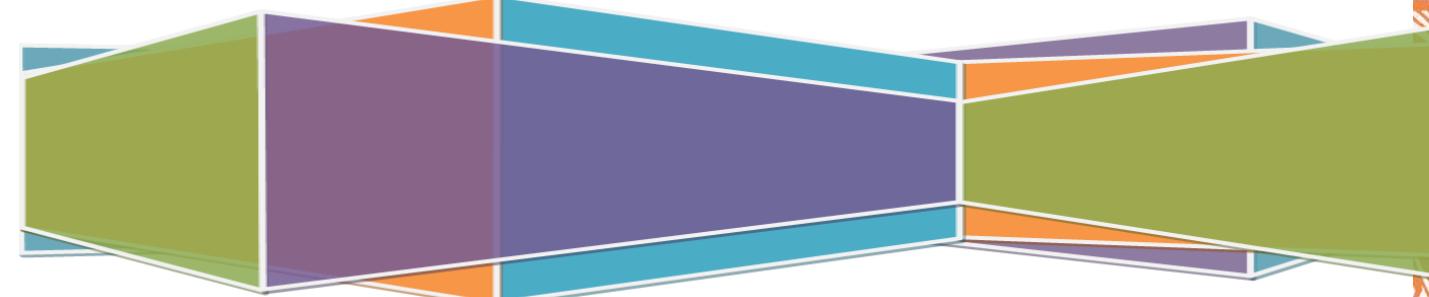




Government of Samoa  
Ministry of Education and Culture

# National Numeracy Policy (NNP) 2024 - 2029



# **National Numeracy Policy**

## **(NNP)**

### **2024 – 2029**

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**MINISTRY OF EDUCATION AND CULTURE**

## **ACKNOWLEDGEMENT**

The Ministry acknowledges the support and invaluable contribution of the people who worked very hard in developing this policy document.

We also extend our gratitude to Numeracy Working Group, stakeholders, school support advisors, staff and various organizations in the development of this National Numeracy Policy.

Through these collaborations, the development of this policy has been an extensive and valuable exercise.

## **LIST OF ACRONYMS (simple definition)**

|         |  |
|---------|--|
| ECE     | Early Childhood Education  |
| ESD     | Education for Sustainable Development  |
| ESNRG   | Education Sector Numeracy Reference Group  |
| PDD     | Performance and Development Division   |
| MNWG    | MEC Numeracy Working Group   |
| NCF     | National Curriculum Framework  |
| NPDP    | National Professional Development Programs   |
| PacREF  | Pacific Regional Education Framework is a regional policy guide endorsed at the Forum Education Minister Meeting in 2018 |
| PaBER   | Pacific Benchmark Education Research   |
| PILNA   | Pacific Islands Literacy and Numeracy Assessment   |
| SDGs    | Sustainable Development Goals.   |
| SDS     | Strategy of Development of Samoa –SEGRA –Samoa Early Grade Reading Assessment  |
| SNAPE   | Samoa National Assessment for Primary Education  |
| SPECA   | Samoa Primary Education Curriculum Assessment  |
| SPELL   | Samoa Primary Education Literacy Level   |
| SSC     | Samoa School Certificate   |
| SSILNaS | Samoa Schools Innovation in Literacy, Numeracy and Science   |
| SSLC    | Samoa School Leaving Certificate   |
| UNESCO  | United Nations Educational, Scientific and Cultural Organization   |

## DEFINITION OF TERMS

|                                    |   |
|------------------------------------|---|
| <b>Additive Strategies</b>         | Additive strategies are techniques used to solve addition problems from known facts. For example, we can change $9+6$ into $10+5$ , so $9+6=15$ . Similarly, since most children learn the 'doubles' early on, $8+7$ can be thought of as one more than $7+7$ . More advanced additive strategies would be such as the following: To find $47+38$ ; shift 2 from the 47 to the 38 (i.e. partition 47 as $45+2$ ). The problem then becomes $45+40$ , which can more easily be solved. |
| <b>Algorithms</b>                  | Algorithms are a well-defined set of instructions designed to perform a particular task or solve a type of problem.   |
| <b>Bilingual</b>                   | Bilingual is being fluent in two languages. English and Gagana Samoa are the two official languages of Samoa, and are taught as subjects or as languages to be learned by the students as well as for teaching of another subject.  |
| <b>Classroom Based Assessment</b>  | Classroom-based assessment (CBA), also known as "formative", "ongoing" or "authentic" assessment, consists of informal practices conducted by teachers and learners themselves to both monitor and improve the quality of learning processes. <b>Bernard, J. 2009.</b>  |
| <b>Cognitive skills</b>            | are the core skills your brain uses to think, read, learn, remember, reason and pay attention. Working together, they take incoming information and move it into the bank of knowledge you use every at school, at work and in life.  |
| <b>Competency</b>                  | the ability to perform particular tasks and duties to the standard of performance expected in the classroom   |
| <b>Composite Classes</b>           | a classroom with students from more than one grade level sometimes also referred to as a multi-grade classroom  |
| <b>Collaborative Learning</b>      | Collaborative learning occurs when students work together in small groups with everyone participating in and contributing to the learning task.   |
| <b>Cross-curricular</b>            | is an approach to teaching is characterized by sensitivity towards, and a synthesis of, knowledge, skills and understandings from various subject areas. These inform an enriched pedagogy that promotes an approach to learning which embraces and explores this wider sensitivity through various methods.  |
| <b>Diagnostic Assessment Tools</b> | Are tools used to assess to expose, identify and/or highlight specific weaknesses and strengths in numeracy skills and give an accurate snapshot of individual students current learning and understandings in specific areas related to numeracy e.g. fractions.   |
| <b>Educational sectors</b>         | a group of institutions (ministries of education, local educational authorities, teachers training institutions, schools, universities, etc..) whose primary purpose is to provide education to children and young people in educational settings.  |
| <b>Functional Numeracy</b>         | Refers to the capacity of a person to engage in all those activities in which numeracy is required for effective function of his or her group and community. Pending agreement the level 2 is PIAAC is used as interim solution.  |
| <b>Manipulatives</b>               | Manipulative materials are any concrete objects that allow students to explore an idea in an active, hands-on approach. Manipulatives can be almost anything – blocks, shapes, spinners or even paper that is cut or folded. Manipulatives help students learn by allowing them to move from concrete experiences to abstract reasoning (Heddens, 1986; Reisman, 1982; Ross and Kurtz, 1993).   |
| <b>Mathematics</b>                 | Mathematics is the study of function and pattern in number, logic, space and structure, and of randomness, chance, variability and uncertainty in data and events.  |
| <b>Mathematical</b>                | Mathematical modelling involves using various approaches to represent real-world  |

|                                  |  |
|----------------------------------|--|
| <b>Modelling</b>                 | situations in such a way that reduces a problem to its essential characteristics.  |
| <b>Metacognitive strategies</b>  | Metacognitive strategies are methods, processes and routines used to assist students understand the way they learn.  |
| <b>Minimum proficiency level</b> | A minimum proficiency level (MPL) is the benchmark of basic knowledge in a domain (mathematics, reading, etc.) measured through learning assessments.  |
| <b>Multiplicative thinking</b>   | Multiplicative thinking is an ability to recognise and work flexibly with the concepts, strategies and representations of multiplication (and division) as they occur in a wide range of contexts.   |
| <b>Numeracy</b>                  | Usually, the ability to add, subtract, multiply and divide. More broadly, it means the knowledge and skills required to effectively manage and respond to mathematical demands posed by diverse situations, involving objects, pictures, numbers, symbols, formulas, diagrams, maps, graphs, tables and text. Encompassing the ability to order and sort, count, estimate, compute, measure, and follow a model, it involves responding to information about mathematical ideas that may be represented in a range of ways. ( <i>IIEP, UNESCO definition</i> ) |
|                                  | Numeracy encompasses the knowledge, skills, behaviours and dispositions that students need to use mathematics in a wide range of situations. It involves students recognizing the role of mathematics in the world and having dispositions and capacities to use mathematical knowledge and skills purposefully and solve problems in real life ( <i>ACARA 2017</i> ). It means having the confidence and skills to use numbers and mathematical approaches in all aspects of life.  |
| <b>Numeracy Capabilities</b>     | There are six interrelated elements and general capabilities in relation to numeracy: <ul style="list-style-type: none"> <li>- Estimating and calculating with whole numbers</li> <li>- Recognising and using patterns and relationships</li> <li>- Using fractions, decimals, percentages, ratios and rates</li> <li>- Using spatial reasoning</li> <li>- Interpreting statistical information</li> <li>- Using measurement</li> </ul>  |
| <b>Professional Development</b>  | the process of improving staff skills and competencies needed to produce outstanding educational results for students (“Hassel, 1999”).  |

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## FOREWORD



Over the years, there has been an inferior result of students' achievements in all levels of education in Samoa in Mathematics. This was believed to be derived from the way teachers teaching methods are applied in classrooms whereas there is less or even no opportunity provided for students to think deeply of the concepts themselves. Rote learning was mainly observed. Promote numeracy as an important life skill and recognize its development as a basic entitlement for every student. The

Numeracy Policy seeks to outline principles and define standards for the teaching and learning of numeracy in order to improve the quality of teaching mathematics from early childhood to post-secondary education. It is designed to empower teachers and educators of mathematics with the skills of numeracy and mathematics in order to raise the standards of numeracy. Most importantly, develop the learners' skills such as the ability to add, subtract, multiply and divide. Hence, the knowledge and skills required to effectively respond to all mathematical demands posed by diverse situations involving, objects, pictures, symbols, formulas, diagrams, maps, graphs, tables and text.

The focus is on transformational learning and putting in place innovative teaching practices to improve numeracy skills and enabling students to cope confidently with the demands of further education, employment and everyday life.

This policy will address the following:

- Early child care and development
- Pre-service and in-service support
- Learning environment
- Programs at all levels
- Partnerships & community support
- Assessment data analysis and reporting
- Professional development and capacity building

This policy promotes best numeracy practice and experiences across government schools. It aims to ensure that all children are provided with high quality learning experiences to develop, maintain and improve standards in numeracy from early learning to secondary school.

Soifua

A handwritten signature in blue ink. The signature is fluid and cursive, appearing to read "Seu'ula Ioane Tuā'au". It is written on a single line with a slight flourish at the beginning.

Hon. Seu'ula Ioane Tuā'au  
**Minister of Education and Culture**

## 1. INTRODUCTION

The National Numeracy Policy (NNP) addresses Samoa's commitment to UNESCO's Sustainable Development Goal (SDG) 4 aiming to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." A key target of this goal is that by 2030, all youth and a substantial proportion of adults, both men and women, will achieve accepted levels of literacy and numeracy.

The NNP has been developed within the agreed national policy framework established to inform school improvement strategies. This policy will be supported and strengthened by the National Teaching and Learning Policy (NTLP), as well as the Inclusive Education, Bilingual Education, Early Childhood Education, and ICT policies. Numeracy is the knowledge, skills, behaviours and dispositions that students need in order to use mathematics in a wide range of situations. The policy aims to raise numeracy standards throughout the country, so all learners develop the ability to use numeracy skills effectively across the curriculum and acquire the skills necessary to cope confidently with the demands of further education, employment, and adult life.

In Samoa, existing studies point to poor performances in mathematics across primary and high school and at pre-degree levels at the NUS (Afamasaga-Fuata'i, 2002; Government of Samoa, 2020). Samoa's Second Voluntary National Review (V.N.R.) (2020) on the implementation of the Sustainable Development Goals indicated that Samoa was facing declines in numeracy across all levels. Numeracy has been identified as a critical area for improvement at secondary level, with a very low proportion of secondary students meeting expected mathematics competency levels. In 2019, 2020, and 2021 respectively, 90%, 87%, and 79% of all SSC students only achieved at a Beginner (failing) Level in the National SSC Mathematics examination. The achievement rate in SSLC is only marginally better, albeit with the trend showing some incremental improvement. Pass rates of 22%, 23%, and 27% were reported in 2019, 2020, and 2021.

Whilst Primary school SPELL and SPECA results in 2021 indicated a somewhat better trend, with 99.4% of Year 6 and 88.5% of Year 8 students achieving at a passing standard, again very few students attained the higher levels of achievement. However, targeted interventions can result in significant improvements, e.g., the 2020 Year 8 SPECA cohort demonstrated significant growth (more than 1 standard deviation) above that of the region in 2018 PILNA Year 6 Numeracy. The 2020 SPECA cohort was part of the first group of recipients (in 2018) for targeted interventions based on robust tool development and reliable analyses from the 2017 national primary diagnostic assessments. National assessments for SPELL Years 4 and 6, and SPECA are now aligned to the skills levels of the Regional PILNA assessments sat by our Year 4 and Year 6 every three years (2018, 2021).

The NNP aims to address these trends by promoting best numeracy practice and approaches across government schools. It aims to ensure that all children are provided with high quality learning experiences to develop, maintain, and improve standards in numeracy from early learning to secondary school. It promotes numeracy as an important life skill and a basic entitlement for every student.

## **2. PURPOSE**

The Numeracy Policy aims to assist teachers in understanding the expectations of the Ministry to:

1. Provide a solid foundation in the early years as a basis for future learning and mathematics achievement
2. Promote numeracy as an important life skill and recognize its development as a basic entitlement for every student.
3. Ensure consistency of practice across educational establishments including planning, methods, delivery, vocabulary, notation, etc.
4. Develop, maintain and improve standards in numeracy across all subject areas
5. Encourage and promote the use of numeracy in TVET subject areas.

## **3. GUIDING PRINCIPLES**

The policy is guided by the following vision:

*“All children in Samoa will have equal opportunities to quality education for their future”*

This vision is substantiated by the key principles of:

### **3.1 Participation**

When all students participate fully in all aspect of school life they will be successful learners. The Numeracy Policy recognizes that all students can be successful learners when they are provided with sufficient time and support.

### **3.2 Rule of Law**

This policy is premised on the Education Act, 2009 and other related legislation as well as the policies and regulations of MEC. These must be enforced impartially and ensure that protection of human rights of all stakeholders

### **3.3 Quality**

The Teaching and Learning policy identifies that quality in teaching and learning can be seen in the way the knowledge, skills and ability of the teacher are employed to develop meaningful pedagogic experiences for students. Such experiences are evident when teaching impacts learning and learning influences teaching

### **3.4 Relevance**

The Numeracy Policy recognizes that for students to be successful, programs must be carefully planned and use a range of teaching approaches in order to cater for the various learning styles of students. Learning experiences should be directly applicable to the personal aspirations, interests or cultural experiences of students (personal relevance) and/or connected in some way to real world issues, problems and contexts (life relevance).

**3.5 Confidentiality**

Information regarding student's achievement or health issues may not be used in any other way except by request to the Ministry or any other governing body of the Ministry for monitoring and reporting purposes.

**3.6 Responsiveness**

The Numeracy Policy recognizes that programs must be broad and balanced and provide opportunities for the intellectual, social, spiritual and cultural dispositions of each student to be developed. The policy aims to ensure that when students complete their schooling they are well prepared for work and/or further study.

**3.7 Equity and Inclusiveness**

The system will treat all students equitably and provide educational opportunities that ensure all students have access to all aspects of learning.

**3.8 Effectiveness and efficiency**

Assessment must inform practice. The Numeracy Policy recognizes the need for teachers to use monitoring, assessment and reporting practices that help them evaluate the effectiveness of their teaching practices as well as provide an indication of student achievement against established curriculum standards.

**3.9 Accountability**

Accountability must be practiced in all decisions taken. The planning, making, purchasing and distribution of resources, the assessing of student learning, reporting of progress or lack of progress in every student's achievement that all schools (Principals, teachers) are held accountable

**3.10 Gender sensitivity**

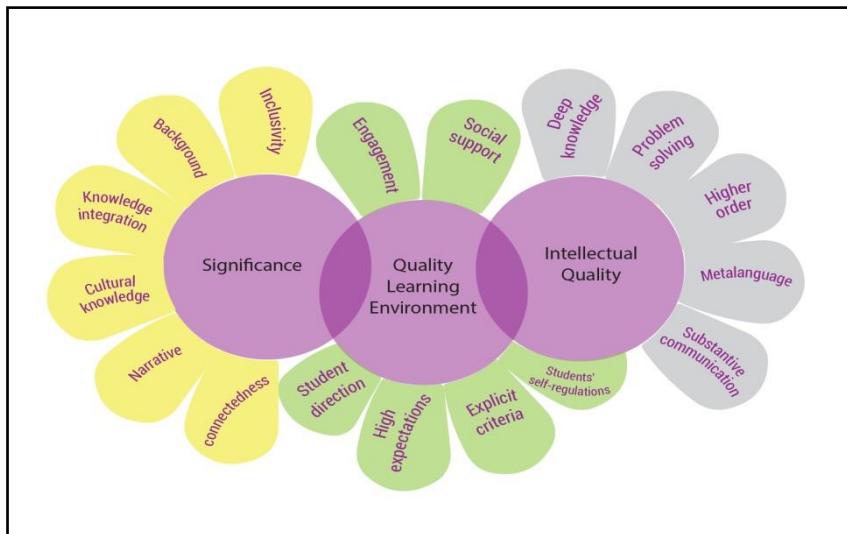
Teachers inspire and empower – they can also discourage and impose limitations, regardless of whether they are making a conscious effort to do so. To raise boys' achievement, resources that promote their interest in and understanding of the application of mathematics in everyday life and occupations are needed.

**3.11 Sustainability**

Educating for **sustainability** involves **teaching and learning** collective problem solving skills to address critical environmental, economic, and social issues.

## 4. POLICY STATEMENTS

The National Numeracy Policy, NNP, is connected to Goal 1: Policy Area 1 of The National Curriculum Framework 2024-2034 and is linked to the implementation to the TeLe Model (Appendix 5) using the three core components which are Intellectual Quality, a Quality Learning and Environment and Significance with its respective elements as shown below.



The NNP presents a set of policy statements that are essential to its successful **implementation**.

**4.1 EARLY CHILD DEVELOPMENT:** Foster the confidence, capacity and readiness of pre-school children to use mathematics in daily life.

**Strategy 1:** Build early numeracy skills to ensure that children's 'number sense' and understanding of measurement is developed in early childhood

**Strategy 2:** Build early numeracy skills to ensure that an understanding of patterning and space concepts is developed in early childhood. Mathematics is about searching for, describing, generalizing and justifying patterns. Research has shown that young children's spatial, rather than numerical, abilities predict their overall mathematics achievement.

**Strategy 3:** Build early numeracy skills by encouraging the use of available environmental resources and manipulatives in lesson delivery.

**4.2 TEACHING APPROACHES and PRACTICES (Pedagogies):** Promote cultural and student-centered pedagogies to improve numeracy outcomes and student achievement generally.

**Strategy 1:** Utilise a student centred approach to teaching and learning that shifts the focus of instruction from the teacher to the student. Balance individual, small group and guided instruction whilst ensuring appropriate individual interaction is included.

**Strategy 2:** Work on a mastery approach to teaching numeracy in the primary classroom by focusing on the concrete, then the pictorial before moving on to the abstract. Use objects, then pictures and finally add in the digits and symbols.

**Strategy 3:** Connect activities to real life whenever possible. Use concrete materials and hands-on activities. Maximise the use of visuals and support learning with visual materials, cues and supports. Play math games.

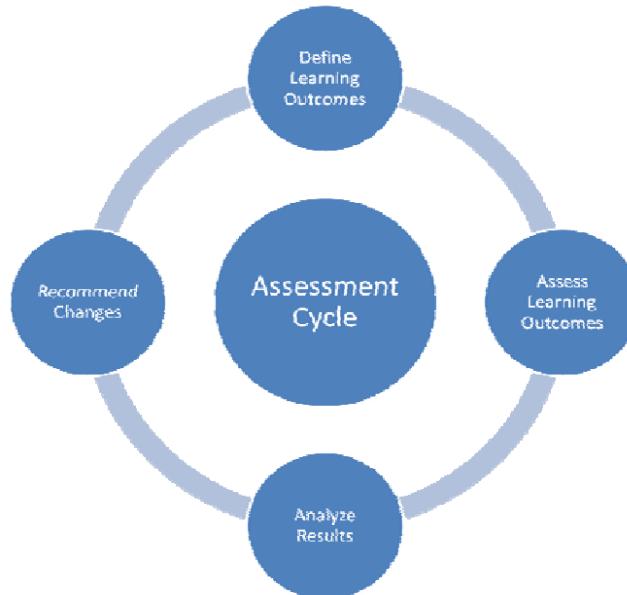
**Strategy 4:** Utilise a holistic approach to promote critical thinking and problem solving skills to improve students' ability to respond to questions that require interpretation and reasoning.

**Strategy 5:** Provide a range of numeracy interventions that differentiate and cater to the learning styles and abilities of individual students in the school.

- Encourage participation of schools in both clusters and national numeracy interventions to promote understanding of mathematical content.
- Encourage school based numeracy activities such as Numeracy Day Program to promote both teachers passion in mathematics and students interest to study.

**4.3 CLASSROOM BASED ASSESSMENT (CBA):** Utilise a wide range of assessment strategies and tasks to assess individual student progress and to inform targeted interventions to ensure the achievement of the learning outcomes.

Assessment in mathematics and numeracy is more than forming judgements about a learner's ability. It monitors the learner's understanding of the mathematical language, concepts and skills and what they need to do to succeed.



**Strategy 1:** Conduct teacher capacity building initiatives in the use of CBA methods (peer feedback, projects, vee-diagrams, concept maps, mind maps) and in the use of *Assessment for learning* and *Assessment as Learning*.

**Strategy 2:** Conduct teacher capacity building initiatives in the use of analysis of student data to identify developmental trends and inform the next step of planning and teaching.

**Strategy 3:** Implement a whole school approach to the implementation, application and practice of the use of CBA methods and ensure teachers use Classroom Based Assessment to plan activity based lessons to accommodate the needs of all their students.

#### **4.4 CURRICULUM PLANNING AND DEVELOPMENT:** Ensure the provision of a well-planned quality curriculum and supplementary resources to promote improvements in numeracy achievement.

**Strategy 1:** Reinforce the use of the ministry mathematics curriculum. Contextualize curriculum development which integrates and applies exploration, interpretation, analysis, deep knowledge and higher order thinking.

**Strategy 2:** Plan for Numeracy learning across all curriculum areas by identifying opportunities to strengthen or reinforce numeracy skills where they naturally appear in other classes. Look at ways to actively integrate maths skills into different subjects across the curriculum so that learners can formulate mathematical and/or statistical approaches to solving problems in a range of meaningful situations.

**Strategy 3:** Establish Benchmarks for numeracy and utilise diagnostic tests to support teachers' professional judgement of overall achievement levels and to identify students who are struggling:

- Utilise diagnostic tests to identify which areas of mathematics (number, measurement, space or statistics that students collectively and individually find the most challenging
- Develop specific curriculum support materials focusing on the key areas where students are underachieving e.g. the numeration system or spatial concepts
- Adopt structured one to one numeracy interventions for use with primary learners whose numeracy level is significantly below their chronological age
- Develop and implement a Middle Years Numeracy Support Initiative to address the needs of lower performing students

**Strategy 4:** Strengthen support visits and interventions to assist teachers with the utilization of curriculum resources, supplementary materials and CBA methods in their planning and reporting to ensure the essential components of lesson plans are reflected.

#### **4.5 TEACHER PROFESSIONAL TRAINING and CAPACITY BUILDING:**

Encourage engagement in effective professional development to improve and upgrade teaching skills to apply in **quality learning environment**.

**Strategy 1:** Conduct a Training Needs Analysis

**Strategy 2:** Strengthen ongoing national, cluster and school PD programs as per the National Professional Development Policy (NPDP) ensuring precise connection to curriculum resources and supplementary materials.

- Strengthen numeracy training and workshops for teachers in both cluster and national forms. In this way will provide teachers opportunities to share knowledge, skills and methodologies in mathematics.
- Promote teachers' sharing of pedagogical and content knowledge in the area of mathematics.

**Strategy 3:** Encourage the use of new technology and subject panel meetings to evaluate and share best teaching practices to improve students' achievements

#### **4.6 PARTNERSHIP AND COMMUNITY SUPPORT:** Strengthen collaborative positive working partnerships within local communities and with international bodies.

**Strategy 1:** Strengthen Home School Partnerships. Home-school partnerships play a key role in helping schools and communities as they work together to support children's achievement in numeracy.

- Conduct regular parent workshops and events to inform parents how they can contribute to children's learning.
- Identify and utilise key community members to support this work

**Strategy 2:** Continue to promote school and cluster based school partnerships where groups of teachers work together to improve their practice within a single school, across clusters of several schools, or in combinations of the two.

**Strategy 3:** Strengthen the participation of SQA and NUS to the Education Sector Numeracy Reference Group (ESNRG) and also encourage the implementation of the activities by the MEC Numeracy Working Group (MNWG)

**Strategy 4:** Establish working partnerships with Internal and External Stakeholders and local industries.

**Strategy 5:** Strengthen regional and global partnerships by engaging in national and international initiatives (e.g. PacREF, PILNA) with partners whose organizational visions are aligned and which share a clear focus on the collective goal of raising student achievement.

## 5. RELATED DOCUMENTS

| RELATED DOCUMENTS   | LEGISLATIVE & AUTHORITY                             | YEAR |
|---|---|------|
| Asset Management Policy 2018  | Ministry of Education and Culture                   | 2018 |
| Behaviour Management Guidelines 2010  | Ministry of Education and Culture                   | 2010 |
| Bilingual Education Policy 2011   | Ministry of Education and Culture                   | 2011 |
| Corporate Plan July 2015 - June 2018  | Ministry of Education and Culture                   | 2018 |
| Early Childhood Education Minimum Service Standards 2015                      | Ministry of Education and Culture                   | 2015 |
| Early Childhood Education Policy in Samoa 2017                                | Ministry of Education and Culture                   | 2017 |
| ECE National Curriculum Guidelines 2016                                       | Ministry of Education and Culture                   | 2016 |
| Education Act 2009  | Ministry of Education and Culture                   | 2009 |
| Government Teachers Appraisal Policy 2018-2023                                | Ministry of Education and Culture                   | 2018 |
| Inclusive Education Policy for Students with Disability 2015                  | Ministry of Education and Culture                   | 2015 |
| Samoa National Curriculum Policy Framework 2006                               | Ministry of Education and Culture                   | 2006 |
| National Professional Development Policy 2018-2023                            | Ministry of Education and Culture                   | 2018 |
| National Safe Schools Policy 2017   | Ministry of Education and Culture                   | 2017 |
| National Sports Framework 2018-2028   | Ministry of Education and Culture                   | 2018 |
| National Teacher Development Framework 2018-2028                              | Ministry of Education and Culture                   | 2018 |
| Public Service Commission Act 2004  | Public Service Commission                           | 2004 |
| Samoa National Sports Policy Review Report 2017                               | Ministry of Education and Culture                   | 2017 |
| Samoa National Assessment Policy Framework 2010                               | Ministry of Education and Culture                   | 2010 |
| Samoa Professional Standards for Principals 2014                              | Ministry of Education and Culture                   | 2014 |
| One Government Grant Manual of Operations                                     | Ministry of Education and Culture                   | 2018 |
| Samoa School Nutrition Standards 2011   | Ministry of Education and Culture                   | 2011 |
| School Governance Framework 2018-2028   | Ministry of Education and Culture                   | 2018 |
| School Governance Policy 2018-2023  | Ministry of Education and Culture                   | 2018 |
| School Management and Organization Manual 2017                                | Ministry of Education and Culture                   | 2017 |
| School Management Policy 2018-2023  | Ministry of Education and Culture                   | 2018 |
| School Staffing Manual 2017   | Ministry of Education and Culture                   | 2017 |
| Teachers Act 2016   | Ministry of Education and Culture                   | 2016 |
| The Minimum Service Standards for Primary and Secondary Schools in Samoa 2016 | Ministry of Education and Culture                   | 2016 |
| TVET Consumables for Secondary Schools Policy 2017                            | Ministry of Education and Culture                   | 2017 |
| Youth, Sports and Cultural Affairs Act 1993                                   | Ministry of Women, Community and Social Development | 1993 |

## 6. APPLICATION AND SCOPE

The policy addresses the teaching and learning of numeracy skills, knowledge and is applicable for all schools from Early Childhood Education to College level. It sets out to give direction

- a. in the planning and delivery of Mathematics in the classroom and the teaching of numeracy across the curriculum.
- b. to provide support for ALL students in the classroom and set out intervention programmes for students at risk in numeracy
- c. for capacity building and professional development for all teachers within schools and in the national level
- d. for parents/ guardians to support the learning of their sons/daughters at home
- e. in the monitoring of teaching and learning of numeracy in the classroom

## 7. ROLES AND RESPONSIBILITIES

Every level in the education system has a degree of responsibility in improving educational outcomes in Samoa. The whole school community should be empowered to improve numeracy outcomes.

### 7.1 THE ROLE OF MEC

The Ministry's role is to translate strategies into an action and implementation plan to enable the delivery of the Key Performance Indicators identified in the policy. As per the following but not limited to, MEC will:

- Develop resources in partnership with teachers and relevant partners to address numeracy issues in Samoan schools and cultivate the learning of all students in all levels
- Continue to promote the annual Samoa Schools for Innovation in Literacy, Numeracy and Science (SSILNaS) Program that the Ministry has administered since 2014. This initiative aims to encourage students in both primary and secondary schools to be innovative in their approach to learning. ([Appendix 2](#))
- Effectively integrate ICT into the curriculum to improve numeracy across the curriculum

### 7.2 THE ROLE OF SCHOOL SUPPORT ADVISORS

The SSA roles include the following but are not limited to:

- To improve student achievement in numeracy, School Inspectors work in collaboration with school principals to identify numeracy support required by teachers and consult with PDD, CDMD to assist in teacher training.
- Facilitate professional development and identify champion numeracy teachers to take a lead in the capacity building of teachers within the district.

### 7.3 THE ROLE OF PRINCIPALS AND TEACHERS

The roles of principal and teachers are important and are not limited to;

- Responsibility for the numeracy achievement of each student in their care by working in collaboration with classroom teachers to identify students at risk and design intervention programmes for them.
- Ensuring inclusion of components of numeracy and activities aimed at improving numeracy in all school professional development programs e.g.
  - specialized Literacy and Numeracy intervention programs (SLANIP) as indicated in MSS 2016:26, 28.
  - targeting of talented and gifted students to challenging and high-level thinking or cognitive programs. ([Appendix 3](#))

## *7.4 Home School Partnership Programme*

The Home School Partnership Programme is important where it:

- Provides the opportunity for parents to develop insight and strategies to support their children at home with their learning. This programme is facilitated by the principal and supported by staff. Selected parent representatives are included as trainers for this programme.

## *7.5 THE ROLE OF SCHOOL COMMITTEE*

The School Committed has an essential and unique role to play in supporting pupils' learning and their development into effective, independent learners and readers. The School Committee should be:

- a partner with teaching staff in the education process
- a partner in supporting individual learning styles
- an acknowledged expert in resource and information provision and management
- a leader and partner with teaching staff in the collaborative design and implementation of information literacy programmes throughout the school
- a leader in creating and developing a climate to promote and support reading for pleasure across the school
- an acknowledged partner with all staff to effectively support and resource each key stage
- a partner in out of hours learning

## *7.6 THE ROLE OF THE COMMUNITY AND THE FAMILY*

Through the Home School Partnership Program, parents and other caregivers have a role in supporting the development of children's numeracy skills.

- parents are empowered with numeracy skills to support the learning of their children within the home.
- Greater attention needs to be given to the cultural validity of such initiatives, in order to ensure that the needs of all groups, including low-income families, are met successfully.

## *7.7 THE ROLE OF VOLUNTEERS –*

All volunteers from abroad are providing support for primary classroom teachers in teaching numeracy across the curriculum in the primary and colleges

## *7.8 THE ROLE OF THE EDUCATION SECTOR NUMERACY TASKFORCE (ESTN)*

The ESTN will provide strategic direction and leadership to ensure the improvement of numeracy performance in all levels of learning. The Education Sector Plan will be used as the document to guide the work of the ESTN. The ESTN is responsible for the development of innovative practices and interventions to drive the improvement of numeracy, by working closely with relevant divisions within MEC and the wider sector.

## **8. MONITORING, EVALUATION AND REPORTING**

### *8.1 National Monitoring*

Effective monitoring of Numeracy at all levels is vital to ensure that:

- Numeracy programs are in place to cater for the needs of the learners.
- Resources provided for Numeracy are directed to schools and utilized in the classroom. Schools should closely monitor them.

### *8.2 School Level*

School Principals will include monitoring of Numeracy across the curriculum as part of their regular monitoring. Their focus should be on effective incorporation of numeracy into planning, monitoring of assessment opportunities.

### *8.3 Reporting*

Reporting of students' achievement is vital. It is the responsibility of teachers and principals to ensure that all student progress is reported to the students during group or student conferencing OR during parent/teacher day or evening to the parents.

Student portfolio reflects a compilation of academic work and other forms of educational evidence assembled for the purpose of:

- evaluating coursework quality, learning progress, and academic achievement;
- determining whether students have met learning standards or other academic requirements
- helping students reflect on their academic numeracy goals and progress as learners;
- and creating a lasting archive of academic work products, accomplishments, and other documentation.

### *8.4 Review of Policy*

This policy will be reviewed in 2029.

## 9. REFERENCES

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## 10. ENDORSEMENT



### Certificate of Endorsement

**Effective Date:** 01 May 2024

**Review Date:** 2029

**SIGNED AND APPROVED BY THE HON. MINISTER**

A handwritten signature in blue ink, appearing to read "Seu'ula Ioane Tu'a'u".

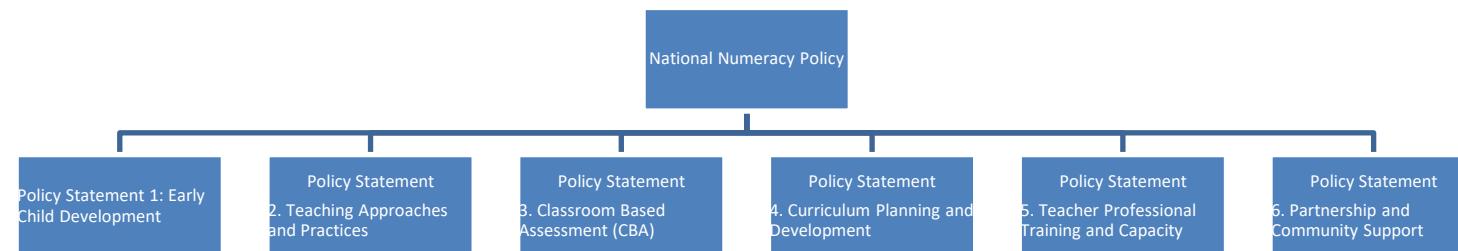
**HON. SEU'ULA IOANE TUĀ'AU**

A handwritten date in blue ink, appearing to read "22/5".

**DATE**

## 11. APPENDICES

### Appendix 1: Policy Overview Structure



#### Roles and Responsibilities

*(each group stated below has an important role to play to play in the implementation of the above statements)*

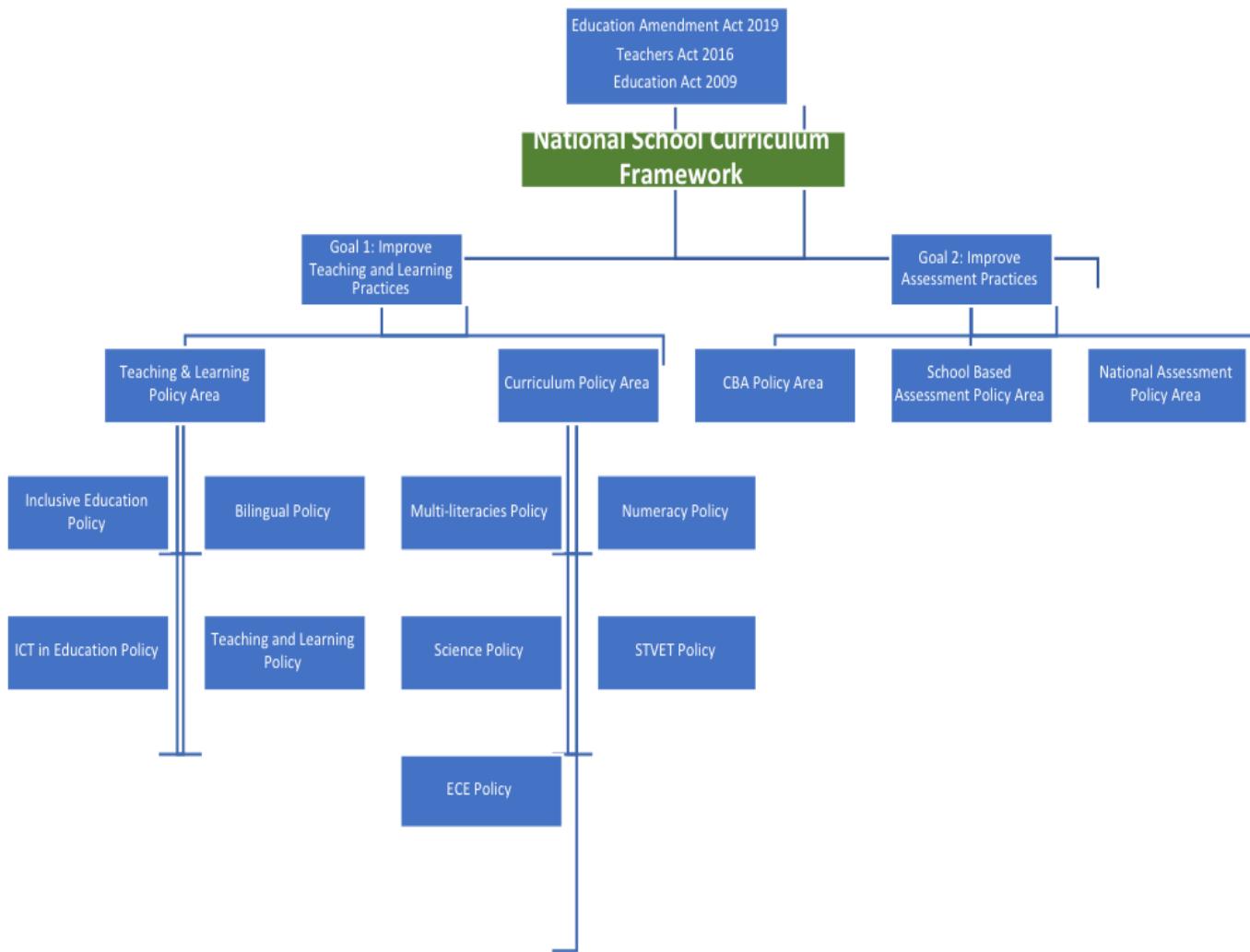
**Principals, Teachers, Parents and Caregivers, Community, Partners & Stakeholders, Volunteers, School Support Advisors, MEC**

Monitoring, Evaluation,  
Reporting

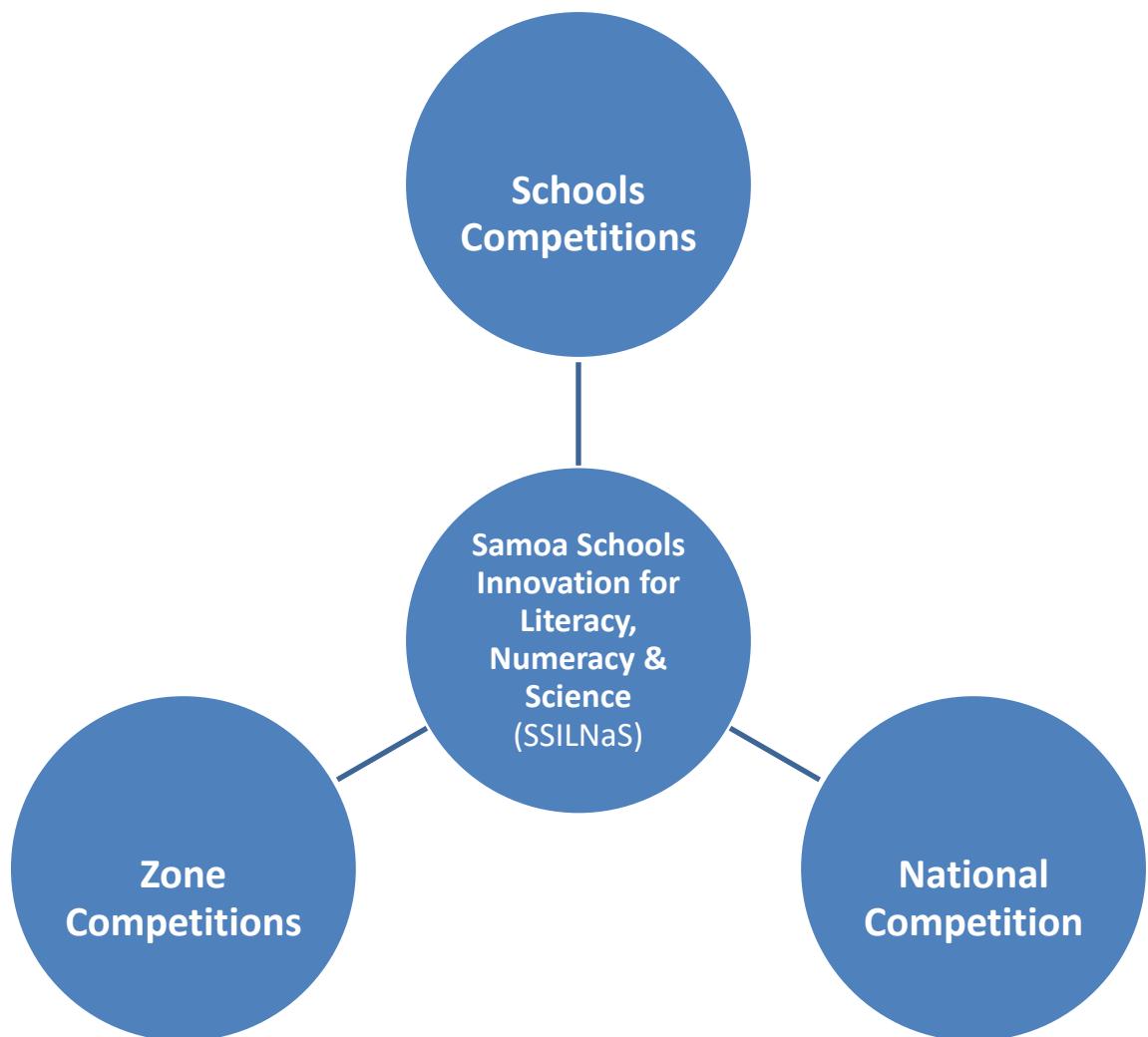
Monitoring, Evaluation,  
Reporting

Monitoring, Evaluation,  
Reporting

## Appendix 2: National Curriculum Framework

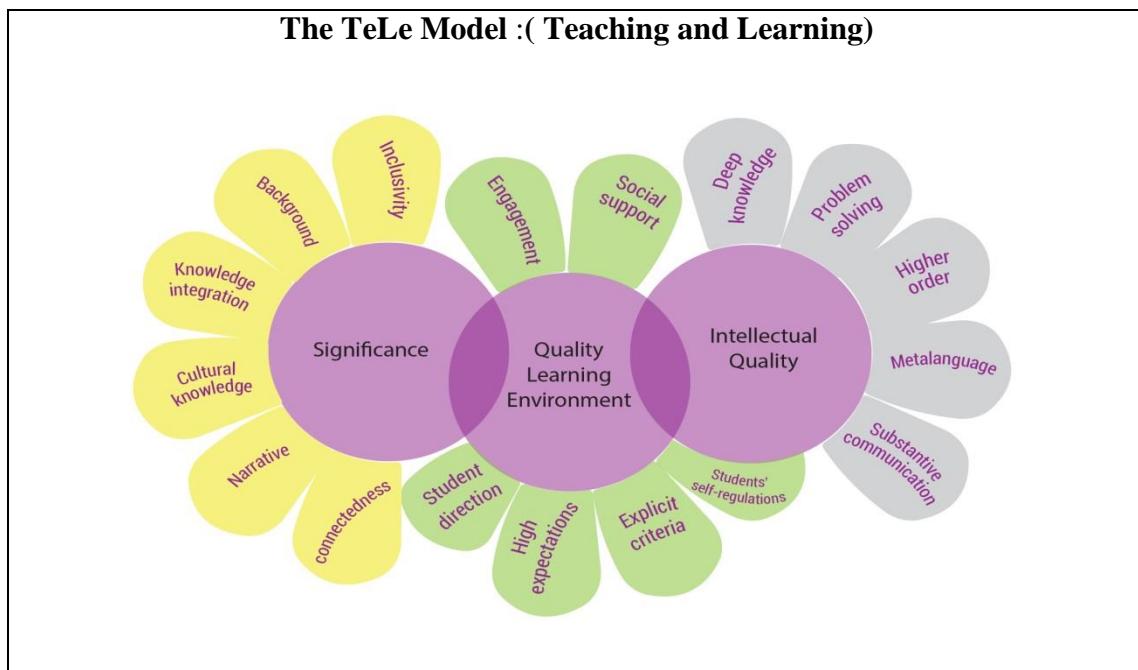


### Appendix 3: SSILNAS



## Appendix 4: The Teaching and Learning Model (TeLe Model)

The TeLe Model consists of three core components namely the Intellectual Quality, Quality Learning and Environment and Significance.



I. **Intellectual quality** refers to approaches which are challenging. They focus on building students to achieve better results. Students centered on deep understanding of important, practical concepts, skills and ideas. Teachers focus on developing the students' deeper understanding of the selected knowledge, skills, values and engage them in higher-order thinking.

II. **Quality learning environment** refers to approaches that generate classrooms where students and teachers work productively in an environment clearly focused on learning. Such approach develops positive relationships between teachers and students and those around them.

III. **Significance** refers to approaches that helps make learning meaningful and important to students. Such pedagogy draws clear connections to students' prior knowledge and how they practise their cultural knowledge and apply those to their current learning in the classroom.

## Appendix 5: Risk Management Plan

| No | Risk/Activity  | Risk Level       | Implications                                  | Mitigation Plan                                      |
|----|--|------------------|---|--|
| 1  | Policy is misinterpreted                                   | Low              | Slow rate of implementation                   | Consultations and workshops                          |
| 2  | Lack of cooperation between the school principal and staff | Medium           | Delay in implementation                       | Intervention by the School Support Advisors          |
| 3  | Full understanding of policies and strategies              | Moderate to High | Inconsistency of implementation of the policy | Intervention by the School Support Advisors and CDMD |
| 4  | Monitoring   | Moderate to High | Policy cannot be implemented on time          | Review strategies                                    |
| 5  | NNP goals not achieved                                     | High             | Ineffective implementation of the policy      | Review of the NNP                                    |

## Appendix 6: Implementation Plan

| Phase   | Action   | Timeframe           | Responsible Ministry/Organisation                     |
|---|--|---------------------|---|
| Endorsement Phase to finalise Numeracy Policy | Ongoing follow up  | Jun 2023 – Jun 2024 | MEC CORE and Full Executive, Cabinet                  |
| Awareness Phase                               | Conduct workshops with key stakeholders (eg; principals, teachers, parents, NUS, USP and relevant educational institutions and government agencies)  | Jul 1 – Dec 2024    | MEC CDMD<br>MEC PPRD<br>MEC PDD<br>MEC SGMD<br>MEC IT |
| Transition Phase                              | Professional development for principals and teachers to encourage the integration of the Numeracy Policy in their school plans which should be reflected in an improvement in their teaching responsibilities. | Jul 2024 – May 2025 | MEC CDMD<br>MEC PDD<br>MEC SGMD                       |
| Monitoring Phase                              | School visits to view initial application of ideas/strategies and problem solving to develop a higher quality learning and teaching force.   | 2025                | MEC   |
| Review Phase                                  | Evaluate/Conduct review on the effectiveness of policy implementation.   | 2029                | MEC   |

## Appendix 7: Monitoring and Evaluation Framework

| POLICY MONITORING & EVALUATION FRAMEWORK |   |                 |  |   |   |   |               |                         |                         |                         |                         |                         |                         |                      |                      |
|--|---|-----------------|--|---|---|---|---------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------|----------------------|
| National Numeracy Policy 2024 – 2029     |   |                 |  |   |   |   |               |                         |                         |                         |                         |                         |                         |                      |                      |
| TARGET                                   | SDG INDICATOR   | SDS KEY OUTCOME | GOALS  | Strategy  | Outcome   | Indicator   | Baseline Data | Year 1 Target FY 24/25  | Year 2 Target FY 25/26  | Year 3 Target FY 26/27  | Year 4 Target FY 27/28  | Year 5 Target FY 28/29  | Means of Verification   | Policy Documentation | Responsible division |
| 1. Improve Numeracy at all levels        | SDG 4 2017, 4.1.1 Proportion of children and young people achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex. In grades 2/3 At the end of primary at then of lower secondary: |                 | Enhance the quality of education and training for all learners | Strengthen support for all schools to improve implementation of the Math Curriculum | Students performance is improved in all Math subjects | % of SPELL Year 4 students meeting L3 & L4 for Numeracy | 2022 9%       | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | 5% increase of baseline | Statistical Digest 2023 | NNP                  | CDMD                 |
|  |   |                 |  |   |   | % of SPELL Year 6 students meeting L3 & L4 for Numeracy | 2022 12.5%    | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | 5% increase of baseline | Statistical Digest 2023 | NNP                  | CDMD                 |
|  |   |                 |  |   |   | % of SNAPE Year 8 students meeting L3 & L4 for Numeracy | 2022 91.1%    | 1% increase of baseline | Statistical Digest 2023 | NNP                  | CDMD                 |

|  |  |  |  |  |  |                                      |                         |                         |                         |                         |                         |                         |     |      |
|--|--|--|--|--|--|--------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----|------|
|  |  |  |  |  | % of Year 10 SNJSC students meeting L2 and above for Mathematics and General Mathematics | 2022 Mathematics 4% General Maths 0% | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | 5% increase of baseline | Statistical Digest 2023 | NNP | CDMD |
|  |  |  |  |  | % of Year 12 SSLC students meeting L2 and above for Mathematics                          | N/A                                  | Establish baseline      | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | Statistical Digest 2023 | NNP | CDMD |
|  |  |  |  |  | % of Year 4 students meeting L3-L8 in Numeracy for PILNA                                 | 2021 49%                             | 1% increase of baseline | No PILNA Exam           | No PILNA Exam           | No PILNA Exam           | 4% increase of baseline | PILNA Report            | NNP | CDMD |
|  |  |  |  |  | % of Year 6 students meeting L5-L8 in Numeracy for PILNA                                 | 2021 53%                             | 1% increase of baseline | No PILNA Exam           | No PILNA Exam           | No PILNA Exam           | 4% increase of baseline | PILNA Report            | NNP | CDMD |

|                                       |   |  |  |  | % of teachers trained in the use Maths CBA methods          | N/A | Establish baseline | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | CDMD Reports | NNP | CDMD |
|---------------------------------------|---|--|--|--|---|-----|--------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------|-----|------|
| 2. I<br>mprove Numeracy at all levels | SDG 4<br>2017, 4.1.1<br>Proportion of children and young people achieving at least a minimum proficiency level in (i) reading and (ii) Mathematics, by sex.<br><br>In grades 2/3<br>At the end of primary at then of lower secondary: |  | Enhance education access and opportunities at all levels | Increase participation and achievement of students at all levels | % of students' participation in SSILNAs Numeracy activities | N/A | establish baseline | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | CDMD reports | NNP | CDMD |
|                                       |   |  |  |  | Percentage of teachers upgrade in Mathematics field         | N/A | establish baseline | 1% increase of baseline | 2% increase of baseline | 3% increase of baseline | 4% increase of baseline | CDMD reports | NNP | CDMD |