

**THE HIGHLAND COUNCIL**  
**EDUCATION, CULTURE AND SPORT COMMITTEE**  
**November 2011**

Agenda Item	10.
Report No	ECS/55/11

**Curriculum for Excellence**  
**Highland Numeracy Strategy**

**Report by Director of Education, Culture and Sport**

**SUMMARY**

To equip our pupils for life in the 21<sup>st</sup> century, it is vital that, as leaders of learning, teachers truly recognize the importance of numeracy and its place in the curriculum. **All** teachers have a responsibility to promote and develop numeracy for all young people.

The Highland Numeracy Strategy highlights the 'essential elements' which are required, in both primary and secondary schools, to support the development of numeracy at individual and school level. It provides a framework against which schools are encouraged to evaluate their current practice and to plan for future developments.

The Strategy is organized in five sections, these mirroring the five broad areas of HMIe's *Journey to Excellence*:

- o vision and leadership;
- o learning and teaching;
- o culture and ethos;
- o people; and,
- o partnership.

In addition to defining the 'essential elements' for developing numeracy in each school, the Strategy provides a wealth of very helpful resources which derive from schools in Highland and beyond. Practitioners are encouraged to explore and use these resources to support the development of numeracy across the curriculum within their own schools.

**1. Introduction**

1.1 The Curriculum for Excellence Numeracy Across Learning Principles and Practice Paper states:

*"Numeracy is not only a subset of mathematics; it is also a life skill which permeates and supports all areas of learning, allowing young people access to the wider curriculum."*

One of the five main priorities for Highland schools, as defined by the Education Service, is for attainment to be improved in literacy and numeracy. The Numeracy Strategy clarifies the authority's expectations of how schools can achieve this improvement in attainment through embedding numeracy within the curriculum of every class.

## **2. The Numeracy Strategy framework**

2.1 *Vision and Leadership*: this section is primarily aimed at senior managers to allow them to take a strategic approach to numeracy development. It provides a range of resources to support the strategic development of numeracy e.g. school numeracy action plans; examples of numeracy policies etc.

2.2 *Learning and Teaching*: this section is aimed at nursery, primary and secondary practitioners. It highlights the essential features which should be evident within a high quality numeracy classroom in terms of learning, teaching and assessment. It provides a wealth of resources to support classroom practitioners e.g. examples of numeracy programmes; planning formats; guidance on challenging young mathematicians etc

2.3 *Culture and Ethos*: this section highlights the importance of everyone – teachers, pupils, parents - having a very positive attitude to numeracy. It provides resources which allow staff and pupils to see the importance of numeracy within the 21<sup>st</sup> century curriculum.

2.4 *People*: this section highlights the need for everyone within a school and associated school group i.e. senior managers, teachers, support staff etc, to work together to plan for the development of numeracy. It provides resources which support teachers beyond mathematics departments to assume their responsibility for numeracy teaching.

2.5 *Partnership*: this section highlights the need for schools to work with parents and people in the local community to develop numeracy learning and teaching and for numeracy learning to take place beyond the classroom. It provides examples of resources which schools have used to support parents and others within the community to become involved in numeracy development.

## **3. Key Messages from the Numeracy Strategy:**

### **3.1 Vision and Leadership**

Each school must:

- Establish a policy for numeracy which aligns with the school's vision and values, is contributed to and understood by all staff and clearly details expectations in achievement, learning and the curriculum.
- Formulate a plan of action, as part of the school's improvement plan, which details how this policy will be implemented across the school.
- Establish a numeracy group [and, if possible, a numeracy coordinator] to lead developments. Within the secondary sector, give appropriate consideration to the composition of this group.
- Ensure a clear understanding of the importance of numeracy by all staff and that they all have a responsibility for ensuring pupils acquire numeracy skills for life, learning and work.
- Ensure appropriate systems are in place to track pupils' progress and achievement in numeracy.

### 3:2 Learning and Teaching

Each school must:

- Promote the importance of numeracy to pupils.
- Ensure consistent implementation of the Highland Council *Learning, Teaching and Assessment Policy* in relation to all numeracy lessons across the school.
- Ensure clear agreement of the progression of the skills of numeracy – within the school and across the Associated School Group to ensure effective curricular transitions in numeracy at all stages.
- Ensure quality time is given to the teaching and learning of core skills in numeracy.
- Ensure that pupils have opportunities to learn in relevant and rewarding contexts.
- Ensure that staff use the numeracy experiences and outcomes to plan learning throughout the broad general education and that particular course outcomes are the focus of learning in the Senior Phase.
- Ensure that tasks and activities over time provide appropriate **breadth** of learning, **challenge and application**.
- Ensure that technology is a key tool for learning and teaching in numeracy e.g. through use of computer programmes, graphing calculators, interactive geometry software, spreadsheets, interactive presentation devices etc.
- Ensure that staff provide learners over time with a balance of numeracy activities which include opportunities for collaborative, co-operative and independent learning.
- Ensure that staff take account of prior learning so that learners can make choices and decide what to do, how to do it and who is going to do it.
- Ensure that staff share the key learning purpose of each numeracy activity with pupils at the outset and that is reviewed at the end of each lesson.
- Ensure staff have the opportunity to share learning and teaching strategies with practitioners from other sectors i.e. secondary with primary; primary with nursery.

### 3.3 Culture and Ethos

Each school must:

- Promote a positive attitude to numeracy amongst all staff, pupils and parents.
- Make numeracy learning fun.
- Ensure numeracy has a high profile throughout the school e.g. displays which show quality work.
- Ensure pupils experience regular success in numeracy and that this is celebrated in class / school.
- **Raise the bar in numeracy** - set appropriately high standards for all.
- Give pupils responsibility for their numeracy learning e.g. pupils make decisions about moving onto more challenging examples.
- Encourage risk-taking for pupils and teachers to inspire innovation and creativity - errors are learning opportunities.

### 3.4 **People**

Each school must:

- Give clear consideration to each staff member's role in leading numeracy learning i.e.:
  - each member of Senior Management and Extended Management Team;
  - each member of School Numeracy Group;
  - each teacher; and
  - all other staff working within classroom environment.
- Provide opportunities for staff to engage in quality continuing professional development which focuses on improving their own confidence and competence in teaching numeracy.
- Involve staff within the school and the wider ASG in professional dialogue where they share and reflect on practice, including methodology and the language of numeracy.
- Encourage pupil reflection about their learning in numeracy and take account of their views when planning future learning opportunities / activities.

### 3.5 **Partnership**

Each school must:

- Keep parents informed of numeracy developments.
- Consider how best to report each pupil's progress in numeracy to parents e.g. in secondary, how best to summarise information from various departments.
- Encourage parents to contribute and take an active role in promoting numeracy at home e.g. at the infant stages, use the setting of the table as a numeracy game or use timetables to reinforce time intervals for older pupils.
- Improve parental confidence in numeracy in order to help support their children's learning e.g. by leading support sessions where parents' numerical skills can be refreshed.
- Be proactive in looking for opportunities within the local community to develop numeracy e.g. using local shop / supermarket for reinforcing monetary values and financial education.
- Promote real-life contexts for learning by involving different community members and businesses e.g. invite bank staff to school to reinforce key financial education messages.
- Make use of the outdoor environment to enhance numeracy skills e.g. using co-ordinates to plot orienteering route.

**4. RECOMMENDATION**

4.1 Members are requested to note and comment on the Highland Numeracy Strategy

Signature:

Designation: Director of Education, Culture and Sport

Date: 31 October 2011

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Ref: