

## Recommendations

### Continuing Professional Development (CPD)

Regular participation in CPD is a basic professional requirement. Each school should identify key school and individual CPD needs. These identified needs should dictate CPD course choice.

Course providers need to ensure that each course offered is directly relevant to education and that their suite of courses provides adequate coverage of literacy and numeracy.

### Teachers

Calculators should be an integral part of maths lessons from Fourth class onwards. Used correctly, they can enhance pupil learning.

Maths lessons need to reflect modern teaching methods, particularly in relation to problem-solving (which remains a weak area for pupils). Problems should be used to teach broad mathematical concepts, and pupils should be encouraged to discuss *how* they solve problems. Collaborative approaches to problems may help to maintain girls' interest in maths.

Teachers should direct more attention at developing pupils' higher-order comprehension skills in reading and their ability to explain their thinking.

Assessment *for* learning should be a feature of every classroom, with good practice shared at school-level.

### School Management

Schools, led by principals, need to develop a more integrated approach to additional support for pupils, facilitating in-class provision where possible.

Schools should make more use of individual- and school-level data from standardised tests. Aggregated test data should be used to identify strengths and weaknesses across grade levels and curricular areas.

School and class libraries should contain a balance of fiction and non-fiction texts. This may make reading more appealing for boys and for senior grades.

All parents should receive verbal and written feedback on their child's performance. In the case of standardised

tests, this should include reference to national norms.

### ICT

Schools need to integrate technology into the classroom. Teachers should have access to ICT courses and to products that support innovative methods of teaching (rather than simply re-packaging traditional content in a visually appealing form).

### Parental Awareness

The DES needs to initiate a campaign to improve parental awareness of what they can do to support literacy and numeracy in the pre-school years. This can be supported at local level by schools.

### The Curriculum

Any future changes should promote pupil self-regulation of comprehension strategies at all class levels for reading. The maths curriculum should provide greater clarity for teachers on what is meant, in practical terms, by the social constructivist approach it espouses. Better identification of core cross-curricular skills might help address curriculum overload.

## More Information

The results of NA 2009 are described in **The 2009 National Assessments of Mathematics and English Reading** (Eivers, Close et al., 2010). Download or purchase the report from [www.erc.ie](http://www.erc.ie). Alternatively, phone the ERC on 01-8373789.

See [www.erc.ie/NA2009](http://www.erc.ie/NA2009) for more information.

The National Assessments website also contains:

- sample test items.
- copies of all questionnaires used (including the percentage of respondents supplying various answers).
- the frameworks on which the assessments were based.
- additional technical and statistical detail.

# The 2009 National Assessments of Mathematics and English Reading

Educational Research Centre

Foras Taighde ar Oideachas

Prepared for the Department of Education and Skills  
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## About National Assessments

Ireland has a long history of National Assessments in primary schools, with the first one taking place in 1972. The 2009 National Assessments of Mathematics and English Reading (NA 2009) are the most recent in this series. The main functions of National Assessments are to assess national “standards” (e.g., for reading and maths), identify factors related to performance on the tests, and inform policy.

Up to 2009, maths and reading were assessed separately at different grade levels. In 2009, the same pupils completed both tests. This meant that the target grades had to change. Second and Sixth classes were chosen, as they represent the end of the junior and senior cycles of primary school education. The grade change means we cannot draw any conclusions about recent trends in reading and maths standards. Instead, NA 2009 provides baseline data for future National Assessments.

## The 2009 Assessments

Almost 8,000 pupils, split between Second and Sixth class, took part in NA 2009. The pupils were in 150 randomly selected schools. The study used new test materials devised by the ERC (where the *Drumcondra tests* are developed). Questionnaires were also completed by school principals, class teachers, pupils, and their parents. The questionnaires provide background information that helps in understanding how pupils performed on the tests. The tests are confidential, but you can see some sample questions (and all the questionnaires) at [www.erc.ie/NA2009](http://www.erc.ie/NA2009).

**Reading:** At Second class, girls outperformed boys overall, and on all content strands and process skills, but there were no gender differences at Sixth class. Pupils did relatively poorer on questions assessing their ability to *Interpret & Integrate*, especially at Sixth class.

**Maths:** There were no gender differences on overall maths test scores at either grade, although, at Sixth class, boys did better than girls on *Measures*. Performance on *Apply & Problem-solve* and *Measures* was poor, relative to other areas, especially at Sixth class.

## Factors Linked with Achievement

Similar factors were linked with achievement across grade level and across reading and maths. Also, background factors tended to show stronger links with achievement than school and teacher factors.

### Home and Pupil

Higher test scores were linked with high familial socioeconomic status (SES), while lower scores were linked with large family size, parental unemployment, membership of the Traveller community, lone parent family, and speaking a language other than English/Irish at home.

Achievement was also linked with a number of other factors that are more amenable to change. Pupils with plenty of books and educational resources in the home tended to do well on the tests, while those who had a TV in their bedroom or who spent excessive time on the internet/gaming tended to do poorly.

Other factors positively linked with test scores included parental confidence in assisting with homework, frequency of parents' own reading, pupil value and enjoyment of reading, and maths self-concept.

### Classroom and School

Teacher characteristics linked with higher test scores included teaching experience, additional qualifications, and infrequent use of tablebooks (for maths) and workbooks (for reading). Pupils in larger classes performed slightly better than those in smaller classes. However, this was due to the fact that DEIS/SSP schools tend to have smaller class sizes.

Test scores tended to be higher in schools with high attendance rates, a high SES enrolment, and with few pupils in receipt of language or learning support.

## Other Findings

**Teachers:** All teachers in the study were qualified, and most had considerable teaching experience. A large minority had not experienced any Continuing Professional Development related to English or maths in the previous three years.

**Additional Support:** In the vast majority of cases, additional support was provided outside rather than within a pupil's classroom.

**Use of Technology:** Regular use of computers and/or calculators in lessons was rare. Interactive whiteboards, where available, were used relatively frequently, provided that they were located in the classroom, and not in a central room.

**Unusual Schools:** In some schools, scores on one test were much better than on the other. DEIS/SSP schools were over-represented in schools where reading was a strength (relative to maths). In contrast, rural and small schools were over-represented in schools where maths was a strength. Only a few schools performed noticeably higher or lower than would be predicted from the SES of their intake.

**Resources at Home:** Almost all Sixth class pupils had a quiet place to study, a computer and a games console at home, while well over half had a TV in their bedroom. However, roughly 10% had fewer than 11 books in their home.

**Parental Awareness:** A sizeable minority of parents seemed to have limited understanding of their child's performance in school – e.g., just over half of Sixth class pupils rated as good at reading by their parents could display only very basic reading skills.

**“Newcomer” Pupils:** Most of the 14-15% of pupils who were born outside Ireland spoke English at home. The 3-7% of pupils who did **not** do so did very poorly on reading, but only slightly below average on maths.