

## SUMMARY

## Didactic programme for the area of

## MATHEMATICS

## 2nd year of Primary Education

Year 2023/2024

## INSTITUTO ESPAÑOL VICENTE CAÑADA BLANCH LONDON

ELABORATED BY THE TEACHING STAFF OF 2ND PRIMARY SCHOOL

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## FIRST TERM

#### LEARNING SITUATION

#### We practise with numbers up to 99

This learning situation is related to the area of Environmental Knowledge with the topic

The human body.

With this learning situation, students will solve logical situations, group, ungroup and compare 2-digit numbers, learn to approximate numbers to tens, add and subtract 2-digit numbers, differentiate between different types of lines, solve problems and work on non-conventional measurements, such as the span, the foot and the step.

#### BASIC KNOWLEDGE

#### A. Numerical sense

#### 1. Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

#### 2. Quantity

- Reasoned estimates of quantities in problem solving contexts, using rounding. Use of calculator.

- Reading, representation (including on the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999.

- Representation of the same quantity in different ways (manipulatively, graphically or numerically) and strategies for choosing the appropriate representation for each situation or problem.

#### Sense of operations

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy.

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, solving strategies and tools and properties. Identification of these as inverse operations.

#### 4. Relationships

#### **B.** Sense of measurement

#### **3. Estimation and relationships**

- Strategies for direct comparison and ordering of measures of the same magnitude-Natural numbers in everyday contexts: comparison and ordering.

#### C. Spatial sense

#### 2. Location and representational systems

- Relative position of objects in space and interpretation of movements: description in reference to oneself using appropriate vocabulary (above, below, in front of, behind, between, closer than, less close than, further than, less far than, less far than...).

#### **D.** Algebraic sense

#### 1. Patterns

- Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

. Two- and three-dimensional geometric shapes.

Simple two-dimensional geometric figures (triangles, quadrilaterals, pentagons, etc.) in everyday objects: identification and classification according to their elements (concave and convex, simple and complex). Circles and circumferences.

#### F. Socio-affective sense

Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

Teamwork, inclusion, respect and diversity.

- Identification and rejection of discriminatory attitudes towards individual differences in the classroom. Inclusive attitudes and acceptance of group diversity. Contribution of mathematics to the different fields of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

#### **LEARNING SITUATION**

#### More than 100 reasons.

This learning situation is related to the area of Environmental Knowledge with the topic Life in Society. With this learning situation, students will solve logical situations, discover the number 100 and work with hundreds, place 3-digit numbers on the number line, practice mental arithmetic, handle ordinal numbers up to the twentieth, solve problems using money, differentiate between different plane figures, understand what a side and a vertex are, play with the tangram, understand the relationship between addition and subtraction, learn to subtract by ungrouping the minuend and handle tables to make a recipe book.

#### **BASIC KNOWLEDGE**

#### A. Numerical sense

#### 1. Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

#### 2. Quantity

-Reading, representation (including the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999. -Representation of the same quantity in different ways (manipulatively, graphically or numerically) and strategies for choosing the appropriate representation for each situation or problem.

#### Sense of operations

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, solving strategies and tools and properties. Identification of these as inverse operations.

#### 4. Financial education

European monetary system: coins (1, 2 euros) and euro banknotes (5, 10, 20, 50 and 100), value and equivalence. Use in real contexts of the price of everyday items.

#### **B.** Sense of measurement

#### 1. Magnitude

Units of measurement of time (year, month, week, day and hour) in everyday situations.

## Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

## C. Spatial sense

## 1. Geometric figures in two and three dimensions.

- Simple two-dimensional geometric figures (triangles, quadrilaterals, pentagons, etc.) in everyday objects: identification and classification according to their elements (concave and convex, simple and complex). Circles and circumferences.

- Strategies and techniques for constructing simple geometric figures in one, two or three dimensions in a manipulative way by composition (puzzles, geo-plane, drawing tools, computer applications, etc.) and decomposition.

Basic geometric vocabulary: verbal description of the elements and properties of simple geometric figures.

#### **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

## 2.Mathematical modelling

Guided modelling process (drawings, diagrams, schemes, diagrams, manipulatives, etc.). dramatisations...) in understanding and solving everyday problems.

#### E. Stochastic sense

## 1. Organisation and analysis of data

Simple strategies for collecting, sorting and counting qualitative and quantitative data in small samples.

#### F. Socio-affective sense

## 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

#### 2. Teamwork, inclusion, respect and diversity.

Identification and rejection of discriminatory attitudes towards individual differences in the classroom. Inclusive attitudes and acceptance of group diversity.
Active participation in teamwork: positive interaction and respect for the work of

others. Decision-making based on the different contributions of team members. - Contribution of mathematics to the different areas of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

## **LEARNING SITUATION**

#### Let's take off!

This learning situation is related to the area of Environmental Knowledge with the topic Light, sound and forces.

With this learning situation, students will solve logical situations, discover the place value in 3-digit numbers, differentiate between odd and even numbers, perform sums of 3 addends and identify the parts of a sum, practice mental arithmetic, solve and create subtraction situations, handle coins and euro banknotes to solve problems, classify triangles and quadrilaterals, play with the geoplane and create a scientific exhibition.

## BASIC KNOWLEDGE

#### A. Numerical sense

## 1. Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

## 2. Quantity

- Reading, representation (including the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999.

- Representation of the same quantity in different ways (manipulative, graphical or numerical) and strategies for choosing the appropriate representation for each situation or problem.

#### 3. Sense of operations

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, solving strategies and tools, and properties. Identification of these as inverse operations.

4. Financial education

- European monetary system: coins (1, 2 euros) and euro banknotes (5, 10, 20, 50 and 100), value and equivalence. Use in real contexts of the price of everyday items.

## **B.** Sense of measurement

#### 1. Magnitude

- Units of measurement of time (year, month, week, day and hour) in everyday situations.

#### 2. Measurement

- Processes for measuring by repeating a unit and by using conventional (rulers, tape measures scales, calendars...) and non-conventional instruments in familiar contexts.

## 3. Estimation and relationships

- Strategies for direct comparison and ordering of measurements of the same magnitude.

- Estimation of measurements (distances, sizes, masses, capacities, etc.) by direct comparison with other measurements.

Evaluate results of measurements and estimations or calculations of measurements by identifying, analysing and reasoning whether or not they are possible.

## C. Spatial sense

## Two- and three-dimensional geometric figures.

- Simple two-dimensional geometric shapes (triangles, quadrilaterals, pentagons, etc.) in everyday objects: identification and classification according to their elements (concave and convex, simple and complex). Circles and circumferences.

- Basic geometric vocabulary: verbal description of the elements and properties of simple geometric shapes.

Properties of two-dimensional geometric shapes: exploration using manipulatives and digital tools.

## 2. Location and systems of representation

- Relative position of objects in space and interpretation of movements: description in reference to oneself using appropriate vocabulary (above, below, in front of, behind, between, closer than, less close than, further than, less far than, less far than...).

## **3.** Geometric visualisation, reasoning and modelling

- Geometric modelling in solving problems related to the other senses.

## **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

## F. Socio-affective Sense

## 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

## 2. Teamwork, inclusion, respect and diversity.

Identification and rejection of discriminatory attitudes towards differences.

- Individuals present in the classroom. Inclusive attitudes and acceptance of the diversity of the group.

- Active participation in teamwork: positive interaction and respect for the work of others. Decision-making based on the different contributions of the team members. Contribution of mathematics to the different areas of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

## SECOND TERM

## LEARNING SITUATION

## Searching for the best family

This learning situation is related to the area of Environmental Knowledge with the topic Animals.

With this learning situation, students will solve logical situations, compose, decompose and order 3-digit numbers, differentiate between circle and

circumference, handle the geoplane, subtract 3-digit numbers, practise.

## **BASIC KNOWLEDGE**

## A. Numerical sense

## 1. Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

## 2. Quantity

- Reading, representation (including the number line and with manipulatives),

composition, decomposition and recomposition of natural numbers up to 999. - Representation of the same quantity in different ways (manipulatively, graphically

or numerically) and strategies for choosing the appropriate representation for each situation or problem.

## 3. Sense of operations

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy.

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, solving strategies and tools and properties. Identification of these as inverse operations.

## 4. Relationships

Natural numbers in everyday contexts: comparison and ordering.

## **B.** Sense of measurement

## 1. Magnitude

- Units of time (year, month, week, day and hour) in everyday situations.

## C. Spatial sense

## 1. Two and three dimensional geometric shapes

Simple two-dimensional geometric shapes (triangles, quadrilaterals, pentagons, etc.) in everyday objects: identification and classification according to their elements (concave and convex, simple and complex). Circles and circumferences

Strategies and techniques of construction of simple geometric figures of one, two or three dimensions in a manipulative way by composition (puzzles, geo-plane, drawing tools, computer applications, etc.) and decomposition.

## D. Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

## E. Stochastic Sense

## 1. Organisation and analysis of data

- Strategies for recognising the main elements and extracting relevant information from simple statistical graphs of everyday life (pictograms, bar charts...).

Simple strategies for collecting, classifying and counting qualitative and quantitative data in small samples.

## F. Socio-affective sense

## 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions in mathematics. Curiosity and initiative in learning mathematics.

## 2. Teamwork, inclusion, respect and diversity.

- Identification and rejection of discriminatory attitudes towards individual

differences in the classroom. Inclusive attitudes and acceptance of group diversity. - Active participation in teamwork: positive interaction and respect for the work of

others. Decision-making based on the different contributions of team members.

- Contribution of mathematics to different areas of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

#### **LEARNING SITUATION**

#### The nature corner

This learning situation is related to the area of Environmental Knowledge with the topic Adaptation to the environment.

With this learning situation, students will solve logical situations, work with 3-digit numbers, solve hieroglyphics, understand the relationship between addition and subtraction and create problems based on this relationship, know the parts of a subtraction and understand and perform the subtraction test, differentiate between different geometric bodies (pyramid, cone, sphere, cylinder, prism and cube) and create their own geometric bodies, solve problems using coins and euro banknotes, interpret and represent bar graphs and handle counting.

#### **BASIC KNOWLEDGE**

#### A. Numerical sense

#### **1.** Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

#### 2. Quantity

- Reading, representation (including the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999.

- Representation of the same quantity in different ways (manipulatively, graphically or numerically) and strategies for choosing the appropriate representation for each situation or problem.

#### 3. Sense of operations

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, strategies and tools of resolution and properties. Identification of these as inverse operations.

#### 4. Financial education

European monetary system: coins (1, 2 euros) and euro banknotes (5, 10, 20, 50 and 100), value and equivalence. Use in real contexts of the price of everyday items.

#### C. Spatial sense

#### 1. Two- and three-dimensional geometrical shapes

- Simple two-dimensional geometric shapes (triangles, quadrilaterals, pentagons, etc.) in everyday objects: identification and classification according to their elements (concave and convex, simple and complex). Circles and circumferences.

- - Strategies and techniques for constructing simple geometric figures in one, two or three dimensions by manipulatively composing (puzzles, geo-plane, drawing tools, computer applications, etc.) and decomposing.

- Basic geometric vocabulary: verbal description of the elements and properties of simple geometric figures.

- Properties of two-dimensional geometric figures: exploration using manipulatives and digital tools.

#### 2. Location and systems of representation

- Relative position of objects in space and interpretation of movements: description in reference to oneself using appropriate vocabulary (above, below, in front of, behind, between, closer than, less close than, further than, less far than, less far than...).

#### 3. Geometric visualisation, reasoning and modelling

- Geometric modelling in solving problems related to the other senses.

- Geometric relations: recognition in the environment.

#### **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

#### E. Stochastic Sense

#### 1. Organisation and analysis of data

- Strategies for recognising the main elements and extracting relevant information from simple statistical graphs of everyday life (pictograms, bar charts...).

- Simple strategies for collecting, classifying and counting qualitative and quantitative data in small samples.

- Representation of data obtained through counting using simple statistical graphs and manipulative and technological resources.

#### F. Socio-affective sense

#### 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

#### 2. Teamwork, inclusion, respect and diversity.

- Identification and rejection of discriminatory attitudes towards individual differences in the classroom. Inclusive attitudes and acceptance of group diversity.

- Active participation in teamwork: positive interaction and respect for the work of others. Decision-making based on the different contributions of team members.

- Contribution of mathematics to the different fields of human knowledge from a gender perspective. People of historical interest in mathematics: the Pythagorean school.

## **LEARNING SITUATION**

#### What a storm!

This learning situation is related to the area of Environmental Knowledge with the topic Atmospheric phenomena.

With this learning situation, students will solve logical situations, practice mental arithmetic strategies, reinforce the use of place value in 3-digit numbers, approximate numbers to the tenth and the hundredth on the number line, differentiate the usefulness of different units of measurement (metre, centimetre and kilometre), discover the properties of addition, carry out sums of 3 digits, make sums of 3 digits and add them to the number line, centimetre and kilometre), discover the properties of 3 addends, handle the times in e and a half on the analogue and digital clock, subtract 3-digit numbers by ungrouping the minuend, create and solve addition and subtraction problems and record information in tables. **BASIC KNOWLEDGE** 

#### A. Number sense

#### 2. Quantity

- Reasoned estimates of quantities in problem solving contexts, using rounding. Use of calculator.

- Reading, representation (including the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999.

- Representation of the same quantity in different ways (manipulative, graphical or numerical) and strategies for choosing the appropriate representation for each

situation or problem.

#### 3. Sense of operations

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, strategies and tools for solving and properties. Identification of these as inverse operations.

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy.

#### **B.** Sense of measurement

#### 1. Magnitude

- Measurable attributes of objects (length, mass, capacity), distances and times.

- Units of measurement of time (year, month, week, day and hour) in everyday situations.

- Units of measurement of time (year, month, week, day and time) in everyday situations.

#### 2. Measurement

Processes of measuring by repeating a unit and by using conventional (rulers, tape measures, scales, calendars...) and non-conventional instruments in familiar contexts.

## C. Spatial Sense

#### 2. Location and systems of representation

Relative position of objects in space and interpretation of movements: description in reference to oneself using appropriate vocabulary (up, down, front, back, back and forth, etc.).

#### **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

#### **F.** Socio-affective sense

## 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

## 2. Teamwork, inclusion, respect and diversity.

Identification and rejection of discriminatory attitudes towards individual differences in the classroom. Inclusive attitudes and acceptance of group diversity.
Active participation in teamwork: positive interaction and respect for the work of others. Decision-making based on the different contributions of team members. Contribution of mathematics to different areas of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

## SECOND AND THIRD TERM

## **LEARNING SITUATION**

#### A whole world to discover

This learning situation is related to the area of Environmental Knowledge with the topic The movements of the earth.

With this learning situation, students will solve logical situations, they will make series on the number line, sums of more than 3 addends and sums with repeated

addends. They will practise mental arithmetic strategies, practice the relationship between addition and subtraction and create situations in which they work on this relationship, solve problems with coins and euro banknotes, differentiate between angle, vertex and side, form figures on the geoplane and invent stories about new constellations.

#### **BASIC KNOWLEDGE**

#### A. Numerical sense

#### 1. Counting

- Various counting strategies, ascending and descending, and systematic counting in everyday situations in quantities up to 999, following different criteria: 2 by 2, 3 by 3, 5 by 5, 10 by 10... Drawing up tables. Establishing a criterion.

#### 3. Sense of operations

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, strategies and tools for solving and properties. Identification of these as inverse operations.

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy.

#### . Financial education

European monetary system: coins (1, 2 euros) and euro banknotes (5, 10, 20, 50 and 100), value and equivalence. Use in real contexts of the price of everyday items.

#### **B.** Sense of measurement

#### 1. Magnitude

- Measurable attributes of objects (length, mass, capacity), distances and times.

- Units of measurement of time (year, month, week, day and hour) in everyday situations.

- Units of measurement of time (year, month, week, day and time) in everyday situations.

## 2. Measurement

Processes of measuring by repeating a unit and by using conventional instruments (rulers, tape measures, scales, calendars...) and non-conventional instruments in familiar contexts.

## C. Special sense

## 1. Two- and three-dimensional geometric figures

- Basic geometrical vocabulary: verbal description of elements and properties of simple geometric shapes.

- Properties of two-dimensional geometric figures: exploration using manipulatives and digital tools.

## 2. Location and systems of representation

Relative position of objects in space and interpretation of movements: description in reference to oneself using appropriate vocabulary (above, below, in front of, behind, between, closer than, less close than, further than, less far than, less far than...).

## **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

#### F. Socio-affective sense

#### 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions

about mathematics. Curiosity and initiative in learning mathematics.

2. Teamwork, inclusion, respect and diversity.

Identification and rejection of discriminatory attitudes towards individual differences in the classroom. Inclusive attitudes and acceptance of group diversity.
Active participation in teamwork: positive interaction and respect for the work of others. Decision-making based on the different contributions of team members. Contribution of mathematics to the different areas of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

## THIRD TERM

## **LEARNING SITUATION**

#### Tic,tac,tac

This learning situation is related to the area of Environmental Knowledge with the topic The passing of time.

With this learning situation, students will solve logical situations, compare weights and discover the kilo, make equivalences between kilos, half kilos, quarters of a kilo, interpret numerical information on product labels and purchase receipts, learn to read the time in point, quarter, minus quarter and half on analogue and digital clocks, make equivalences between minutes and seconds, practise mental calculation strategies and differentiate between certain, possible and impossible events.

## **BASIC KNOWLEDGE**

#### A. Number sense

## 2. Quantity

- Reasoned estimates of quantities in problem solving contexts, using rounding. Use of calculator.

- Reading, representation (including the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999.

- Representation of the same quantity in different ways (manipulative, graphical or numerical) and strategies for choosing the appropriate representation for each situation or problem.

## 3. Sense of operations

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, strategies and tools for solving and properties. Identification of these as inverse operations.

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy.

## 4. Financial education

- European monetary system: coins (1, 2 euros) and euro banknotes (5, 10, 20, 50 and 100), value and equivalence. Use in real contexts of the price of everyday items.

## **B.** Sense of measurement

## 1. Magnitude

Measurable attributes of objects (length, mass, capacity), distances and times.
Units of measurement of time (year, month, week, day and hour) in everyday situations.

- Conventional (metre, kilo and litre) and non-conventional units in everyday situations. Choice of the most appropriate unit for measuring an object.

- Units of time (year, month, week, day and hour) in everyday situations.

## 2. Measuring

Processes of measuring by repeating a unit and using conventional instruments (rulers, tape measures, scales, calendars, etc.) and non-conventional instruments in familiar contexts.

## **3. Estimation and relationships**

- Strategies for direct comparison and ordering of measurements of the same magnitude.

- Estimation of measurements (distances, sizes, masses, capacities...) by direct comparison with other measurements.

#### **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

#### **F.** Socio-affective sense

#### 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

#### 2. Teamwork, inclusion, respect and diversity.

- Identification and rejection of discriminatory attitudes towards individual differences in the classroom. Inclusive attitudes and acceptance of group diversity.

Active participation in teamwork: positive interaction and respect for the work of others. Decision-making based on the different contributions of the team members.
Contribution of mathematics to different areas of human knowledge from a gender perspective. Historical figures of interest in mathematics: the Pythagorean school.

## **LEARNING SITUATION**

## The time capsule

This learning situation is related to the area of Environmental Knowledge with the topic History.

With this learning situation, students will solve logical situations and movements on the plane, they will review 3-digit numbers, they will do sums of repeated addends, they will learn to make equivalences between litres, half-litres and quarts, they will review addition and subtraction, they will solve problems using coins and euro notes and they will play geometry games.

#### **BASIC KNOWLEDGE**

## A. Number sense

## 2. Quantity

- Reasoned estimates of quantities in problem solving contexts, using rounding. Use of calculator.

- Reading, representation (including on the number line and with manipulatives), composition, decomposition and recomposition of natural numbers up to 999.

- Representing the same quantity in different ways (manipulatively, graphically or numerically) and strategies for choosing the appropriate representation for each situation or problem.

#### 3. Sense of operations

- Addition and subtraction of natural numbers solved with flexibility and sense: usefulness in contextualised situations, strategies and tools of resolution and properties. Identification of these as inverse operations.

- Mental calculation strategies with natural numbers up to 999. Reasoned explanation of the selected strategy.

#### 4. Relationships

- Natural numbers in everyday contexts: comparing and ordering.

#### 4. Financial literacy

- European monetary system: coins (1, 2 euros) and euro banknotes (5, 10, 20, 50 and 100), value and equivalence. Use in real-life contexts of the price of everyday items.

#### **B.** Sense of measurement

#### 1. Magnitude

- Units of measurement of time (year, month, week, day and hour) in everyday situations.

#### 3. Estimation and relationships

- Strategies for direct comparison and ordering of measurements of the same magnitude.

- Estimation of measurements (distances, sizes, masses, capacities, etc.) by direct comparison with other measurements.

- Evaluation of results of measurements and estimations or calculations of measurements by identifying, analysing and reasoning whether they are possible or not.

#### C. Spatial sense

#### 2. Location and representational systems

Relative position of objects in space and interpretation of movements: description in reference to oneself using appropriate vocabulary (above, below, in front of, behind, between, closer than, less close than, further than, less far than, less far than...).

#### **D.** Algebraic sense

## 1. Patterns

Strategies for identification, oral description, discovery of hidden elements and extension of sequences from regularities in a collection of numbers, figures or pictures.

#### F. Socio-affective sense

## 1. Beliefs, attitudes and emotions

Emotional management: strategies for identifying and expressing one's own emotions about mathematics. Curiosity and initiative in learning mathematics.

#### 2. Teamwork, inclusion, respect and diversity.

- Identification and rejection of discriminatory attitudes towards individual

differences in the classroom. Inclusive attitudes and acceptance of group diversity. - Active participation in teamwork: positive interaction and respect for the work of

others. Decision-making based on the different contributions of team members.

- Contribution of mathematics to different areas of human knowledge from a gender

perspective. Historical figures of interest in mathematics: the Pythagorean school.

#### 2.-Methodological and didactic principles

The methodological principles that will guide teaching practice are set out in Royal Decree 157/2022, of 1 March, which establishes the organisation and minimum teaching of Primary Education, and in Order EFP/678/2022, of 15 July, which establishes the curriculum and regulates the organisation of Primary Education in the area of management of the Ministry of Education and Vocational Training.

- The methodology used in this area, as it cannot be otherwise, must be assumed from the perspective of "know-how", that is to say, the learning processes must be carried out on the basis of experience, from which the pupils will be able to extract and also apply the knowledge and skills they have acquired.

-The learning processes must be based on experience, from which students will also be able to extract and apply knowledge in other areas throughout the courses.

- On the other hand, although the contents have been defined by blocks, this does not mean that they are watertight compartments, but that they must be approached in such a way that in their practical application they must necessarily be developed as a whole.

- Although the role of the teacher is fundamental, he/she must be a mentor who allows the student to learn from his/her own experience, being the active protagonist in the process of awareness, appreciation and artistic creation.

- Subsequently, through the use, first intuitive and then guided, of different materials and instruments, children will acquire a series of basic concepts that will enable them to make a coherent reading of images. images and sounds, and feel the emotions that arise from artistic expression. To this end, different artistic models will be progressively suggested, with the aim of broadening their possibilities of valuing the artistic manifestations recognised by culture, and Information and Communication Technologies will be used as valid instruments for provoking creative situations and broadening knowledge. The activities proposed by the teacher will have to encourage the student to explore and acquire knowledge, motivating him/her to achieve his/her interest and finding strategies that will allow him/her to solve the problems that arise in the learning process and to understand the ideas and concepts.

- Likewise, the teacher will have to create the appropriate environment that favours collaborative learning in such a way that the student recognises his or her own role and that of the other members of the group as an important source of knowledge, so that the children enjoy the process of creation as much or more than the final work.

#### 3.-Transversal contents: British values and protected characteristics

BRITISH VALUES	PROTECTED CHARACTERISTICS
<ul> <li>Democracy:</li> <li>The rule of law</li> <li>Individual Liberty</li> <li>Mutual respect for the tolerance of those with different faiths and beliefs and for those without faith</li> <li>Respect all the religions / beliefs</li> </ul>	<ul> <li>Race</li> <li>Religion or belief</li> <li>Disability</li> <li>Gender reassignment</li> </ul>

Cross-curricular content to be worked on throughout the year:

## DEVELOPMENT OF ACTIVITIES RELATED TO 'BRITISH VALUES'

- **Democracy.** Carrying out democratic votes during the development of the classes in the area for the taking of different collective decisions.

- The rule of law. Poster in the classroom, in a visible place, showing: "The rule of law".

- **Individual Liberty**. Encouragement of individual decision-making, through the choice of different projects, personal work and in-depth studies to be carried out in the area.

- Mutual respect for the tolerance of those with different faiths and beliefs and for those without faith. Respect for cultural differences, beliefs and levels of intellectual and motor development that students may present during the development of classes in the area.

# DEVELOPMENT OF ACTIVITIES RELATED TO 'PROTECTED CHARACTERISTICS'.

- **Race, religion or belief, disability, gender reassignment and disability**. Respect for all people and non-discrimination on the basis of sex, race, religion or belief will be promoted in the development of lessons in the area. The theme of children's rights will be worked on in depth.

#### 4.-Procedures and instruments for the assessment of students' learning

The assessment will be conducted by means of three procedures:

\*Written procedure.

\*Oral procedure.

\*Attitudinal procedure.

Within each procedure we will find the following assessment instruments.

WRITTEN	ORAL	ATTITUDINAL
<ul> <li>Various student tasks carried out in the daily activity of the class.</li> <li>Various student assessment activities (photocopiable worksheets, written test). written test).</li> <li>Group work.</li> <li>ICT activities: interactive.</li> <li>Notebook.</li> <li>Specific tests.</li> </ul>	<ul> <li>Individual and collective questions.</li> <li>Oral presentation.</li> <li>Interventions in the classroom</li> </ul>	<ul> <li>Observation and assessment of the degree of participation of each pupil and the quality of their interventions.</li> <li>Order, cleanliness, quality.</li> </ul>

The final result of each procedure will be adapted to the following percentage-based grading criteria.

ASSESSMENT TOOLS	PERCENTAGE IN THE GRADE
Oral and written tests.	50 %
- Exams 25%.	
- Oral presentations: 10%.	
- Objective tests: 10%.	
- Activities related to the reading plan 5%	

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Total mark	100%
Individual student's notebook	20 %
- ICT tasks	
- Individual work	
- Cooperative work	
Class work.	30 %