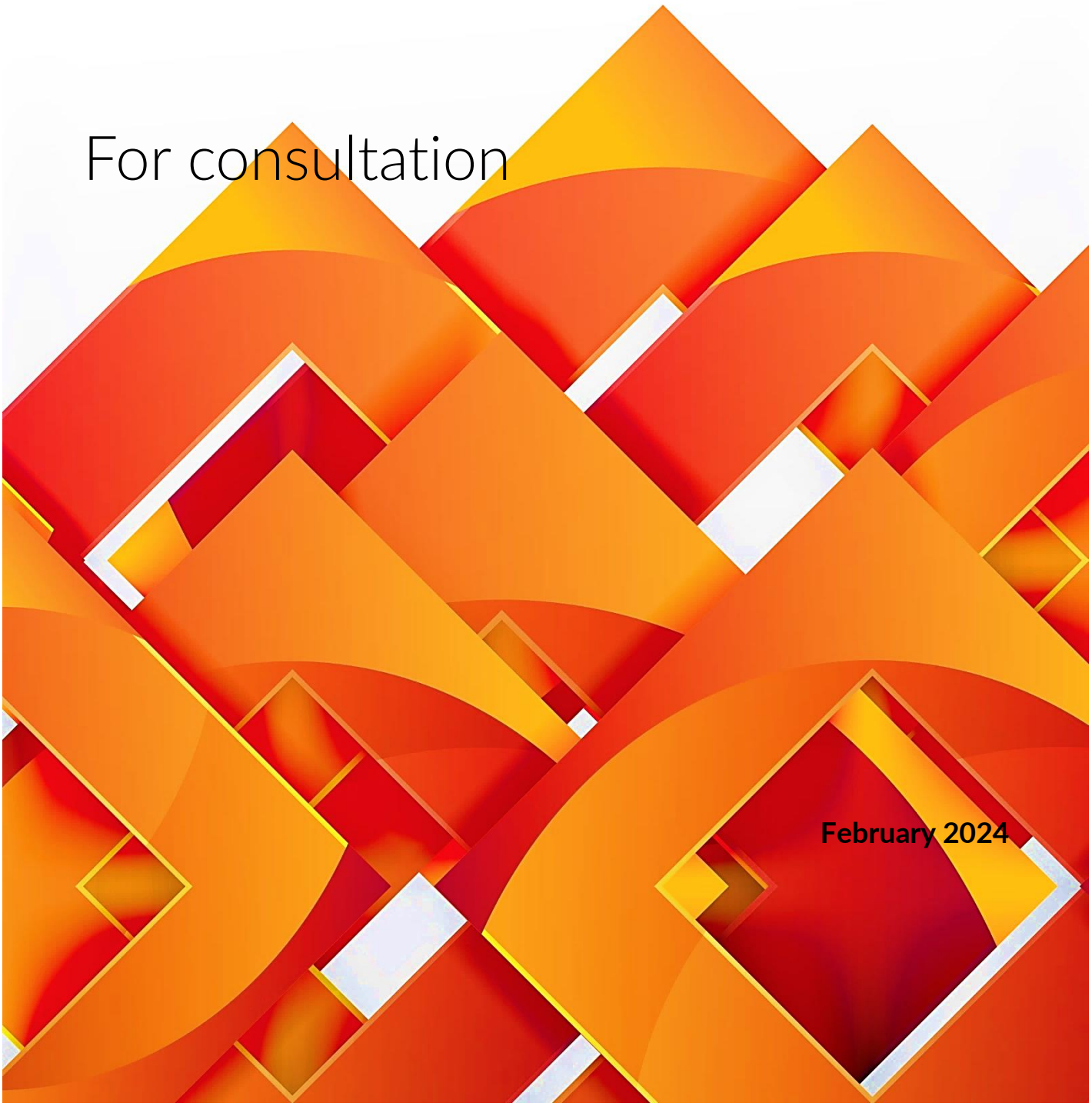
NCCA
An Chomhairle Náisiúnta Curaclaim agus Measúnachta
National Council for Curriculum and Assessment

Senior Cycle Level 1 Learning Programme: Numeracy

Curriculum area and modules

For consultation



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Introduction

The Senior Cycle Level 1 Learning Programme (SCL1LP) consists of a range of curriculum areas, each designed on a modular basis. There are six curriculum areas at the heart of the SCL1LP: Numeracy; Communication and Literacy; Personal Care; Being Part of the Community; Music and the Arts; and, Being Active.

The curriculum area of Numeracy consists of five modules. It is designed for a minimum of 200 hours of teaching time/class contact time over two years. Each module is designed for approximately 40 hours of teaching time/class contact time.

Module title	Recommended hours per module
Demonstrating an awareness of number	40
Understanding money	40
Reading and measuring time	40
Measurement	40
Using shape and space	40

Rationale

Numeracy is the ability to use mathematical understanding, applications and skills to solve problems and meet the demands of day-to-day life. Numeracy surrounds us in our daily lives and is fundamental to daily living. Everyday life provides meaningful ways to explore, engage with and understand numeracy, while everyday interactions enable the application of numerical problem-solving skills.

The learning outcomes identified in this curriculum area are designed to allow for a range of activities as well as multiple and personal forms of expression and engagement. Students should have a broad numeracy experience across home, school, and community.

The development of students' numeracy contributes to the development of key competencies in senior cycle and vice-versa. When this happens, all learning across senior cycle is supported and the development of important life skills that are essential to student independence are promoted. Students stand to benefit in many ways as they progress in learning pathways and as they transition to life beyond school.

Continuity and progression

This curriculum area is designed to consolidate and progress each student's learning in numeracy from junior cycle into senior cycle. The curriculum area is structured to provide continuity from the Level 1 Numeracy Priority Learning Unit (PLU) at junior cycle and to progress, enhance and deepen their learning in senior cycle. This helps to provide a continuous learning experience for students as they add to their competence in numeracy throughout senior cycle. It is important to make connections to prior learning at junior cycle and also to other modules where a competence in numeracy is required. This helps to reinforce and progress students' learning. Not only does this curriculum area aim to provide progression and consolidation of numeracy, it also aims to provide students with a sense of achievement and confidence in their learning as they transition to further services beyond school.

Teaching and learning

Students should use their senses to investigate, discover and explore objects, money and people through the concepts of shape, measure, time, pattern, and sequence. A critical aspect of learning

in this area is supporting students to engage with real-world situations where the use of numeracy is important. Teachers should use concrete materials and manipulatives to aid students' learning. Play is hugely beneficial for all students and providing opportunities to engage in games, play or sensory activities will help to reinforce learning. Students should be enabled to demonstrate learning in a manner that is meaningful, relevant and appropriate to them.

Module: Demonstrating an awareness of number

Module descriptor

This module supports students to engage with the representation of number in their environments through concrete, pictorial or visual representations with appropriate support. Students will explore the use of number in their environments and engage with familiar numerals. They will experiment with quantity by exploring the concept of addition and subtraction with visual supports and concrete manipulatives.

Students learn about	Students should be able to
Demonstrating an awareness of number Students are supported in developing and consolidating their sense of number by understanding and connecting numbers, objects and sets. Students should be given opportunities to count and quantify objects or people. They should explore ways in which numbers are used for quantifying sets. Participating in games can reinforce learning, for example, games where the difference between *one*, *more than one*, *some* and *a lot* is emphasised.	a. Explore, experience or participate in counting activities (concrete and non-concrete) b. Explore how counting can be used to solve problems relating to their everyday world c. Develop an awareness of *more*, *less* and *many* d. Count forwards with verbal, concrete manipulatives, and pictorial support e. Count and quantify objects or people with support f. Connect numbers to counted objects using supports g. Demonstrate how numbers are used for quantifying sets h. Demonstrate that the last number in a counted group indicates the quantity of the set i. Use number appropriately in play situations j. Demonstrate knowledge of number with the use of appropriate materials and supports k. Demonstrate a knowledge of *one*, *more than one*, *some* and *a lot* l. Demonstrate an understanding of the concept of *none*, *zero* and *all gone* m. Recognise the number zero represents nothing/none in terms of quantity n. Represent data with objects of reference such as pictures or symbols.

Module: Understanding money

Module descriptor

Through this module students explore and progress their understanding of money as they experience and attend to real-world situations where the use and the concept of money is applied. Students should be provided with opportunities to engage in monetary transactions in a variety of contexts to deepen their understanding.

Students learn about	Students should be able to
Understanding money Students are supported in understanding the notion that money has a purpose as they experience using money in many contexts, including real world contexts. Participating in activities where money is used to purchase items and experiencing cashless transactions is very beneficial for students.	a. Develop an awareness that coins and paper notes are both money b. Develop an awareness that money has a purpose and value c. Develop an awareness that items can be bought using coins, paper notes or a card d. Recognise the euro and cent symbols and appreciate that they represent money e. Recognise and use the language associated with money f. Purchase items using money g. Purchase items as part of a cashless transaction h. Attend to and/or count money.

Module: Reading and measuring time

Module descriptor

This module, with the use of appropriate aids such as clocks, spoken clock, Braille, visual timetables and visual calendars, supports students in their understanding of time. Students should be provided with opportunities to engage with the language, objects, symbols, signs, stimuli and activities associated with time, days of the week and significant seasonal events.

Students learn about	Students should be able to
Reading and measuring time Students explore language, objects and stimuli associated with significant personal and cultural events. Students participate in activities and actions that are used to transition from one activity or event to another.	a. Experience the physical movement of the hands on an analogue clock in a clockwise direction to indicate the passing of time b. Demonstrate an awareness of the clock as a tool for the measurement of time c. Engage with the order of daily routine (at home and at school) d. Engage with key transitions throughout the day e. Show an awareness of or recognise key times of the school day f. Demonstrate awareness of the difference between nighttime and daytime, morning time and evening time g. Experience and attend to the language of time in relation to self, family and school events and activities h. Experience and attend to the language of days, months and key seasonal events i. With the use of appropriate aids, sequence events according to time j. Recognise and experience a personally meaningful day of the week or month.

Module: Measurement

Module descriptor

This module sees measurement as an umbrella term for length, weight[1], temperature, capacity and area. Students explore and investigate measurable materials and objects. They engage and participate in activities on measurement in their immediate environment, while investigating and exploring objects in relation to measurement.

Students learn about	Students should be able to
Measurement Through real word examples and scenarios, students will be given the opportunity to experience and attend to the language of measurement and measurable objects while participating in the use of measurement for a purpose in their environment.	a. Explore everyday items and objects in relation to measurement or size b. Engage with the language and real world activities associated with measurement c. Engage with or attend to conversations and practical, hands-on measurement activities d. Attend to activities and discussions in which direct comparisons are made describing measurable objects e. Respond to instructions and questions involving various forms of measurement f. Explore different objects to compare their measurements g. Recognise and record comparisons, estimates and data on objects measured.

[1] Mass is the measurement of matter an object contains while weight is the gravitational pull on a object. The term weight has been used here as in schools many students use, and are familiar with, the term weight, as opposed to mass.

Module: Using shape and space

Module descriptor

In this module students progress in their recognition, understanding and identification of shapes in their immediate and wider environment. Students participate in activities where the language of movement and position is used while experimenting with the creation and movement of shapes. Students explore the features and properties of 2D and 3 D shapes through a wide variety of sensory experiences.

Students learn about	Students should be able to
Using shape and space Students experience, explore, and progress their understanding of the concept of shape and space in their many environments.	a. Recognise shapes in their environment b. Recognise the features of 2D, 3D and irregular shapes c. Attend to the sorting, classifying and comparing of objects according to their shape or size d. Create shapes with aids of appropriate materials and supports e. Engage with the language associated with shapes and objects f. Engage with shapes and build or create structures using solid shapes or technology g. Engage in the movement of shapes h. Experience shapes in different orientations i. Experience how shapes look when moved j. Attend to the language of movement and manipulation of shapes k. Move shapes for a purpose l. Engage with construction activities and spatial puzzles.