



The response of the Association of Teachers of Mathematics (ATM) to the publication of The Independent Review of the Primary Curriculum, December 2008 (the Rose report)

ATM notes the publication of this report and acknowledges it as a useful contribution to the on-going debate about the primary curriculum in our schools.

ATM welcomes:

- A review of the curriculum that is based on the needs and aspirations of learners, rather than on the convenience of end-of-key-stage national testing
- The recognition of the three curriculum domains of affects, processes and concepts, though notes that, some 20 years ago, the then National Curriculum Council was advised by ministers to reduce the 3 profile components (that equated to these domains) in the (then) emerging National curriculum
- The inclusion of mathematical understanding as one of the six areas of learning. This emphasis on the need to develop pupils' mathematical understanding accords well with the recent conclusions of Ofsted. [In *Mathematics: understanding the score* (2008), Ofsted stated that 'The fundamental issue is how better to develop pupils' mathematical understanding'.]
- The move toward a cross-curricular approach to learning, providing opportunities to develop and apply knowledge, skills and understanding in a wide range of contexts
- The commitment not to keep adding to the curriculum but to seek some reduction. It has long been a belief of ATM that the mathematics curriculum is over-burdened with content, the consequence of which has been inadequate in-depth exploration of mathematical ideas and the development of mathematical understanding
- The inclusion of references to mathematical literacy emphasising that, in order to learn mathematics well, it is vital to develop confidence and competence in communicating in the language of mathematics
- The commitment to reviewing the EYFS and the statutory curriculum together in future as a means of improving continuity and progression. Given this commitment, ATM hopes that there will be a progressive shift toward harmonising the areas of learning in EYFS and primary education
- The call for QCA to work with bodies such as subject associations 'to validate essential knowledge, skills and understanding and attitudes' (recommendation 5)
- The call for children to be able to select and apply ICT to advance their learning across the curriculum

ATM is concerned:

- That the Report persists in referring to numeracy, as opposed to mathematics. This does not reflect recent changes that have emphasised the importance of the need to use the term 'mathematics' in order to ensure that all aspects of mathematics to which pupils are entitled are given appropriate attention in the primary curriculum
- That the report quotes ACME on key ideas in mathematics without going into the detail that ACME provided to the inquiry. It quotes ACME's recommendation that the mathematics curriculum should include 'place value and the number system, conservation of number and measures, equivalence relations and dimensionality'. A lack of justification for this particular selection makes it appear to be arbitrary and has the potential to be confusing. It is important that primary teachers are given guidance that speaks to them in language with which they feel comfortable because, as Ofsted (ibid) states, 'many primary teachers require deeper subject knowledge'
- That the report expresses a commitment to continue with end of KS2 tests because, with the shift of emphasis implied in this report, teachers will find increasing conflict and tension between providing rich, engaging and worthwhile learning experiences whilst at the same time having to present pupils for tests that do not reflect the nature of the curriculum being taught
- That the report does not make a strong enough statement about giving Y1 teachers the freedom to make informed decisions about how to teach, based on their informed assessments of individual pupils' needs. The recent Williams report is more helpful on this, suggesting that 'familiar approaches to children's mathematical education should be maintained in Year 1, and Year 1 teachers should be encouraged to increase opportunities for active, independent learning and learning through play, as in the EYFS, to ensure a continuation of positive attitudes to mathematics. Mathematical experiences should be threaded across the different areas of learning, in role-play, construction, and in indoor and outdoor learning. Children's understanding should be developed using practical resources and should make links with other learning so that mathematics is meaningful and relevant'. ATM hopes that the final report will harness the recommendations of other enquiries, such as that undertaken by Sir Peter Williams, in order to present teachers with a clear, coherent and agreed set of guidelines

ATM is aware that there are huge implications for teacher development in what the report proposes. Teacher subject associations such as ATM have much to offer. Though the curriculum proposed may not be expressed through the language of subjects, a deep knowledge of, and confidence in, mathematics is needed in order to encourage children's own learning journeys and to help them build their own mental maps, both within the area of learning and across them.

ATM welcomes the invitation to respond to this interim report before 28 February 2009 and will be preparing further observations, comments and reflections.

George Knights
Hon Secretary, ATM
10 December 2008