

# Senior Cycle Level 2 Learning Programme: Numeracy Curriculum area and modules

For introduction to schools in September 2024.

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## Introduction

The Senior Cycle Level 2 Learning Programme (SCL2LP) consists of a range of curriculum areas, each designed on a modular basis. There are four curriculum areas at the heart of the SCL2LP: Numeracy; Communication and Literacy; Personal Care; and, Electives.

The curriculum area of Numeracy consists of three modules. It is designed for a minimum of 180 hours of teaching time/class contact time over two years. Each module is designed for approximately 60 hours of teaching time/class contact time.

Module title	Recommended hours per module
Understanding number and money	60
Understanding and managing time	60
Understanding measurement, location and position	60

## 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.

To do this, students need to be able to think and communicate quantitatively; to make sense of data; to have a spatial awareness; to understand patterns and sequences; to reason mathematically, all in a variety of real-world contexts.

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, the world of work, and their adult lives.

## Continuity and progression

This curriculum area is designed to consolidate and progress students' competency in numeracy from junior cycle, as well as providing students with a sense of achievement and confidence in their learning. The curriculum area is structured to provide continuity from the Level 2 Numeracy Priority Learning Unit (PLU) at junior cycle and to progress, enhance and deepen their learning in senior cycle. Students are given opportunities to demonstrate how learning acquired in these modules can be linked to prior learning, to other modules and subjects. Students will apply their learning across the curriculum in areas such as money management, PE and culinary skills. This helps to reinforce learning and progress students' ability to use mathematical understanding, applications and skills to solve problems and meet the demands of day-to-day life. Students may go on to adult services, further education or occupations having developed essential skills for understanding and engaging with the world around them.

# Teaching and learning

Students engage in learning through real-world examples while using the appropriate and correct numerical language and symbols. Opportunities to use digital technologies in classes can further support student learning. A critical aspect of learning in this area is supporting students to engage with real-world situations and the use of concrete materials and manipulatives to aid their learning.

Students should be enabled to demonstrate learning in a manner that is meaningful, relevant and appropriate to them. Some students may require the use of assistive technology to support their communication and learning, while others may use augmentative or alternative communication systems. This curriculum area also acknowledges the nature of information communication technology (ICT) and many other forms of representation relevant to students, including screen-based communication.

# Module: Understanding number and money

## Module descriptor

To understand money, students must first understand number. The aim of this module is to enable students to understand the concept of number and money, how to quantify money, to conduct transactions confidently in their daily lives and appreciate the importance of managing money. Students recognise that numbers designate an amount or quantity, including money. Students explore money to realise and recognise that money has a worth and value.

## Students learn about

## Students should be able to

#### **Numbers**

Students learn to count, read, express numbers and engage with the many ways number can be used.

- a. Identify how many zeros for tens, hundreds thousands and millions
- **b.** Estimate quantities to the nearest value in real world contexts in 10s, 100s or 1000s
- c. Use numbers to designate an amount or quantity
- **d.** Identify situations where it is appropriate to add or subtract numbers and complete the operation
- e. Identify, recognise and use symbols for addition and subtraction
- f. Identify natural numbers from 0 to 1000
- **g.** Identify situations where one would multiply or divide and engage in the multiplication or division operation in real world contexts
- **h.** Construct any sentence using  $+ \div = x$  or words
- i. Recognise and name equal parts of a whole such as halves, quarters, thirds
- **j.** Connect halves and quarters to equal sharing and to groups
- **k.** Identify, name and express fractions of a quantity such as length, weight and capacity
- **I.** Identify, name and express fractions of a quantity such as time, an amount or a shape
- m. Engage with a fraction chart and identify equal fractions
- n. Demonstrate the rules of equal sharing in real world scenarios
- **o.** Use ratio to describe the relationship between two quantities.

## Students learn about

#### **Money**

Students learn to recognise money, appreciate that money has value and conduct transactions. The necessity of examining bills and receipts is explored here with different costs associated with items of different value.

## Students should be able to

- p. Sort coins and paper notes into groups to create a total amount
- **q.** Recognise that different coins and paper notes have different values in a shopping experience
- r. Undertake transactions using money
- s. Calculate the total cost of a list of items
- t. Round off prices to nearest one, ten, fifty, hundred euro
- u. Estimate a bill or a receipt and estimate change due
- v. Interpret a bill or a receipt
- w. Recognise that money is received and spent in different ways
- **x.** Plan and estimate the cost and savings required to attend an event or purchase an item
- **y.** Make a payment or transfer money online/using a device.

# Module: Understanding and managing time

## Module descriptor

The aim of this module is to enable students to be aware of the passing of time, read the time, understand different times of the day, use the language of time and develop confidence in using various instruments that tell or depict information related to time, such as digital clocks, visual timers, timetables or stop watches. This in turn supports students to develop an awareness of keeping track of time. Students may use calendars, visuals, schedules, timetables, plans of work, timers and clocks to support them in understanding and managing their time.

#### Students learn about

## Reading and measuring time

Students show awareness of daily patterns while applying basic knowledge of time to everyday activities and events.

## Students should be able to

- a. Recognise different instruments for telling the time
- b. Identify times on an analogue clock
- c. Read the time from a digital clock
- d. Examine time in 12 hour and 24-hour formats
- e. Recognise or identify the difference between a.m. and p.m.
- f. Use language related to time in different settings
- g. Recognise key times of the day on a clock
- **h.** Recognise how many seconds in a minute, minutes in an hour, hours in a day, days in a week, weeks in a month, months in a year
- i. Interpret and use a timeline
- i. Interpret and use a timetable
- **k.** Demonstrate the ability to calculate and interpret the passage of time
- **I.** Relate a difference in time to different places/regions.

## **Time management**

Students develop strategies to plan and manage time as part of their daily routines. They learn to recognise dates presented in different formats using aids to support planning and time management.

- Identify and use time management skills such as: adapt to be ready on time, prepare before a given time, allow time to clear up
- p. Identify and sequence events in their daily routine using associated language and aid
- **q.** Estimate and predict the time needed to undertake an activity or task
- **r.** Undertake an activity within a prescribed time and predict when a given amount of time has passed
- s. Use a calendar or timetable, in any format, for forward planning
- t. Use a transport timetable to calculate how long a journey will take
- **u.** Plan an entire day's activity using time, including journey times
- v. Recognise dates in a variety of formats.

# Module: Understanding measurement, location and position

## Module descriptor

This module focuses on the importance of measurement of length, distance, capacity, temperature, weight<sup>1</sup> and position and location in a student's everyday world. Students identify and use terms, language and symbols of measurement for length, distance, weight, temperature and location as well making calculations and measurements. In doing so, students develop their spatial awareness. They learn how language, visuals, symbols can be used to describe and show direction.

## Students learn about

## Students should be able to

#### Measurement

Students identify and use terms, language and symbols of measurement for length, distance, capacity and weight as well as calculating and describing findings with appropriate language.

- a. Handle and evaluate everyday objects for physical differences
- **b.** Read, understand and use terms, language and symbols to describe units of length, distance, capacity, temperature and weight
- **c.** Interpret metric units of measurement for length, distance, capacity, temperature and weight
- **d.** Measure and record the length of an object and the distance between two objects with appropriate support
- **e.** Compare and contrast the length, height, distance, capacity and weight of objects and record results appropriately
- **f.** Identify relationships between the length, height, distance, capacity and weight of two items
- g. Compare, contrast and order objects according to length, height and weight
- **h.** Interpret data presented in simple tables, bar charts, pie charts or patterns
- i. Select and use appropriate measuring tools to record and present length, distance, capacity and weight
- j. Understand the importance of accuracy in measurement of length, height, distance capacity, temperature and weight in real world scenarios.

<sup>&</sup>lt;sup>1</sup> 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.

## Students learn about

#### **Position and Location**

Students use spatial awareness for the purpose of orientation and navigation in school and local community. Students also explore the movements of different parts of the body and ways in which the body can move.

## Students should be able to

- k. Demonstrate an awareness of the position of their body in space
- I. Demonstrate direction and movement while using one's body
- **m.** Use appropriate vocabulary and gestures to describe positions such as on top of, at the bottom, inside, underneath, to the right of, to the left of
- n. Draw and use a simple map
- Locate key locations of one's community while using a map and describe and show the location
- p. Calculate and record the distance between two places on a map
- **q.** Show the location of an object on a simple grid system
- **r.** Recognise one's location in the community and use simple maps and routes to track and experience movement
- **s.** Plan, describe and prepare a journey for a day trip or event.

