions of numbers or quantities.
- Use decimal notations for tenths and hundredths.
- Relate fractions to division and to their decimal representations.

- Understanding percentage as the number of parts in every hundred and find simple percentages of small whole number quantities.
- Solve simple problems involving ratio and proportion.

Solving problems

Problems involving 'real life', money and measures

- Use all four operations to solve word problems involving numbers and quantities based on 'real life', money and measures (including time), explaining methods and reasoning.

Handling data

Data handling

- Solve a problem by extracting and interpreting information presented in tables, graphs and charts.

Measures, shape and space

Measures

- Suggest suitable units and measuring equipment to estimate or measure length, mass or capacity.
- Use, read and write standard metric units including their abbreviations and relationships between them, e.g. km, m, cm, mm, kg, g, l, ml.
- Measure and draw lines to the nearest millimetre.
- Use a protractor to measure and draw acute and obtuse angles to the nearest degree.
- Understand area measured in square centimetres (cm^2); understand and use the formula in words 'length x breadth' for area of a rectangle.
- Calculate the perimeter and area of simple compound shapes.

Shape and space

- Recognise line symmetry in 2-D shapes.
- Recognise where a shape will be after a reflection or a translation.
- Read and plot co-ordinates.

11 Pupil target setting and assessment

Teachers working in summer schools should set literacy or mathematics targets for pupils. Ideally, these should be set in conjunction with primary teachers and be available just before the pupils begin summer school. These targets may be appropriate for a whole class, or a group, but in some cases will need to be set for an individual pupil.

Teachers can use a range of evidence to establish pupils' strengths and weaknesses, such as:

- their Key Stage 2 test scripts;
- samples of work;
- profiles of pupils' work prepared by the Year 6 teacher;
- standardised test scripts and any pupil scores on sub-tests;

- individual or group targets to which the pupil has been working;
- for pupils speaking English as an additional language, details of the length of time they have been in school, the support they have received, their stage of English acquisition, and their literacy or mathematical skills in other languages.

The following actions should be taken to support target setting in summer schools:

- identify with staff what a teacher can do to help a pupil to focus on the aspects he or she needs to improve;
- support pupils in identifying targets, help them identify specific aspects where there is a need to improve;
- agree how to recognise when the targets have been achieved, e.g. in what ways the pupil's work will be different;
- agree a challenging but realistic deadline by which the target should be achieved;
- agree a brief plan of action with the pupil(s), e.g. a list of things for the pupil(s) to do – in class and independently in school or at home. The plan should be sensitive to pupils' needs and circumstances;
- record the targets and action plan for the teachers, the pupil, and his or her parents. This will help teachers to plan teaching objectives, and aid discussions with pupils, parents and teachers;
- monitor and review progress towards the targets (plan a formal time for this – at least at the start and finish of the summer school);
- keep parents informed of progress and encourage their support;
- recognise and reward achievement: small rewards count for a lot, e.g. a letter to parents, a merit award, a certificate, display of 'work of the week', stickers, small prizes, or a congratulatory chat with the teacher.

Teachers working in summer schools should aim to:

- set general targets applicable to all pupils in a given performance band, such as targets arising from specific learning objectives identified in the scheme of work for the whole group;
- review pupils' progress against their personal targets on a daily or weekly basis (some of these targets may be the same as others in the group and some may be different): this is particularly important if there are to be changes of staffing in the course of the summer school;
- maintain clear records of each pupil's targets and progress;
- make parents aware of the targets set, and help them to monitor and support their children through work done at home;
- improve pupils' motivation by including some quantifiable targets, e.g. reading three books by the end of the summer school and writing reviews on these; learning how to spell ten words with medial vowel phonemes; knowing the 7, 8 and 9 times tables by heart and using them; being able to add or subtract mentally any pair of two-digit numbers.

Pupils should be involved in setting the targets. This can have a powerful impact on motivation and help them to reflect upon their own learning.

Example of target setting for Andrew at a summer literacy school

The summer school coordinator visited the primary school several times during the summer term to talk to the Year 6 teachers about literacy targets for the pupils attending the summer school and to talk to the pupils themselves. The coordinator examined pupils' work and the Key Stage 2 test scripts, as well as reading the Year 6 teachers' comments about each pupil that they had prepared for the transfer documents.

Before the end of term, targets were negotiated for each pupil by the Year 6 teachers in co-operation with the summer school coordinator and the pupils. These were written on a 'Personal Targets Sheet', which the pupils brought with them to summer school and copied into their literacy diaries. The summer school coordinator had a master list of each pupil's targets, which she circulated to teachers and helpers before the summer school began.

Andrew had problems with his writing. He wrote mainly in simple sentences or long rambling compound sentences joined by the words **and** or **then**. His spelling was weak, particularly in words with long medial vowels.

His personal targets were:

I will try not to write long sentences joined by **and** *or* **then** *and use some other examples, which I have written in my diary.*

I will learn how to spell five words from my spelling investigation each day.

The summer school coordinator made sure that Andrew concentrated on spelling investigations associated with long vowel phonemes. She also ensured that Shared and Guided Writing sessions focused on writing complex sentences, giving pupils some model sentences to use as examples. The model sentences were written into pupils' diaries. The daily spelling investigation session, which the teacher introduced, included long vowel phonemes. Andrew and other pupils in his group were supported by a classroom assistant when working on the group investigations which followed the whole-class investigation. Andrew's parents were aware of his targets and helped him practise his spelling and writing at home.

Example of target setting for Nasreen at a summer numeracy school

This summer numeracy school organised the pupils into four groups of seven. While the rest of the group worked on multiplication facts, the teacher spoke individually to each child about his or her strengths and difficulties with mathematics, and why they wanted to attend the summer school.

With a prepared list of short questions on different topics to act as a checklist, the teacher aimed to negotiate targets. Each child was eventually given six targets, and presented with a typed version to include in their folder.

Nasreen's list was as follows:

By the end of the two weeks I will:

1. Be able to do my times tables up to 10 × 10.
2. Be able to check that my answers look about right.
3. Be able to understand and use the appropriate mathematics words.
4. Know the number bonds to 20.
5. Be able to multiply a two-digit number by a one-digit number.
6. Subtract two two-digit numbers in my head.

The summer school had established in detail the teaching programme for the first week only, in order to respond more flexibly to their pupils' needs. At the end of each day staff met to discuss the next day's activities in the light of that day's progress. At the end of the summer school, teachers discussed with each pupil individually the progress they had made towards the identified targets. For each target, pupils were asked to indicate, on a scale of 1 to 10, how well they felt they thought the target had been achieved. Where opinions differed, further discussion ensued. Finally, teachers discussed strategies with pupils as to how they could continue to make progress, and how to ensure that knowledge gained during the summer school was retained.

Nasreen graded her progress against her six targets as follows:

8, 5, 10, 6, 9, 3

and wrote of the last of these, 'I still find that a bit hard'. In discussion with Nasreen the teacher was positive and supportive about her progress, and suggested strategies for continued progress at subtraction and number bonds.

12 Teaching strategies

Almost all pupils transferring from primary school to secondary school will have experience of the National Literacy and Numeracy Strategies. Staff involved in summer schools should include those familiar with the primary National Literacy and Numeracy Strategies and the English and mathematics strands of the Key Stage 3 National Strategy. The lessons in all the Strategies strike a careful balance between whole-class, group and independent work. The key objectives in this guidance should be central to the planning and teaching. Teachers should use these as teaching targets and assessment criteria. They should make these objectives clear to pupils so that they are aware of what they should be learning as this will enable them to contribute to the evaluation of their own progress.

Staff may find it especially helpful to visit primary schools to see the Literacy Hour or daily mathematics lesson in action, and perhaps to assist in teaching it.

Summer school teachers who have adopted the principles of a Literacy Hour or the daily mathematics lesson have found that:

- pupils quickly become accustomed to the routines and expectations;

- pupils respond well to the clear and tight structure of the lesson, and the pace of activity;
- teachers are able, through direct teaching and demonstration, to make clear to pupils the key features of the lesson.

Teaching strategies for summer literacy schools

Teachers are advised to use the features recommended by the national strategies when teaching pupils in a summer school and also to make use of lessons from the six *Literacy Progress Units*, which form the basis of the Year 7 catch-up programme. The teaching units, which are on the Key Stage 3 Strategy website include lesson plans for ten days. However if schools decide to run a shorter summer school they may wish to select appropriate lessons from the ten lessons available.

The recommended strategies include:

- A starter;
- Shared Reading and Shared Writing;
- Guided Reading and Writing;
- pupils working independently in groups or as individuals;
- Word and Sentence Level work involving direct teaching of spelling, grammar and punctuation;
- plenary sessions to reinforce teaching points.

This involves a balance of whole-class direct teaching, which includes Shared Text Work and Sentence or Word Level Work. This may well be followed by group work when the teacher focuses on teaching a different group each day, in a guided session, and the rest of the class work independently as individuals, or in pairs or groups. The session ends with a plenary. National Curriculum Key Stage 2 tests showed that writing is much weaker than reading. Teachers may be justified in spending more time teaching Shared and Guided Writing, although the units of work will contain sessions covering both Shared Reading and Writing. The purpose and content of each element is described in more detail below.

The Starter lasts approximately ten minutes in a one hour whole class session. It is fast, focused and highly interactive in style. It is intended to get the lesson off to a flying start by focusing pupils' attention and getting them all involved. It also creates space for 'little and often' teaching and is ideal for spelling, vocabulary and some sentence work. It need not be directly linked to the main lesson.

Shared Reading using an extract from a common text, e.g. a 'big book' or enlarged text, is a whole-class activity. It should be used:

- to teach comprehension skills, e.g. making generalisations from the text; reading 'between the lines' to infer, speculate or draw conclusions; linking texts to personal experience; analysing and evaluating texts; discussing how authors use figurative language (images, metaphors, etc.) for effect; and learning how to refer to the text to support and justify conclusions;
- as a teaching model to structure and support children's writing.

Shared Writing should be used to teach composition skills collaboratively with a whole class, and should draw directly on work covered in Shared Reading by using known texts as: models for writing; starting points for

extension work; subjects for comment and evaluation; sources for retrieval, summary, speculation and generalisation. Composition strategies should cover:

- the outline planning of texts, e.g. plotting a story; setting out and sequencing a report, explanation or argument;
- handling narrative and non-narrative texts;
- the use of formal and informal language;
- paragraphing and other organisational and layout devices;
- sentence construction (subordination and coordination);
- punctuation, particularly speech punctuation and the use of commas.

Shared Writing should also be used as a context for teaching sentence level objectives, applying spelling strategies, conventions and rules, and developing proof-reading skills.

Guided Reading with groups should focus on developing pupils' skills to read independently with understanding. Working in ability groups of four to six, pupils should have individual copies of the same text, which should be carefully selected to match the needs of the group.

Guided Reading sessions have a similar format:

- The teacher introduces the text, and sets the purpose for reading, e.g. reminding pupils of strategies and cues which will be useful, or asking them to gather particular information.
- Pupils read independently, problem-solving their way through the text. More fluent readers will read silently. The teacher is available to offer help when it is needed and then guides the pupils to appropriate cues, e.g. use of syntax, picture cues, initial letter.
- The teacher discusses the text with the pupils, drawing attention to successful strategies and focusing on comprehension, referring back to the initial focus.

It is recognised that some teachers in summer schools will not be familiar with the strategies used in Guided Reading and may not have suitable texts which offer an appropriate level of challenge to the group. The information from the primary schools will be essential when allocating pupils to groups according to their abilities. In previous summer schools, some teachers took the extract used during the Shared Reading with the whole class, and explored it in more detail with a small group of pupils to consolidate understanding. As pupils had already read the text, along with the teacher in the shared session, this did not fulfil the criteria for *Guided Reading* listed above. However, this form of teacher-supported reading can also be helpful for some pupils in a summer school if appropriate texts are not available, or if certain pupils need to revisit the shared text. With more fluent readers, the teacher should focus on extending the pupils' abilities to understand what they are reading. They should be taught to read between the lines, to deduce and to support their deductions with evidence from the text.

Guided Writing with groups should focus on reviewing and revising pupils' independent writing. During group teaching, teachers will be justified in giving more emphasis to Guided Writing than Guided Reading to maximise opportunities for feedback, reflection on and evaluation of the composition

strategies taught through Shared Writing. Regular sessions should be planned to work with groups on writing in progress, giving attention to clarity, fitness for audience and purpose, complex sentence structure, precision and consistency, agreement in use of tenses and person, and to proof-reading and editing for correctness. Three sequences for teaching Guided Writing are described in the National Literacy Strategy flyer 4, *Writing in the Literacy Hour*.

Direct teaching of spelling, grammar and punctuation will take place as a whole-class activity in Shared Reading and Writing (during Sentence Level work) and as a group activity in Guided Writing. Many of the difficulties pupils encounter in writing are the result of an inadequate grasp of Word and Sentence Level skills and strategies. Many of these objectives (e.g. the teaching of spelling rules and conventions) can be handled quickly, efficiently and enjoyably with pupils in an interactive whole-class setting. Pupils should be actively involved through making and sorting collections of words, expressions, spelling patterns, etc, and explaining rules and conventions that govern the patterns.

Use activities like re-ordering sentences, constructing and joining sentences or their parts, substituting alternative words with the same grammatical functions (e.g. changing or strengthening verbs, deleting and adding pronouns, inserting adjectives) and examining the impact on clarity and meaning.

When teaching the above elements teachers should be employing these strategies:

- **directing** – to ensure pupils know what they should be doing, to draw attention to key points, to develop key strategies in reading and writing;
- **demonstrating** – to teach pupils how to read punctuation using a shared text, how to use a dictionary;
- **modelling** – to provide writing frames for shared composition of non-fiction texts;
- **explaining** – to provide reasons in relation to the events in a story, to recognise the need for grammatical agreement when proof-reading and the way that different kinds of writing are used to serve different purposes;
- **questioning** – to probe pupils' understanding, to cause them to reflect and refine their work and to extend their ideas;
- **initiating and guiding exploration** – to explore relationships between grammar, meaning and spelling with pupils;
- **investigating ideas** – to understand, expand on and generalise about themes and structures in fiction and non-fiction;
- **discussing and arguing** – to put points of view, argue a case, justify a preference;
- **listening to and responding** – to stimulate and extend pupils' contributions, to discuss and evaluate their presentations.

Teaching strategies for summer numeracy schools

Teachers working in summer numeracy schools will spend a high proportion of their time in direct teaching, providing lessons that are oral, interactive and lively.

Consolidating mental calculation (both oral and written)

A 10-minute oral and mental starter at the beginning of a daily one-hour session can be used to practise recall and application of number facts. Oral and mental starters should be pacey, interactive and focused. They should get sessions off to a good start, getting all pupils actively involved. In some sessions teachers should set aside a substantial part of the time to teach and practise mental strategies.

Ensuring that pupils understand and use mathematical vocabulary

Teachers should make sure pupils have a good grasp of mathematical vocabulary. Pupils should understand key mathematical terms and notation and use them correctly in both oral and written work. The vocabulary in the National Numeracy Strategy booklet *Mathematical Vocabulary* will be helpful.

Giving pupils practice in interpreting questions

Teachers should focus on both the mathematical vocabulary and the language typically used in mathematics questions and check that pupils can read key words. Pupils need to be taught how to tackle word problems set in context and to recognise which arithmetical operations are required to be performed in the calculation. They should be able to decide whether they need a calculator, or whether it is quicker to do the calculation in their heads or use written methods.

Using errors from previous work as key teaching points

This is key in assessing what pupils know, and planning subsequent work to move learning forward to raise standards. Teachers on summer schools could discuss common errors with children.

At the end of each session, deal with any common misconceptions, emphasise the main learning points and assess pupils' progress. Work with pupils to sort out misconceptions, identify progress, summarise the key facts and ideas, and clarify what is to be remembered. Discuss the next steps and set work to do at home.

In all work, teachers should aim to draw on a range of teaching strategies:

- **directing and telling:** sharing your teaching objectives with the class, ensuring that pupils know what to do, and drawing attention to points over which they should take particular care …
- **demonstrating and modelling:** giving clear, well-structured demonstrations: for example, modelling mathematics using appropriate resources and visual displays …
- **explaining and illustrating:** giving accurate, well-paced explanations, and referring to previous work or methods: for example, explaining a method

of calculation and discussing why it works, giving the meaning of a mathematical term …

- **questioning and discussing:** questioning in ways which match the direction and pace of the session to ensure that all pupils take part; using open and closed questions, skilfully framed, adjusted and targeted to make sure that pupils of all abilities are involved and contribute to discussions; asking for explanations; giving time for pupils to think before inviting an answer; listening carefully to pupils' responses and responding constructively in order to take forward their learning; challenging their assumptions and making them think …
- **exploring and investigating:** asking pupils to pose problems or suggest a line of enquiry, to investigate whether particular cases can be generalised …
- **consolidating and embedding:** providing varied opportunities to practice and develop newly learned skills, through a variety of activities in class and well-focused homework; asking pupils either with a partner or as a group to reflect on and talk through a process; inviting them to expand their ideas and reasoning, or to compare and then refine their methods and ways of recording their work …
- **reflecting and evaluating:** identifying pupils' errors, using them as positive teaching points by talking about them and any misconceptions that led to them; discussing pupils' justifications of the methods or resources they have chosen …
- **summarising and reminding:** reviewing during and towards the end of a session the mathematics that has been taught and what pupils have learned; identifying and correcting misunderstandings; inviting pupils to present their work and picking out key points and ideas …

13 The structure of summer school sessions

Sessions for summer literacy schools

Schools are free to organise the structure of summer literacy schools to suit the needs of the targeted pupils. Some examples might be:

- a ten day summer literacy school which uses the teaching units on the Key Stage 3 website;
- a five day summer literacy school which exclusively targets level 3 writers who are mainly boys and draws on the literacy teaching units focusing on a limited number of key objectives on writing;
- a ten day joint literacy and numeracy summer school with alternating half days on literacy and numeracy making use of appropriate elements of the Support materials for Summer numeracy and literacy schools.

Whatever the organisation of the summer literacy school, it is important that the following elements are included:

- a balance between whole class, group and individual work;
- opportunities for teachers to work with pupils intensively (e.g. guided sessions);
- a strong element of lively, interactive, direct teaching;
- a plenary which involves all the pupils in considering what they have learned.

Teachers are encouraged to make use of existing materials such as the *Literacy Progress Units* for summer schools which are on the Key Stage 3 Strategy website and an appropriate *Literacy Progress Unit* from the six made available to secondary schools.

Sessions for summer numeracy schools

Schools can organise the structure of summer numeracy schools to suit the needs of the targeted pupils. Some examples might be:

- a conventional ten day summer numeracy school, using the existing *Support materials for Summer numeracy schools*, available on the Key Stage 3 Strategy website (www.standards.dfes.gov.uk/keystage3/publications) and from DfES Publications (see page 40);
- a five day summer numeracy school with a small group of pupils who attained level 3 at the end of Key Stage 2, targeting mental calculation strategies and solving numerical problems;
- a ten day joint numeracy and literacy summer school with alternating half days of numeracy and literacy making use of appropriate elements of the Support materials for Summer numeracy and literacy schools.

Whatever the organisation of the summer numeracy school, it is important that the following elements are included:

- a clear focus on a limited number of key objectives;
- opportunities for teachers to work with pupils intensively;
- a strong emphasis on lively, interactive, direct teaching;
- a plenary which involves all pupils in considering what they have learned.

For conventional ten day summer schools, the following structure for organising each day could be adopted.

Session 1 (8.30-9.00)

Focus: Introduction to the day

Arrival with drinks

Playing traditional mathematical games such as dominoes, snakes and ladders, ludo, draughts, cards.

Registration

Introduction to the day:

- review of pupils' achievements on previous day;
- pupils reflect on what they learned and record in diary;
- teacher outlines key elements of the day and what pupils will be taught, e.g. objectives.

Session 2 (9.00-9.30)

Focus: Teaching mental calculation strategies

Whole class:

- counting on and back (e.g. from 3 in steps of 5);
- mental calculation strategies;
- recall of facts;
- building new facts from old;

- multiplication and division by 10, 100, 1000;
- place value and ordering;
- estimating, rounding and approximating.

Session 3 (9.30-10.15)

Focus: Rehearsing number facts using games and activities

Independent paired, small group or individual work:

During this session teachers should give focused help to individual pupils or small groups to help them catch up.

Start with class demonstration of activity and repeat change of activity. Examples could be:

- table-top board games with dice;
- card games, e.g. the 24-game;
- number puzzles or investigations;
- Integrated Learning Systems (ILS) work on calculations;
- computer-based investigations or puzzles;
- worksheet activities.

Morning break (10.15-10.45)

Session 4 (10.45-11.45)

Focus: Key objectives

Three-part lesson with whole class. The lesson will have:

- an introductory session;
- a main teaching activity with group work where appropriate;
- a plenary session.

The teaching plan will be based on key objectives.

12-15 lessons will be provided on five or six topics.

Session 5 (11.45-12.30)

Focus: Rehearsing number facts using games and activities

The session is similar in structure to Session 3. Different activities to Session 3 should be provided.

Independent paired, small group or individual work.

During this session teachers should give focused help to individual pupils or small groups to help them catch up.

Start with class demonstration of activity and repeat at change of activity.

Examples could be:

- ILS work on calculations;
- computer-based investigations or puzzles;
- table-top board games with dice;
- card games;
- number puzzles or investigations;
- worksheet activities.

Lunch (12.30-1.30)

Session 6 (1.30-2.00)

Focus: Keeping sharp mental strategies and facts

Mental and oral starter session

Whole class

This session will build on Session 2 from the morning, giving pupils opportunities to remember and use facts from previous teaching. There should be at least three activities, one of which should aim to help pupils visualise shapes, patterns and movements.

Session 7 (2.00-3.30)

Focus: Informal mathematical activities

Over the summer school the planned activities could include:

- ICT using the computer suite;
- outdoor and indoor co-operative games using the gym or the field, e.g. sports activities involving timing and measuring;
- model-making session with measuring and construction;
- cookery;
- TV educational broadcasts (mathematics programmes);
- mathematics trails;
- data handling;
- visits to places of interest focusing on mathematics in the environment or the work place, e.g. supermarket, bank;
- outside speakers.

Teachers could operate this $1\frac{1}{2}$ hour session as two or more shorter carousel sessions.

Joint Literacy and Numeracy summer schools

If a school wishes to run a joint literacy and numeracy summer school they can do so. However, it is recommended that the school runs alternate half-day English and mathematics sessions with each subject sharing morning and afternoon sessions. The pupils would then take part in two very focused direct teaching sessions, involving whole-class and small group work, which should give them a taster of what to expect in Year 7.

The content of an English session in a joint summer school might include:

- the whole class session (1 hour);
- the first lesson from the selected Literacy Progress Unit (20 minutes);
- a guided group session (20 minutes);
- break (15 minutes);
- the second lesson from the selected Literacy Progress Unit (20 minutes);
- mentoring and personal review time (20 minutes);
- plenary for the session (10 minutes).

As standards in writing in the majority of schools are lower than standards in reading many schools would be well advised to choose lessons from the Literacy Progress Units which focus on writing.

Teachers should note that pupils will need 18 twenty-minute sessions in order to cover a Literacy Progress Unit.

The content of a mathematics session in a joint summer school should include:

- introduction to the session (5 minutes);
- teaching mental calculation strategies (30 minutes);
- a three-part lesson with whole class (1 hour);
- break (15 minutes);
- rehearsing number facts using games and activities to include focused help for individual pupils sharp (40 minutes);
- keeping sharp mental strategies to include opportunities to remember and use facts from previous teaching (15 minutes).

The support materials in the *Guidance for Summer Numeracy Schools* provide ideas and resources to support these sessions. Each set of materials is sufficient for a conventional ten-day summer numeracy school. You will need to select material for the half-day mathematics sessions carefully to ensure an appropriate balance of coverage of the objectives.

14 Working with parents

Initial contacts

Experience suggests that schools will get best results from sending a personal invitation to parents inviting them to attend a meeting supported by the primary schools. In previous years some schools have included parents in these discussions as part of 'new parents and pupils' evenings at the secondary school. Many summer schools produce user-friendly information for parents and pupils. Some schools also brought in home-school liaison workers, community education staff and youth workers to help explain the purpose of the summer school to parents and pupils.

Once parents are committed, summer school coordinators may find it useful to set up a 'Summer School Contract' with parents. These signed contracts can explain the aims and objectives, outline mutual responsibilities and create an opportunity for a family commitment to monitoring homework and progress. They also enable summer school coordinators to gather relevant medical details, get permission for visits, etc, at the same time.

Participation during the summer school

In previous years, summer schools found that most parents were very pleased about the extra chance being offered to their children and keen to help in any way they could. Summer schools should make parents aware of target setting and monitoring and the importance of sharing English or mathematics work at home with their child. Using tried and tested techniques from primary schools, teachers can prepare, in advance, short advice booklets for parents, carers and family members on how to support children with their literacy or mathematics work. Most importantly, by providing this practical support on a daily basis during the summer, parents will be better prepared to help their child in their new school.

Once the summer schools are up and running, many parents will support the incentives and rewards which schools can build in as part of the whole experience. In previous years some schools enlisted parents to help on-site during the summer schools. Parents frequently helped with sports, cultural or social activities, and provided extra help, when it was needed, with visits. However all summer school organisers should note that anyone expected to help directly with literacy or mathematics work needs to have some specific training for the role.

15 Rewards and sponsorship

Incentives and rewards

In previous years, summer schools have generally been very successful at devising and using incentives and rewards. These can promote regular attendance, progressive achievements and completion of homework, and be used as prizes in celebrations at the end of the summer school. Each school devised a different system of rewards, designed to help pupils to identify with the school. Certificates, stickers, prizes, trips, activities and celebrations were used to mark individual and collective achievements, often supplemented through local or national sponsorship.

Partnership with local business and community organisations

Partnerships with local businesses and other community organisations add value to summer schools, initiating and building links outside the school. They also help to demonstrate to pupils the importance that the wider world of work and the community attaches to good literacy and numeracy skills.

Most summer schools found willing partners. These included local businesses and local branches of national enterprises like banks, building societies, fast food chains and supermarkets. Members of the local community were very happy to offer help in cash or kind for prizes and rewards, or to sponsor aspects of the summer schools. Several national companies also gave their support.

16 Monitoring and assessment

Testing of pupils

All summer schools should consider setting up some form of diagnostic assessment of pupils' literacy or mathematics skills **immediately before** the summer school begins, drawing on information provided from Year 6. In previous years, many summer schools set tests at the beginning and end of the summer school. These frequently used parts of National Curriculum Key Stage 2 testing procedures for English or mathematics. However, the HMI and regional directors' evaluations pointed out that it is important to concentrate on teaching during the summer school and not waste valuable teaching time administering tests.

Visits to summer schools

It is hoped that staff from the LEA's inspection and advisory service will undertake monitoring visits to each of their summer schools and that these visits will review:

- staff preparation and planning;
- organisation of the summer school;
- the quality of the teaching programme;
- links with the Year 7 catch-up programme.

It is also hoped that LEAs will continue to monitor the progress of the pupils who attended the summer school throughout the linked Year 7 catch-up programme across the following school year.

Regional directors from the Key Stage 3 Strategy will visit a sample of summer schools in each region.

17 Summer schools – how primary schools can help

To be effective, it is essential that summer schools build on pupils' achievement in Year 6. Your help, therefore, is a key element in successful planning of summer schools.

Identifying target pupils

As primary heads and Year 6 teachers, you know the pupils most likely to benefit from a summer school, in terms of supporting progression in their learning.

Within the target group of Year 6 pupils who have reached level 3 in the Key Stage 2 national tests you might want to identify:

- pupils who are likely to be reliable attendees, be well motivated and respond positively to the opportunity to attend a summer school;
- pupils who are unreliable school attenders but might respond to the privilege of selection for a summer school;
- pupils who respond well to challenges and immediate goals;
- quiet pupils who may flourish in smaller groups;
- pupils who are boisterous and who might be helped by opportunities for quiet concentration in smaller groups;
- pupils for whom English is an additional language (EAL pupils), where performance could be boosted by increased opportunities to practise English and mathematics in smaller groups in a supportive atmosphere;
- disadvantaged pupils for whom some additional help will make a real difference.

Setting targets for improvement

Pupils will make more effective progress in summer schools if the summer school teacher has a clear expectation of what pupils can and ought to achieve. The information you can provide on pupils' strengths and weaknesses will be invaluable. This could include:

- pupils' Key Stage 2 test scripts;
- samples of work;
- individual or group targets to which the pupil has been working;
- information on EAL pupils, such as the length of time they have been in school, the support they have received, their stage of English acquisition, their literacy skills in other languages, their attainment in mathematics in their country of origin.

Setting targets can have a powerful impact on motivation and help pupils reflect on their own learning. They can be involved in setting their own targets by:

- using self-assessment review sheets;
- helping them to identify specific aspects where there is a need to improve;
- agreeing a plan of action including a realistic deadline.

Developing curriculum links with secondary schools

The links we establish between primary and secondary schools are extremely important. We hope that we can plan together:

- opportunities for secondary teachers to visit primary lessons to meet Year 6 pupils and their teachers;
- ways of making curriculum links in Years 6 and 7 focusing possibly on transition units.

18 Bibliography

These documents give further information on the topics described.

DfES

The National Literacy Strategy, *Framework for teaching* (DfEE, March 1998) NLFT

The National Numeracy Strategy, *Framework for teaching from Reception to Year 6* (DfEE, March 1999) NNFT

The National Numeracy Strategy, *Mathematical Vocabulary* (DfEE, March 1999) NNSMV

National Foundation for Education Research, *The Evaluation of the 1998 Summer Schools Programme, Summary Report* (DfEE, December 1998) NFERSSP

A little reading goes a long way: Helping with your children's reading (DfEE, September 1998)

Learning to read and write at home and at school (DfEE/Basic Skills Agency, December 1998) LRWHS

Learning about mathematics at home and at school (DfEE/Basic Skills Agency, November 1999) LAMHSH

Key Stage 3 National Strategy *Framework for teaching English: Years, 7, 8 and 9*. (DfEE April 2001) Ref. DfEE 0019/2001

Key Stage 3 National Strategy *Framework for teaching mathematics: Years, 7, 8 and 9*. (DfEE April 2001) Ref. DfEE 0020/2001

Literacy progress Unit: *Writing organisation* (DfEE June 2001) Ref. DfEE 0473/2001

Literacy progress Unit: *Information retrieval* (DfEE June 2001) Ref. DfEE 0474/2001

Literacy progress Unit: *Spelling* (DfEE June 2001) Ref. DfEE 0475/2001

Literacy progress Unit: *Reading between the lines* (DfEE June 2001) Ref. DfEE 0476/2001

Literacy progress Unit: *Phonics* (DfEE June 2001) Ref. DfEE 0477/2001

Literacy progress Unit: *Sentences* (DfEE June 2001) Ref. DfEE 0478/2001

Springboard 7: A mathematics catch-up programme for pupils entering Year 7 (DfEE June 2001) Ref. DfEE 0049/2001

The publications above are available from:
DfES Publications
PO Box 5050
Annesley
Nottingham
NG15 0DJ

Tel: 0845 60 222 60
Fax: 0845 60 333 60
Textphone: 0845 60 555 60

E-Mail: dfes@prolog.uk.com

Centre for School Standards

The National Literacy Strategy, *Literacy Training Pack* (DfEE, May 1998)

The National Numeracy Strategy, *Professional Development Materials 1 and 2* (DfEE, May 1999)

The National Numeracy Strategy, *Professional Development Materials 3 and 4* (DfEE, December 1999)

The publications above are available from:
Publications
Centre for School Standards
60 Queens Road
Reading
RG1 4BS

Tel: 0118 902 1062/1063
Fax: 0118 902 1434

E-Mail: I&n@cfbt-hq.co.uk

QCA

The National Numeracy Strategy: *Teaching Mental Calculation Strategies* (QCA 1999) QCA/99/380

The National Numeracy Strategy: *Standards in Mathematics: Exemplification of Key Learning Objectives from Reception to Year 6* (QCA 1999) QCA/99/364

The National Numeracy Strategy: *Teaching Written Calculation* (QCA 1999) QCA/99/486

The publications above are available from:
QCA Publications
PO Box 99
Sudbury
Suffolk
CO10 6SN

Tel: 01787 884444
Fax: 01787 312950

E-Mail: QCA@prolog.uk.com

OFSTED

The Key Stage 3 Strategy: evaluation of the first year of the pilot (OFSTED, February 2002)

The publications above are available from:
OFSTED Publication Centre
PO Box 6927
London E3 3NZ

Tel: 07002 637 833
Fax: 07002 693 274

E-Mail: freepublications@ofsted.gov.uk
Website: www.ofsted.gov.uk

Basic Skills Agency

What Works in Secondary Schools? (Basic Skills Agency, 1998)

Improving Boys' Literacy, Graham Frater (Basic Skills Agency, 1997)

The publications above are available from:
Basic Skills Agency
PO Box 270
Wetherby
West Yorkshire LS23 7BJ

Tel: 0870 600 2400
Fax: 0870 600 2401

E-Mail: basicskills@210.press.net

Other

Extending Literacy: Children Reading and Writing non-fiction, David Wray and Maureen Lewis, (1997)

The Effective use of Reading, Lunzer and Gardner, (1979)

Websites

The Standards Site, DfES: **www.standards.dfes.gov.uk**

Key Stage 3: **www.standards.dfes.gov.uk/keystage3**

The National Literacy Trust: **www.literacytrust.org.uk**