AGENDA ITEM No. 5

EAST RENFREWSHIRE COUNCIL

EDUCATION COMMITTEE

10 May 2018

Report by Director of Education

DRAFT NUMERACY AND MATHEMATICS STRATEGY

PURPOSE

1. To seek elected member approval for the draft Numeracy and Mathematics Strategy.

RECOMMENDATIONS

2. Education Committee is asked to :

- approve the draft Numeracy and Mathematics Strategy;
- instruct the Director of Education to report to Education Committee on the impact of its implementation.

BACKGROUND

3. Numeracy is well established within the priorities for Scottish Education. The National Improvement Framework (NIF) amongst other things outlined a commitment to:

- *ensuring that every child achieves the highest standards in literacy and numeracy, set out within Curriculum for Excellence levels and the right range of skills, qualifications and achievements to allow them to succeed*

4. This priority mirrors our own focus on the importance of numeracy and mathematics as set out in the Local Improvement Plan 2018-2021.

- *Improved reading, writing and mathematics attainment throughout the years of the broad general education*

5. Nationally the Pupil Equity Fund (PEF) is allocated to schools to improve the educational outcomes of children and young people affected by poverty; the interventions and activities require to be focused on improving outcomes in numeracy, literacy or health and wellbeing.

6. The Making Maths Count group was established to consider how to encourage greater enthusiasm for mathematics amongst children and young people, their parents and carers and the wider public. Their report, published in September 2016, set out ten recommendations under three key areas, specifically in relation to:

- Transforming public attitudes to maths;
- Improving confidence and fluency in maths for children, young people, parents and all those who deliver maths education to raise attainment and achievement across learning; and,
- Promoting the value of maths as an essential skill for every career.

7. Along with the Numeracy and Mathematics Strategy ERC Education Department is developing a Digital Learning and Teaching Strategy and a STEM Strategy. This suite of strategies have been developed to complement each other.

REPORT

8. The attached strategy (Appendix 1) has been written by officers from the Education Department including head teachers, led by the Head of Education Service (Quality Improvement and Performance).

9. The strategy links clearly to the Education Department's vision '*Everyone Attaining, Everyone Achieving through Excellent Experiences*' and sets out how we will ensure that all children and young people develop the numeracy and mathematics skills they need to be successful throughout life.

10. The strategy challenges all involved to make mathematics more inspiring, enjoyable and relevant to real life; and as a result, to increase enthusiasm, encourage greater participation and raise attainment. As such, the strategy addresses the relevant recommendations from the Making Maths Count Report.

11. The numeracy and mathematics strategy aims to improve:

- outcomes and reduce inequalities in numeracy & mathematics development;
- attainment in numeracy & mathematics throughout the years of the broad general education and senior phase;
- confidence and fluency in mathematics for children, young people and parents and all those who deliver mathematics education;
- the employability skills of pupils, school leavers and adults;
- the quality of learning, teaching and assessment; and,
- public attitudes to numeracy & mathematics.

12. The strategy will build on existing good practice in East Renfrewshire, use up-to-date research and evidence and ensure that numeracy and mathematics have a central and continuing focus in education.

13. It also recognises the need to work with parents and partners to improve attitudes towards mathematics and numeracy and promote the value of mathematics as an essential skill for learning, life and work. The strategy includes a commitment to working in partnership with employers alongside DYW (Developing the Young Workforce) West.

14. The strategy sets set out the actions that will be taken by the Education Department and schools to deliver the six key aims in numeracy and mathematics. The timeframe over which these actions will be taken forward is the three-year period 2018-2021.

15. The strategy will be monitored on an ongoing basis within the Education Department, with progress reported to the Education Committee on an annual basis through yearly presentations on attainment and through the department's and schools' Standards and Quality Reports.

CONSULTATION

16. In formulating this Numeracy and Mathematics Strategy, East Renfrewshire Council Education Department has demonstrated its commitment to taking into account the views of the workforce. Staff from early years, primary and secondary schools and Adult Learning Services contributed during this process.

FINANCIAL AND EFFICIENCY IMPLICATIONS

17. Any other financial matters relating to this paper will be met from the department's devolved budget.

CONCLUSION

18. The strategy invites schools, services, agencies and families to work in partnership to raise the bar in terms of what all our children, young people and adults can achieve if we are to:

- raise attainment and break the link between poor numeracy and mathematic levels and deprivation;
- improve the quality of learning, teaching and assessment in mathematics;
- increase practitioner confidence and enhance professional practice in teaching numeracy and mathematics; and,
- transform public attitudes to mathematics, resulting in increased enthusiasm for the subject and increased recognition of its value and importance.

RECOMMENDATIONS

19. Education Committee is asked to :

- approve the draft Numeracy and Mathematics Strategy;
- instruct the Director of Education to report to Education Committee on the impact of its implementation.

Mhairi Shaw
Director of Education
10 May 2018

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Local Government Access to Information Act 1985

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Background papers
1. 2018 National Improvement Framework and Improvement Plan
https://beta.gov.scot/publications/2018-national-improvement-framework-improvement-plan/

2. East Renfrewshire Education Department Local Improvement Plan 2018-2021
   http://www.eastrenfrewshire.gov.uk/CHttpHandler.ashx?id=21767&p=0
3. Making Maths Count Report
   http://www.gov.scot/Publications/2016/09/3014

Appendix

Appendix 1 Draft Numeracy and Mathematics Strategy

Appendix 1

East Renfrewshire Education Department

Numeracy and Mathematics Strategy

2018-2021

Contents

Foreword by Convener for Education and Equalities Councillor Paul O'Kane

As the convener for education and equalities, I am very pleased to introduce the Education Department's Numeracy and Mathematics Strategy for 2018 – 2021. It is structured around the department's vision statement '*Everyone Attaining, Everyone Achieving through Excellent Experiences'* as this captures our aspirations and expectations for all learners in our schools and early learning and childcare establishments.

The strategy outlines our ambition for all children and young people within the context of numeracy and mathematics and our commitment to supporting everyone, including staff, to realise their potential and develop their skills and capabilities to be successful in life.

It identifies the key aims we will be working to achieve in the next three years and the clear set of actions that will be taken by the Education Department and schools in order to deliver these aims. This outcome focused approach will help us ensure that the experiences we provide have a positive impact on the children and young people who attend our centres and schools.

I commend the Numeracy and Mathematics Strategy to you and invite parents, carers and all our other partners to work with the staff in our schools and services in delivering the key aims identified in the plan.

Councillor Paul O'Kane
Convener for Education and Equalities

Introduction

> '*To face the challenges of the 21st century, each young person needs to have confidence in using mathematical skills, and Scotland needs both specialist mathematicians and a highly numerate population'*
> **Building the Curriculum 1, page 18**

East Renfrewshire Council's Education Department is fully committed to securing positive outcomes for all children and young people. **The department's vision statement – '*Everyone Attaining, Everyone Achieving through Excellent Experiences*'** – clearly demonstrates an ambition for all children and young people and sets out the responsibility placed on everyone who works in education to meet the needs of all and develop their skills and capabilities.

In the context of numeracy and mathematics we need to ensure all children and young people develop the numeracy and mathematics skills they need to be successful throughout life. However the vision also challenges all involved to make mathematics more inspiring, enjoyable and relevant to real life work, and in doing so '*help to create greater enthusiasm, encourage greater participation and raise attainment*'[i].

This strategy outlines East Renfrewshire Education Department's commitment to delivering the vision in the context of numeracy and mathematics. The strategy also addresses the 3 key areas and relevant recommendations set out in the **Making Maths Count Final Report** and **One Year Overview Report**[ii], specifically in relation to:

- Transforming public attitudes to maths;
- Improving confidence and fluency in maths for children, young people, parents and all those who deliver maths education to raise attainment and achievement across learning; and,
- Promoting the value of maths as an essential skill for every career.

The strategy sets out six key aims.

To improve:

1. outcomes and reduce inequalities in numeracy & mathematics development;

2. attainment in numeracy & mathematics throughout the years of the broad general education and senior phase;

3. confidence and fluency in mathematics for children, young people and parents and all those who deliver mathematics education;

4. the employability skills of pupils, school leavers and adults;

5. the quality of learning, teaching and assessment; and,

6. public attitudes to numeracy & mathematics.

The following sections set out the actions that will be taken by the Education Department and schools to deliver the six key aims in numeracy and mathematics. The timeframe over which these actions will be taken forward is the three-year period 2018-2021.

As a result of the actions of this strategy, by 2021 we expect to see:

1. Increased attainment in numeracy and mathematics of children and young people, specifically in:
    i. numeracy baseline assessments;
    ii. mathematics in the broad general education;
    iii. national examinations in the senior phase.

2. A reduction in the attainment equity gap in relation to gender, ethnicity, lowest performing 20%, poverty and looked after children and young people.

3. Increased practitioner confidence and enhanced professional practices in teaching numeracy and maths across all sectors.

4. Greater involvement of parents, employers and partners in supporting children and young people to develop the numeracy and mathematics knowledge and skills required for learning, life and work.

5. Improvements in the curriculum and improved learning experiences for all children and young people.

6. Greater enthusiasm for mathematics and an increased recognition of its value and importance amongst children, young people, parents and the wider public.

This strategy uses the following **definitions of numeracy and mathematics**:

Mathematics is more than just becoming familiar and fluent with numbers, **mathematics capability** includes[iii] [iv]:

- The ability to model real-life situations and make connections and informed predictions;
- Being equipped with skills to interpret and analyse information, simplify and solve problems, assess risk and make informed decisions;
- Being open to new ideas and alternatives, and appreciative of the importance of evidence, and critical reasoning;
- Being curious, imaginative and diligent

'***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*.'[v]

Learners are numerate if they have developed:

'*the confidence and competence in using number which will allow them to solve problems, analyse information and make informed decisions based on calculations*.' [vi]

Mathematics and numeracy develops essential skills and capabilities for life, participation in society and in all jobs and careers. The discipline of mathematics also represents a fundamental element of the STEM agenda, which is a priority nationally and a key action locally in the East Renfrewshire's Developing the Young Workforce Implementation Plan 2017-2020.

The strategy will build on existing good practice in East Renfrewshire, use up-to-date research evidence and ensure that mathematics and numeracy continue to have a central focus across the authority. It recognises the need to work with parents and partners to improve attitudes towards mathematics and numeracy and promote the value of mathematics as an essential skill for learning, life and work.

Everyone Attaining

'Attainment is an individual's passport to personal, social, cultural and economic opportunities. Raising attainment means improving life chances.'
Raising Attainment, Scottish Government, page 3

Improving attainment, particularly in literacy and numeracy along with closing the attainment gap between the most and least disadvantaged children and young people are fundamental priorities for Scottish Education. The paper *Advancing Excellence and Equity in Education in East Renfrewshire* recognises the similarities between ERC and national priorities, and the ethos in the authority of continuous improvement. As a result, our emphasis must be to build on our current strengths, raising the bar for all learners, whilst at the same time, ensuring we improve the attainment of particular groups of children and young people, who experience disadvantage.[vii]

Attainment when measured by teacher professional judgements and performance in national examinations is at a very high level in numeracy and mathematics:

- In 2016-17, 90% of primary pupils achieved the expected levels in mathematics, an increase of nearly 2% in comparison with 2015-16.
- 95% of S3 pupils achieved third level or better in 2016-17; 76% achieved fourth level;
- Comparing all local authorities, East Renfrewshire had the highest proportion of children and young people achieving the minimum expected levels in numeracy and mathematics at P1, P4, P7, S3 (Fourth level)[viii].
- Over the last five years the performance at Higher (S5 and S6) has improved, with A-C awards increasing from 80% in 2013 to 86% in 2017; nationally the pass rate was 72% in 2017. During the same period there has also been an increase in the proportion of A awards at Higher from 35% to 50%; in 2017 the equivalent figure nationally was 29%.
- At Advanced Higher, the proportion of A-C awards has increased from 68% in 2013 to 78% in 2017; there has also been a significant increase in the A awards during the same period from 20% to 41%. The percentage of A and A-C awards in East Renfrewshire was well above the equivalent national averages of 33% and 71% respectively.
- From 2013 to 2016 the proportion of school leavers achieving numeracy at SCQF level 4 has remained around 95%; the proportion achieving level 5 has increased from 84% to 87%. At level 5 the performance is above the national average (67%) and our virtual comparator (81%).

Numeracy performance in the early years has improved. From 2005-06, when the P1 baseline assessment was introduced in its current format, to 2017-18, the average raw score in numeracy has increased from 48% to 59%, the highest result to date.

We have also seen an increase in the percentage of primary pupils in the lowest attaining group achieving the expected levels in mathematics from 44% in 2011-12 to 63% in 2016-17.

However, our data also identifies areas where we need to bring about further improvement. For example, we still need to do more to reduce the impact of poverty. The 2016-17 data shows that the attainment of our learners in all curricular areas and stages is generally higher than the national average for all SIMD (Scottish Index of Multiple Deprivation) quintiles, however, the gap between those in quintile 1 and 5 is larger than the national average.

Our numeracy baseline and recent research highlights the need to focus our interventions at an early stage. The 2017 baseline results in numeracy indicate that the average performance for pupils in SIMD deciles 1 and 2 was 13 standardised test points lower than pupils in SIMD deciles 9 and 10.

Along with literacy and health and wellbeing the additional money associated with the Pupil Equity Fund (PEF) should be focused on improving outcomes in numeracy. The guidance produced by the Education Department noted the importance of data and evidence:

'*Schools may know what is already working in their schools and may decide to extend such approaches, but any decision which schools make about the most appropriate interventions and approaches must be based on effective self-evaluation, including analysis of attainment data and robust measures of impact and progress*.'[ix]

In East Renfrewshire we have recognised the importance of professional inquiry and staff collaborating to tackle educational inequality. In closing the numeracy and mathematics attainment gap, we need to continue to invest in our school improvement partnerships; building staff capacity, encouraging schools to learn from each other, experiment with their practice and monitor and evaluate change.

Over the last five years, there has been a significant focus on moderation within and across early learning and childcare establishments and schools. This has included opportunities in numeracy and mathematics. However, analysis of mathematics teacher judgements for pupils during the broad general education when compared with the percentage of children moving on to, and successfully achieving, National Qualifications in S4 and beyond, highlights the need for ongoing moderation to support staff in developing a common understanding of standards. We need to continue to provide staff with the opportunity to engage in professional dialogue and the moderation process with colleagues in their school, cluster, across the authority and beyond, in order to share good practice and arrive at valid and reliable decisions on learners' progress towards, and achievement of, a level.

By 2021 in terms of attainment we expect to see:

1. Increased attainment in numeracy and mathematics of children and young people, specifically in:
    i. numeracy baseline assessments;
    ii. mathematics in the broad general education;
    iii. national examinations in the senior phase.

2. A reduction in the attainment equity gap in relation to gender, ethnicity, lowest performing 20%, poverty and looked after children and young people.

To achieve these outcomes **we shall take the steps set out below:**

- Support and challenge schools and ELC (Early Learning and Childcare) establishments to analyse attainment data and identify children requiring targeted support;
- Introduce and implement an early years tracking tool;
- Build capacity of senior staff and teachers in schools in using tracking and monitoring tools including Insight, SNSA (Scottish National Standardised Assessment) and the BGE (Broad General Education) Improvement Tool;
- Support numeracy and mathematics moderation within and across sectors to improve teacher understanding of standards;
- Support Principal Teachers of mathematics to develop evidence based approaches to raising attainment;
- Share successful interventions and learning from School Improvement Partnerships, Pupil Equity Funding and action research/professional enquiry; and,
- Review the allocation of resources to ensure additionality is deployed to support prevention and early intervention.

Everyone Achieving

> 'We have identified two main challenges. The first is to convince everyone, whatever their circumstances in life, that they have the ability to become proficient at maths. The second is to convince them of the benefits of doing so.'
> **Making Maths Count, page 3**

We know that in order for pupils to experience success in mathematics they need to be encouraged to ask questions, take risks, explore alternative approaches and explain their thinking. Children and young people need to have opportunities to develop higher-order thinking skills that enable them to apply and extend their mathematical techniques and problem solving skills. We need to provide an appropriate balance between repeated practice and consolidation along with activities which allow learners to apply skills in familiar and unfamiliar contexts.

As a result, central to the strategy is a commitment to providing enhanced Career Long Professional Learning (CLPL) opportunities for staff, supporting them to deliver excellent learning experiences for all our pupils. Research indicates that in relation to effective teaching the two factors with the greatest impact on pupil attainment are teachers' content knowledge and the quality of instruction, including strategies like effective questioning and the use of assessment[x].

'*Effective teachers of mathematics must be able to move back and forth between the mathematics and the pedagogy, drawing on both to meet the needs of the learner.'*[xi]

We know nationally that teacher confidence in delivering numeracy and mathematics experiences and outcomes is variable. Based on the 2015 SSLN (Scottish Survey of Literacy and Numeracy), teacher confidence was lowest in the organisers of chance and uncertainty and fractions, decimal fractions and percentages. The introduction of East Renfrewshire Maths Champions in all early learning and childcare establishments and primary schools has gone some way to build staff competence and confidence whilst improving practice in numeracy and mathematics. This strategy reinforces the importance of high quality professional learning opportunities and the leadership role of the Maths Champion in providing colleagues with support and practical advice relating to numeracy and mathematics. It will also continue to promote the national numeracy and mathematics hub across the authority and use its content as part of training offered for staff.

As noted earlier, the second key area within the Making Maths Count Report is also designed to improve the confidence of parents as well as staff to raise attainment and achievement in mathematics. Research evidence[xii] highlights a number of benefits in relation to Family Learning in mathematics:

- Parents are more positive and have greater understanding of the teaching and learning approaches used by the school;
- Parents becoming equal partners in their children's learning at home, school and in their communities resulting in raised attainment for all and a narrowing of the poverty-related attainment gap; and,
- Positive impact on parents' own educational attainment, future training and further learning and employability opportunities.

Over the next three years we will further develop our approaches to family learning and parental engagement ensuring that our parents feel well supported and have the necessary skills to help their children to learn and enjoy mathematics. Our Parental Engagement Strategy 2018-2021 and the work of our Adult Learning Service will be crucial in taking this aspect forward.

A key activity within East Renfrewshire's Developing the Young Workforce Implementation Plan 2017-2020 is a commitment for all schools and clusters to establish partnerships with employers. This is designed to meet the expectation as set out in *'Developing the Young Workforce - Scotland's Youth Employment Strategy'*. Given the importance placed on mathematics as an essential skill for every job,

further action is required to ensure our partnerships with employers have a positive impact on the development of children and young people's skills for life, learning and work. These partnerships should also lead to a greater awareness for pupils of the wide range of career options that their mathematical skills make available to them.

By 2021 in terms of achievement we expect to see:

3. Increased practitioner confidence and enhanced professional practices in teaching numeracy and mathematics across all sectors.

4. Greater involvement of parents, employers and partners in supporting children and young people to develop the numeracy and mathematics knowledge and skills required for learning, life and work.

To achieve these outcomes **we shall take the following actions:**

- Promote the national numeracy and mathematics hub across the authority and incorporate the resources into the CLPL training provided for staff;
- Provide professional learning for staff in key aspects of numeracy and mathematics;
- Provide CLPL to update and enhance the professional practice of staff in relation to National Qualifications;
- Provide professional learning for Maths Champions and support them to enhance practice in their own establishments;
- Support establishments to build capacity, improve learning and teaching and raise attainment through robust self-evaluation based around *How Good is our School?* and *How Good is our Early Learning and Childcare?;*
- Support the development of high quality learning, teaching and assessment materials for mathematics National Qualifications;
- Engage Maths Champions and secondary mathematics practitioners in joint CLPL activities to support depth and challenge in the teaching of mathematics;
- Strengthen connections with Health Visitors, promoting the importance of numeracy and mathematics to parents;
- Work with Adult Learning Service to ensure that parents/carers have the numeracy and mathematics skills to support their children;
- Support establishments to increase parental engagement in numeracy and mathematics;
- Share successful approaches across the authority and West Partnership to develop engagement with parents, employers and partners to support children's numeracy and mathematical development;
- Work in partnership with DYW (Developing the Young Workforce) West to support establishments to work with employers to promote greater understanding of numeracy and mathematics as an essential skill for learning, life and work; and,
- Develop partnership working to deliver numeracy and mathematics opportunities which equip children, young people and adults with the knowledge, confidence and skills required for learning, life and work.

Excellent Experiences

> '*Mathematics permeates all aspects of modern life. Mathematics continues to grow in importance in the world of work, but mathematical capability has also become essential for improving one's personal life. Fostering excellence in mathematics is therefore not just vital to every nation's economic prosperity. It is also essential to creating an equitable society.'*
> **Excellence in Mathematics, page 3**

We know that in order to raise attainment and achievement we need to provide our learners with the highest quality experiences. We need to ensure that we deliver a curriculum that meets the needs of all our learners and ultimately secures a positive and sustained post-school destination.

Nationally, there is often a negative public perception of mathematics. In many cases this is related to a negative experience of the subject whilst at school. In research carried out as part of the *Making Maths Count* report, young people and adults associated mathematics with words such as 'difficult' and challenging', with 'boring' and 'fun' used in equal measure by young people. The OECD report *Improving Schools in Scotland: An OECD Perspective*[xiii] noted that some 30% of Scottish learners reported that they feel very tense and nervous when doing maths work and more than 50% worry that maths will be difficult. These findings were mirrored by the 2015 Scottish Survey of Literacy and Numeracy[xiv]; pupil engagement with their learning, whilst high, decreased from P4 to S2. Disappointingly, 46% of S2 learners surveyed agreed a lot or agreed a little with the statement that '*working with numbers is boring'*.

There is evidence in East Renfrewshire of greater enthusiasm for mathematics and a recognition of its importance for life. The percentage of S5 and S6 pupils presented for Higher mathematics is around a third of the cohort, well above the national average of 22%. However, the proportion presented decreased from 35% in 2013. In contrast the proportion of S5 and S6 pupils presented for Higher English increased from 47% in 2013 to 52% in 2017. At Advanced Higher, the percentage of S6 pupils presented has increased from 10% in 2013 to 16% in 2017, again well above the national average of 9%. In 2017 it was the most popular Advanced Higher across the authority; chemistry, biology and physics were the next most popular at 14%, 11% and 9% presented respectively.

The Curriculum for Excellence Review 2015-16 highlighted that *'all schools were using East Renfrewshire's skills framework and national guidance to develop curriculum programmes and progression pathways that had a strong emphasis on the application of skills. Teachers planned carefully to ensure coherence and progression across stages.'* However the review also recommended that the Education Department should revisit and update the curricular guidance it provides to all establishments.

In the context of numeracy and mathematics, we must ensure that the curriculum in our early learning and childcare establishments and schools reflects the design principles, meets the entitlements of Curriculum for Excellence (CfE) and is relevant to their pupils and local context. It is particularly important that our learners understand why mathematics is useful in everyday life.

The final aim of this strategy addresses the need for greater enthusiasm for maths and an increased recognition of its value and importance. Nationally this has been taken forward in part through the introduction of '*Maths Week Scotland.'* All East Renfrewshire establishments embraced this opportunity to promote creativity and innovation and provide learners with a wide variety of rich and exciting experiences within numeracy and mathematics. We will continue to participate in future '*Maths Week Scotland*' events along with other promotions and competitions to ensure momentum is maintained and fostered wherever possible.

In order to promote numeracy and mathematics more widely, we will work closely with our Communications Team to generate greater enthusiasm and increased awareness of its value.

By 2021 in terms excellent experiences we expect to see:

5. Improvements in the curriculum and improved learning experiences for all children and young people resulting in increased learner confidence.

6. Greater enthusiasm for maths and an increased recognition of its value and importance amongst children, young people, parents and the wider public.

To achieve these outcomes **we shall take the steps that are set out below:**

- Review the East Renfrewshire Skills Framework to include the CfE Benchmarks;
- Develop associated guidance for implementation of the Skills Framework to ensure consistency of practice and awareness of the underpinning philosophy;
- Continue to make use of quality assurance procedures to ensure educators are effectively planning learning, teaching, assessment and moderation taking into account the design principles;
- Promote the use of digital technologies in numeracy and mathematics to enhance children's and young people's skills and learning experiences;
- Develop online resources to support the teaching of numeracy and mathematics;
- Support establishments to embed numeracy and mathematics in learners' experiences both indoors and outdoors;
- Promote involvement in National Numeracy and Maths Week and showcase innovative practice;
- Support National Initiatives such as Read, Write, Count and Making Maths Count'
- Continue to support numeracy and mathematics promotions, events and competition opportunities; and,
- Work with PR to develop a strategy to promote greater enthusiasm and increased awareness of the value and importance of numeracy and mathematics to everyday life.

Reporting on Progress and Measuring Success

The department and schools undertake annual self-evaluation activities which are summarised in Standards and Quality Reports. These reports, as they do currently, will include data that will measure performance and provide information on the progress made with the actions taken to secure the outcomes outlined above.

In addition, as part of our duty '*to secure improvement in the quality of school education*'[xv] we plan to carry out a review of numeracy and mathematics during 2019-20. This review will highlight progress and areas for further development mid-way through the strategy.

As is current practice, we shall continue to report annually to East Renfrewshire Council Education Committee on the attainment and achievements of our pupils in the broad general education and senior phase; this will continue to include a focus on numeracy and mathematics. We will also report on the quality of education provided by our establishments through (Education Scotland) school inspection reports and Care Inspectorate reports. These will provide further evidence of our progress in implementing the actions set out within this strategy.

Appendix 1 illustrates the performance indicators and targets set for 2018-2021.

Appendix 1

Key Performance Indicators and Targets

Indicator	2016-17 Value	2018-19 Target	2019-20 Target	2020-21 Target
1. % answers correct in P1 numeracy baseline assessment				
2. % of primary pupils (P1, P4 and P7 combined) achieving expected levels or better in mathematics				
3. % of S3 pupils achieving fourth level in mathematics				
4. % of relevant roll attaining Numeracy at SCQF Level 5 or better by the end of S6				
5. % of primary pupils (P1, P4 and P7 combined) from SIMD deciles 1 and 2 achieving expected levels or better in mathematics				
6. % of S3 pupils from deciles 1 and 2 achieving fourth level in mathematics				
7. Increase the number of staff reporting that numeracy and mathematics CLPL has impacted positively on classroom practice				
8. Increase the % of adult learners working towards a numeracy and mathematics goal				
9. Increase the % of adult learners achieving numeracy and mathematics goals				
10. Increase the number of parents reporting that attending workshops improved their confidence and ability to support their children's numeracy and mathematics				
11. An increase in the % of young people presented for a mathematics qualification at Level 5 or better in S5 and S6				

References

[i] Making Maths Count, Scottish Government, page 3
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[iii] Curriculum for Excellence: Mathematics - Principles and Practice, Page 1
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[v] Curriculum for Excellence: Numeracy across learning - Principles and Practice, Page 1
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[viii] http://www.gov.scot/Publications/2017/12/5300
[ix] Using the Pupil Equity Fund Successfully to Maximise Improved Outcomes – ERC Guidance for Schools
[x] What makes great teaching? – Review of the underpinning research, 2014, https://www.suttontrust.com/wp-content/uploads/2014/10/What-makes-great-teaching-FINAL-4.11.14-1.pdf
[xi] Why the journey to mathematical excellence may be long in Scotland's primary schools – Sheila Henderson, Scottish Educational Review, 44 (1), pages 46-56
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https://education.gov.scot/improvement/documents/family-learning-report-full-document.pdf
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