

Report

Report to:	Education Resources Committee
Date of Meeting:	7 May 2019
Report by:	Executive Director (Education Resources)

Subject:	Numeracy Update (Broad General Education)
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1. Purpose of Report

1.1. The purpose of the report is to:-

- ◆ provide an update on aspects of Numeracy in South Lanarkshire Council schools within the Broad General Education (BGE) and
- ◆ inform of next steps with regards to support for Numeracy within the BGE

2. Recommendation(s)

2.1. The Committee is asked to approve the following recommendation(s):-

- (1) that the progress made with the numeracy curriculum and proposed further developments for session 2019/2020 be noted.

3. Background

3.1. Developing functional numeracy is an essential life skill and is both a National and a local priority for education.

3.2. The numeracy curriculum sits within Curriculum for Excellence as part of the Broad General Education (BGE) and is guided by the Principles and Practice papers and Experiences and Outcomes. These papers have recently been supplemented with guidelines published by Education Scotland around assessment and Benchmarks.

3.3. In order to drive forward developments in numeracy within South Lanarkshire Council, there is a dedicated Lead Officer (LO) who has a strategic remit around numeracy and is assisted by a Numeracy Support Officer (NSO).

3.4. At school level, "lead teachers" have been identified locally to help take forward the numeracy strategic priorities.

3.5. Progression pathways have been developed at Early, First and Second level for schools. These pathways link the Experiences and Outcomes to the Benchmarks and provide schools with a framework to ensure their courses have sufficient pace, challenge and appropriate assessment. Work has begun to develop pathways for Third and Fourth level.

4. Attainment in Numeracy at the BGE in South Lanarkshire

4.1. Children and young people throughout their Broad General Education (P1-S3) are assessed regularly to ensure they are making expected progress. Each year, teachers at P1, P4, P7 and S3 stages report on the "Curriculum for Excellence" levels that have been achieved by their pupils. These teacher judgements are based

on a range of evidence and are moderated within and between schools. The table below shows the progress children are making, year on year, towards achieving their expected levels.

Percentage of pupils achieving expected CfE levels in Numeracy

	Numeracy						15/16 to 17/18	
	National			SLC				
Stage	15/16	16/17	17/18	15/16	16/17	17/18	Nat (+/-)	SLC (+/-)
P1	83.9	83.4	84.7	83.0	85.9	87.3	0.8	4.3
P4	73.1	74.8	75.8	71.2	74.6	75.6	2.7	4.4
P7	67.8	70.5	74.8	67.8	74.1	74.1	7.0	6.3
S3 Third	85.8	88.2	89.0	86.1	89.7	91.2	3.2	5.1
S3 Fourth	49.1	55.7	56.1	50.9	55.6	60.9	7.0	10.0

- ♦ The percentage of pupils achieving the expected levels of attainment is above the National average at Primary 1 and Secondary 3 and is almost the same at Primary 4 and Primary 7.

- ♦ There has been a steady increase in attainment at all stages since 2015/2016.

5. Work within the West Partnership Regional Improvement Collaborative (RIC)

- 5.1. The Lead Officer for numeracy represents South Lanarkshire Council on the “Making Maths Count” West Partnership Mathematics Development Group. The purpose of the group is to gather and share effective practice across the eight local authorities within the West Partnership RIC to help inform school, local, regional and national approaches and strategies.
- 5.2. The RIC has successfully planned and hosted two Mathematics and Numeracy conferences. These events showcased good practice. Evaluations of these events were very positive, with 93% of delegates evaluating this year’s event overall as Excellent or Very Good. There was significant analysis of delegate knowledge pre and post workshop which demonstrates that the workshops increased delegate knowledge in all cases.
- 5.3. In September 2018, staff from the West Partnership attended a full day conference on ‘Teaching mind-set mathematics through open, creative mathematics and brain science messages’, delivered by Dr Jo Boaler, Professor of Mathematics Education at Stanford University and Cathy Williams, co-founder and co-director of ‘youcubed’. South Lanarkshire Council was approached by the Winning Scotland Foundation, the organisation responsible for organising the event at Murrayfield. As a result of these discussions, Calderglen High School, East Kilbride will now work with Winning Scotland to develop an on-line training module on positive mind-set in mathematics linked to this event.

6. Next Steps

- 6.1. The Numeracy Support Officer role is crucial in ensuring the successful conclusion of the collaborative work with the RIC and in progressing the strategic priorities in Numeracy. The focus is increasingly on providing direct support and challenge to schools receiving funding through the Scottish Attainment Challenge Schools Programme and in continuing to close the poverty-related attainment gap in numeracy.

6.2. Over the coming year, and in line with one of the key priorities for Education Resources, which is to raise standards in numeracy to close the poverty related attainment gap, the following will be taken forward:-

- ♦ progression pathways will be completed for Third and Fourth level Mathematics and Numeracy to replicate the pathways already developed at Early, First and Second level
- ♦ guidance for schools in creating and implementing a clear Mathematics and Numeracy curriculum will be delivered through the Curriculum Guide being developed by the CQIS Curriculum Team
- ♦ the role of the Numeracy Co-ordinator will continue to be developed at Numeracy Co-ordinator events, held twice per year. These events will continue to up-skill our staff and encourage professional collaboration
- ♦ the 'How Good Is OUR School?' resource, published by Education Scotland, will be used to strengthen pupil voice in Numeracy and Mathematics. Training will be provided through the Numeracy Co-ordinator events and follow-up training within establishments
- ♦ Data will continue to be gathered in specific Numeracy and Mathematics interventions to measure the impact these interventions are having on the attainment of the children and young people involved
- ♦ Mathematics and Numeracy pedagogy will continue to be strengthened through the development of identified training approaches. These will be tailored to suit the needs of establishments
- ♦ work will be undertaken with Mathematics Departments in secondary schools in relation to BGE courses and the transition to the senior phase. This work will build upon the work already started within the Primary sector
- ♦ aspects for improvement which will be highlighted in the publication of the findings of the Numeracy and Mathematics Thematic Review, currently being conducted by Education Scotland, will be taken forward as appropriate

6.3. A range of the numeracy and mathematics programmes, which are impacting on the development of both outcomes for learners and on the continuing professional learning for staff, is outlined in Appendix 1.

7. Employee Implications

7.1. None

8. Financial Implications

8.1. Funding to facilitate the work of the Numeracy Support Officer (NSO) will continue to be provided through the Scottish Attainment Challenge Schools Programme.

9. Other Implications

9.1. There are no significant risk implications in terms of the information contained within this report.

9.2. There are no implications for sustainability in terms of the information contained within this report.

10. Equality Impact Assessment and Consultation Arrangements

10.1 This report does not introduce a new policy, function or strategy or recommend a change to existing policy, function or strategy and therefore, no impact assessment is required.

10.2. There was no requirement to undertake any consultation in terms of the information contained within this report.

Tony McDaid
Executive Director (Education Resources)

10 April 2019

Link(s) to Council Values/Ambitions/Objectives

- ◆ Improve achievement, raise educational attainment and support lifelong learning
- ◆ Ensure schools and other places of learning are inspirational

Previous References

None

List of Background Papers

None

Contact for Further Information

If you would like to inspect the background papers or want further information, please contact:-

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South Lanarkshire Council Education Resources, supported by Psychological Services, is working collaboratively with East Dunbartonshire Council to implement a Mathematics intervention programme called Maths Recovery. Maths Recovery is a long established early intervention programme and is used to advance the numerical ability of learners at all levels with a particular focus to design and implement an approach that reduces the poverty related attainment gap in numeracy through identifying and analysing children's numerical knowledge, skills and strategies. Schools with high numbers of pupils living in SIMD 1 and 2 combined with high FME entitlement and low performance in achievement of CFE levels in Numeracy were identified to take part in the research.

Two staff from each of the six schools involved in the project have been trained in the Maths Recovery programme, at Primary 1 and Primary 4. These schools have been provided with resources to help them implement the methodology and have been supported by the NSO to complete diagnostic assessments. These assessments help identify pupil strengths and areas for development in numeracy. A further round of data collection will be conducted in May/June to measure the initial impact of the project. This will support the planning, implementation, resourcing and assessment of the Maths Recovery programme.

Catch Up® Numeracy continues to be a popular intervention adopted by schools across South Lanarkshire with 73 Primary schools and 18 Secondary schools, including 2 ASN, having trained staff between November 2016 and March 2019. Catch Up® Numeracy is a structured one-to-one intervention for learners who find numeracy difficult and involves 15-minute individual sessions delivered twice a week. It is grounded in academic research and addresses 10 key components of numeracy. It is designed for use with struggling learners aged 6-14, rather than beginner learners. A total of 253 Primary staff and 95 Secondary staff have been trained in this intervention with an ever increasing demand. The majority of staff trained, especially in the Primary sector, are support staff.

Catch Up® training is delivered across SLC by a specially trained headteacher. However to meet the increasing demand for training from schools the NSO has also completed training as a Catch-Up® Numeracy trainer. This has increased the capacity to deliver training across SLC. Schools are funding this intervention predominantly through Pupil Equity Funding or Scottish Attainment Challenge funding both in terms of training and staffing.

Initial evidence suggests that the intervention is having a significant impact for most pupils involved. Data is currently being collected from schools to allow us to measure the impact this intervention is having.