Cañada Blanch Spanish School
Founded 1972

PROGRAMMING EXTRACT COURSE 2023-2024

DEPARTMENT OF MATHEMATICS

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1 MATHEMATICS 1ST ESO

1.1 BASIC KNOWLEDGE AND TIMING

A.- Meaning numeric

1. - Count.

- Strategies varied Delaware account systematic is situations Delaware the life everyday: beginning additive and multiplicative is the resolution Delaware issues.
- Adaptation of the count to the size of the numbers is problems of the daily life.

2.- Quantity.

- The numbers Indo-Arabic. Introduction of the zero and the numbers negatives.
- Numbers big and little ones: order Delaware magnitude. powers Delaware 10 Delaware exponentnatural.
- Strategies Delaware estimate to a priori of the result approximate Delaware a operation oh of a problem.
- Whole numbers: meaning, expression and comparison of quantities.
- Numbers non-negative fractionals: meaning as ratio, rate u operator.
- Numbers decimals: meaning like fractions with denominator power of 10.
- conference and representation Delaware numbers whole using diverse tools and strategies, including the straight numerical horizontal and vertical.
- conference and representation Delaware numbers fractional is the straight numerical.
- Reading and representing decimal numbers as fractions whose denominators son powers Delaware 10.
- Percentages greater que 100% and minors que 1 %.

3.- Meaning of the operations.

- Strategies mental calculation with numbers natural, fractions and decimals.
- Operations scam numbers whole, fractional and decimals Delaware Format concrete, pictorial and symbolic is situations contextualized.
- Inverse relationships between whole number operations, addition and subtraction; multiplication and division; raise Alabama squares and extract the root square: comprehension and utilization is the simplification and resolution Delaware issues.
- Effect of arithmetic operations with whole numbers, fractions and decimals: multiplication and division by numbers between 0 and 1 represented as a fraction or decimal. Properties of operations (addition, subtraction, multiplication, division): calculations of manner efficient scam numbers natural and whole so much mentally as Delaware Format

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manual, scam calculator you sheet Delaware calculation. discovery Delaware properties scam the calculator.

4.- Relationships.

- factors, multiple and dividers. Factoring is numbers cousins paraca solverissues: Strategies and tools diverse.
- Comparison and ordination Delaware numbers fractional, decimals and percentages: situation exact oh approximate is the straight numerical.
- Relationship between numbers fractional, numbers decimals and percentages is contextsdiverse.
- selection Delaware the representation suitable paraca a same amount is each situationoh problem.
- Patterns and regularities numerical: representation and analysis, verbally andthrough boards and graphics.

5.- Reasoning proportionally.

- Ratios and proportions: use of numbers, tables and graphs in representation Delaware magnitudes and their relations.
- Percentages: comprehension and resolution of issues.
- Situations Delaware proportionality is different contexts: analysis and development Delaware methods for solving problems (percentage increases and decreases, discounts, taxes, etc.).

6.- Financial education.

- Information numerical is contexts financial simple (products banking, receipts, bills, etc.): ID my interpretation.
- Methods paraca the take Delaware decisions Delaware consumption responsible: control Delaware income and bills. boards Delaware decision.

B.- Sense of the extent

1.- Magnitude.

- Attributes measurable Delaware the objects objects physical and math of the flat: length, perimeter and area. Investigation and relationship between the themselves.
- Strategies Delaware Elecciano Delaware the units and operations appropriate is issues que imply extent.
- Estimation and relations.
- formulation Delaware conjectures about measures oh relations between the themselves Delaware objects objectsof the flat.
- Strategies paraca the take Delaware decisions of the degree Delaware precision required according to theextent.

2.- Measurement.

- history of the meter as unit Delaware extent universal and of the birth of the systeminternational Delaware measures.
- Length and area Delaware figures flat: deduction, interpretation and application.
- Representations Delaware objects objects geometric blueprints scam properties oh relations fixed, as the lengths Delaware the sides oh the measures Delaware the angles.

C.- Meaning space

1.- Figures geometric Delaware two dimensions.

- The Greek geometry: Rule and compass. Contributions from Euclid.
- Plane geometric figures: description and classification based on their properties, characteristics oh relations between their items. Relations geometric as the congruence and the likeness is figures flat: ID and application.
- Construction of flat geometric figures with manipulative and digital tools. (programs Delaware geometry dynamic).

2.- Location and System of representation.

- Spatial relationships: location and description using geometric coordinates is he flat.

3.- Movements and transformations.

- Transformations elemental using tools digital oh manipulatives: translations and symmetries.
- display, reasoning and modeling geometric.

4.- Modeling geometric. Relations numerical is issues: model Delaware bars.

- Geometric relationships in mathematical and non-mathematical contexts (art, science, etc.).

D.- Meaning algebraic

1.- Patterns.

- patterns, guidelines and regularities numerical and geometric: observation, continuationand generalization is cases simple.

2.- Mathematical model.

- Modeling of real situations of direct proportionality and estimation of big quantities wearing representations math.
- Strategies Delaware deduction Delaware conclusions reasonable to leave Delaware United Nations model mathematical.

3.- Variables.

- Variable: comprehension as worth indeterminate oh expression Delaware patterns general.

4.- Equality and inequality.

- Principle Delaware equivalence Delaware expressions algebraic.
- Strategies for searching for solutions in linear equations in situations of the life daily.

5.- Relationships and functions.

- Direct proportionality relationships: identification and comparison of different modes of representation, tables, graphs or algebraic expressions, and their properties leave Delaware they.
- Computational thinking.
- Generalization and transfer Delaware processes Delaware resolution Delaware issues to otherssituations.
- Strategies tools is the interpretation and modification Delaware algorithms: diagrams Delaware flowand pseudocode.
- Strategies Delaware formulation Delaware issues susceptible Delaware be analyzed throughprograms and others tools.

E.- Meaning stochastic

1.- Organization and analysis of data.

- origins analysis history data, situation current perspectives and Of future.
- Strategies Delaware collection and organization Delaware data Delaware variables stays is everyday life situations. Difference between variables and individual values. Tables of frequency. Analysis and interpretation of statistical tables and graphs of qualitative variables, quantitative discreet and quantitative continuous is contexts real: graphic Delaware points, bars (vertical, horizontal, stacked, etc.), pictograms, histograms (simple and bidirectional) and Delaware sectors. graphics misleading.
- graphics statistics: representation (bars, sectors) through different technologies (calculator, sheet of calculus, applications, etc.) choice of more appropriate.
- Measures Delaware location (media, medium and fashion Delaware variables discreet): interpretation and calculation scam support technological is situations real. assessment Delaware the suitability Delaware the Elecciano Delaware the media oh the medium as representative Delaware the variableconcrete.
- Analysis of the impact of adding or removing data from a set on measures of location.
- Variability. Interpretation of the range and calculation with technological support in situations real.
- Comparison of two sets of data graphically based on the measurements of location and dispersion.

2.- Inference.

Data relevant paraca give answer to issues raised is research statistics: presentation Delaware the information originating Delaware a sample through tools digital.

F.- Socio-affective sense

1.- Beliefs, attitudes and emotions.

- Management emotional: emotions que intervene is he learning Delaware the math.
- helplessness acquired.
- Strategies Delaware promotion Delaware the curiosity, the initiative, the perseverance and the resilienceis he learning Delaware the math.
- Strategies Delaware promotion Delaware the flexibility cognitive: opening to changes Delaware strategy andtransformation of the mistake is chance Delaware learning.

2.- Work as a team and decision making.

- techniques cooperatives paraca optimize he job is equipment and share and buildknowledge mathematical.

behaviors empathic and Strategies Delaware management of conflicts.

3.- Inclusion, respect and diversity.

- Attitudes inclusive and acceptance Delaware the diversity present is he classroom Delaware math and is the society. assessment Delaware the diversity as a wealth.
- The contribution Delaware the math Alabama development Delaware the different areas of the knowledge humans from a perspective Delaware gender.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3
UD1, UD2, UD3,	UD 6, UD 7	UD 10, UD 11,
UD4, UD5	UD 8, UD 9	UD 12, UD 13

1.2 EVALUATION CRITERIA

Specific competence 1.

1.1- Interpret mathematical problems by organizing the data, establishing the relationships between them and understanding the questions asked.

1.2- Apply appropriate tools and strategies that contribute to problem solving.

1.3- Obtain mathematical solutions to a problem, activating knowledge and using the necessary technological tools.

Specific competence 2.

2.1.- Check the mathematical correctness of the solutions to a problem.

2.2- Check the validity of the solutions to a problem and their coherence in the proposed context, evaluating the scope and impact of these from different perspectives (gender, sustainability, responsible consumption, etc.).

Specific competence 3.

3.1.- Formulate and verify simple conjectures in a guided manner by analyzing patterns, properties and relationships.

3.2.- Pose variants of a given problem by modifying some of its data or some condition of the problem.

3.3.- Use appropriate technological tools in the investigation and verification of conjectures or problems.

Specific competence 4.

4.1.- Recognize patterns, organize data and decompose a problem into simpler parts, facilitating its computational interpretation.

4.2.- Model situations and solve problems effectively by interpreting and modifying algorithms.

Specific competence 5.

5.1.- Recognize the relationships between mathematical knowledge and experiences, forming a coherent whole.

5.2.- Make connections between different mathematical processes by applying previous knowledge and experiences.

Specific competence 6.

6.1.- Recognize situations that can be formulated and resolved using mathematical tools and strategies, establishing connections between the real world and mathematics and using the processes of research: inferring, measuring, communicating, classifying and predicting.

6.2.- Identify coherent connections between mathematics and other subjects by solving contextualized problems.

6.3.- Recognize the contribution of mathematics to the progress of humanity and its contribution to overcoming the challenges demanded by today's society.

Specific competence 7.

7.1.- Represent mathematical concepts, procedures, information and results in different ways and with different tools, including digital ones, visualizing ideas, structuring mathematical processes and assessing their usefulness for sharing information.

7.2.- Develop mathematical representations that help in the search for resolution strategies for a problematic situation.

Specific competence 8.

8.1.- Communicate information using appropriate mathematical language, using different media, including digital, orally and in writing, when describing, explaining and justifying reasoning, procedures and conclusions.

8.2.- Recognize and use the mathematical language present in everyday life, communicating messages with mathematical content with precision and rigor.

Specific competence 9.

9.1- Manage one's emotions, develop mathematical self-concept as a tool, generating positive expectations in the face of new mathematical challenges.

9.2.- Show a positive and persevering attitude, accepting reasoned criticism when facing different mathematics learning situations.

Specific competence 10.

10.1.- Actively collaborate and build relationships by working with mathematics in heterogeneous teams, respecting different opinions, communicating effectively, thinking critically and creatively, and making informed decisions and judgments.

10.2.- Participate in the distribution of tasks that must be carried out as a team, providing value, promoting inclusion, active listening, assuming the assigned role and taking responsibility for one's own contribution to the team.

1.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 65%

- Notebook tests: 10%
- Class notebook: 15% (evaluated according to the rubric)
- Homework and classwork: 5%
- Reading comprehension work test: 5%

At the end of the quarter, a global exam may be taken and in that case, it will have a specific weight greater than that of the partial exams within the 65% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

1.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and final opportunity to recover the subject by taking a second recovery exam.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

2 MATHEMATICS 2ND ESO

2.1 BASIC KNOWLEDGE AND TIMING

A. Meaning numeric.

Count.

- Strategies varied Delaware account systematic is situations Delaware the life: principle of the decade is the resolution Delaware issues.
- Adaptation of the count to the size of the numbers is problems of the daily life.

Amount.

- origin and utilization Delaware the fractions is the antiquity (Egypt, India, Greece).
- Numbers big and little ones: powers Delaware 10 Delaware exponent whole and use Delaware thecalculator.
- Strategies Delaware estimate of the squares and the root square Delaware United Nations number is contextsdiverse.
- Numbers rational: understanding, expression decimal and use in real contexts. Conference, representation, comparison. and ordering of numbers rational.

Sense of the operations.

- Calculation strategies mental scam natural, rational numbers and decimals.
- Operations with whole numbers, rationals and decimal expressions in contexts real.
- Relations inverses between the operations Delaware numbers rational, addition and subtraction; multiplication and division; raise Alabama squares and extract the root square: comprehension and utilization is the simplification and resolution Delaware issues.
- effect Delaware the operations scam numbers whole, rational and decimals: empowerment and filing.
- Properties of operations (addition, subtraction, multiplication, division and potentiation): calculations efficiently with natural numbers, integers, rationals and decimals both mentally as Delaware Format manual, scam calculator you sheet Delaware calculation.

Relations.

- Comparison and ordination Delaware numbers rational and expressions decimals. Situationexact oh approximate is the straight numerical.
- Selection Delaware the representation suitable paraca a same amount is each situationoh problem.
- Patterns and regularities numerical: representation, analysis and generalization through boards, graphics and, when sea possible, rules symbolic.
- Reasoning proportionally.
- Situations Delaware proportionality is different contexts: analysis and development Delaware methods for resolution of problems (similarities, scales, linear equations, etc.).

Financial education.

- Information numerical is contexts financial (products Delaware saving my investment): ID my interpretation.
- Methods paraca the take Delaware decisions Delaware consumption responsible: planning andbudget. boards Delaware decision.

B. Sense of the extent.

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Magnitude.

- Attributes measurable Delaware the objects objects physical and math of the space: area and volume. Investigation and relationship between the themselves.
- Strategies Delaware Elecciano Delaware the units and operations appropriate is issues que imply extent.
- Estimation and relations.
- formulation Delaware conjectures about measures oh relations between the themselves Delaware objects objects of the space.
- Strategies paraca the take Delaware decisions of the degree Delaware precision required according to the extent.

Measurement.

- history Delaware the extent of the darling (radio Delaware the land, distance Earth-Moon, etc.).
- Area and volume of figures three-dimensional: deduction, interpretation and application.
- Representations blueprints Delaware objects objects three-dimensional is the display and resolution Delaware issues Delaware areas.
- Representations Delaware objects objects geometric three-dimensional scam properties oh fixed relationships, like the lengths of the sides or measures Delaware The angles.

Sense space.

- Figures two and three dimensional geometric shapes.
- Greek Geometry: Rule and compass. Contributions of Thales and Pythagoras. Figures geometric three-dimensional: description and classification is function Delaware their properties, characteristics oh relations between their items.
- Relations geometric as the congruence, the likeness and the relationship Pythagorean is figures blueprints and three-dimensional: ID and application.
- Construction Delaware figures geometric three-dimensional scam tools manipulative and digital (programs Delaware geometry dynamic).

Location and System of representation.

- Relations spatial: location and description through coordinates.
- movements and transformations.
- Transformations elemental using tools digital: turns and homothecies.
- display, reasoning and modeling geometric.
- Modeling geometric. Relations algebraic is issues: model Delaware bars.
- Relations geometric is contexts math and No math (art, science, etc.).

C. Meaning algebraic.

Patterns.

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- patterns, guidelines and regularities numerical and geometric: representation and analysiswearing words, boards and graphics.
- Mathematical model.
- Modeling real situations through linear functions using representations math and language algebraic.
- Strategies Delaware deduction Delaware conclusions reasonable to leave Delaware United Nations modelmathematical.
- Variable.
- The resolution Delaware equations to look long Delaware the history, is particular the methodsgeometric Delaware Al- Kwarizmi .
- Variable: comprehension as constant, parameter oh unknown.

Equality and inequality.

- Relations linear is situations Delaware the life daily oh mathematically relevant: expression through algebra symbolic.
- Principle Delaware equivalence Delaware expressions algebraic is the resolution Delaware issuesbases is relations linear.
- Strategies Delaware search Delaware solutions is equations and systems linear and equations quadratic is situations Delaware the life daily.
- Equations: resolution through he use Delaware the technology.

Relationships and functions.

- Relations quantitative is situations Delaware the life everyday: functions linear and related.
- Relations linear: ID and comparison Delaware different modes Delaware representation, tables, graphs or algebraic expressions, and their properties from they.
- Strategies for deducing the relevant information of a function through the use Delaware different representations symbolic.

Computational thinking.

- Generalization and transfer Delaware processes Delaware resolution Delaware issues to others situations.
- Strategies tools is the interpretation and modification Delaware algorithms: structures conditionals. Strategies Delaware formulation Delaware issues susceptible Delaware be analyzed through programs and others tools.

D. Meaning stochastic.

Uncertainty.

- Phenomena random: ID. space sample. Events associates to United Nations random experiment. Events sure, impossible, complementary oh contrary.

- experiments simple: planning, simulation scam tools technological and analysis Delaware the uncertainty associated.
- determination and comparison Delaware the probability theoretical (Ruler Delaware Laplace) and experimental Delaware United Nations event and his contrary is experiments random.

Inference.

- Formulation of appropriate questions that allow us to know the characteristics of interests Delaware a population. Population and sample.
- Strategies for deducing conclusions from a sample for the purpose of issuance judgments and make appropriate decisions. Analysis of the representativeness of samples taken is different situations.

E. Socio-affective sense.

beliefs, attitudes and emotions.

- Management emotional: emotions que intervene is he learning Delaware the math.
- «Blockades mathematicians.
- Strategies Delaware promotion Delaware the curiosity, the initiative, the perseverance and the resilienceis he learning Delaware the math.
- Strategies Delaware promotion Delaware the flexibility cognitive: opening to changes Delaware strategy andtransformation of the mistake is chance Delaware learning.
- job as a team and decision making.
- techniques cooperatives paraca optimize he job is equipment and share and buildknowledge mathematical.
- behaviors empathic and Strategies Delaware management of conflicts.

Inclusion, respect and diversity.

- Attitudes inclusive and acceptance Delaware the diversity present is he classroom Delaware math and is the society. assessment Delaware the diversity as a wealth.
- The contribution Delaware the math Alabama development Delaware the different areas of the knowledge humans from a perspective Delaware gender.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3

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UD1, UD2, UD3,	UD 5, UD 6	UD 9, UD 10
UD3, UD4	UD 7, UD 8	UD 11, UD 12

2.2 EVALUATION CRITERIA

Specific competence 1.

1.1- Interpret mathematical problems by organizing the data, establishing the relationships between them and understanding the questions asked.

1.2- Apply appropriate tools and strategies that contribute to problem solving.

1.3- Obtain mathematical solutions to a problem, activating knowledge and using the necessary technological tools.

Specific competence 2.

2.1.- Check the mathematical correctness of the solutions to a problem.

2.2- Check the validity of the solutions to a problem and their coherence in the proposed context, evaluating the scope and impact of these from different perspectives (gender, sustainability, responsible consumption, etc.).

Specific competence 3.

3.1.- Formulate and verify simple conjectures in a guided manner by analyzing patterns, properties and relationships.

3.2.- Pose variants of a given problem by modifying some of its data or some condition of the problem.

3.3.- Use appropriate technological tools in the investigation and verification of conjectures or problems.

Specific competence 4.

4.1.- Recognize patterns, organize data and decompose a problem into simpler parts, facilitating its computational interpretation.

4.2.- Model situations and solve problems effectively by interpreting and modifying algorithms.

Specific competence 5.

5.1.- Recognize the relationships between mathematical knowledge and experiences, forming a coherent whole.

5.2.- Make connections between different mathematical processes by applying previous knowledge and experiences.

Specific competence 6.

6.1.- Recognize situations that can be formulated and resolved using mathematical tools and strategies, establishing connections between the real world and mathematics and using the processes of research: inferring, measuring, communicating, classifying and predicting.

6.2.- Identify coherent connections between mathematics and other subjects by solving contextualized problems.

6.3.- Recognize the contribution of mathematics to the progress of humanity and its contribution to overcoming the challenges demanded by today's society.

Specific competence 7.

7.1.- Represent mathematical concepts, procedures, information and results in different ways and with different tools, including digital ones, visualizing ideas, structuring mathematical processes and assessing their usefulness for sharing information.

7.2.- Develop mathematical representations that help in the search for resolution strategies for a problematic situation.

Specific competence 8.

8.1.- Communicate information using appropriate mathematical language, using different media, including digital, orally and in writing, when describing, explaining and justifying reasoning, procedures and conclusions.

8.2.- Recognize and use the mathematical language present in everyday life, communicating messages with mathematical content with precision and rigor.

Specific competence 9.

9.1- Manage one's emotions, develop mathematical self-concept as a tool, generating positive expectations in the face of new mathematical challenges.

9.2.- Show a positive and persevering attitude, accepting reasoned criticism when facing different mathematics learning situations.

Specific competence 10.

10.1.- Actively collaborate and build relationships by working with mathematics in heterogeneous teams, respecting different opinions, communicating effectively, thinking critically and creatively, and making informed decisions and judgments.

10.2.- Participate in the distribution of tasks that must be carried out as a team, providing value, promoting inclusion, active listening, assuming the assigned role and taking responsibility for one's own contribution to the team.

2.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 65%
- Notebook tests: 10%
- Class notebook: 15% (evaluated according to the rubric)
- Homework and classwork: 5%
- Reading comprehension work test: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 65% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

2.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and final opportunity to recover the subject by taking a second recovery exam.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

3 MATHEMATICS 3ºESO

3.1 BASIC KNOWLEDGE AND TIMING

A.-Sense numeric.

Count.

- Strategies varied Delaware account systematic is situations Delaware the life: techniquescombinatorial is the resolution Delaware issues.
- Adaptation of the count to the size of the numbers is problems of the daily life.
- Amount.
- origins of irrational numbers: pi and fi.
- big numbers and little: Exponential notation and scientist with calculator.
- Realization Delaware estimates scam the precision required. Control Delaware mistakes.

Sense of the operations.

- Strategies calculation mental scam natural, fractions and decimals.
- Operations scam numbers whole, rational my irrational is situations contextualized. Relations inverses between the operations Delaware numbers rational my irrational, addition and subtraction; multiplication and division; power and root: comprehension and utilization is the simplification and resolution Delaware issues.

Relations.

- Comparison and ordination Delaware numbers rational my irrational (estate squares, Pi), is contexts diverse.
- Selection Delaware the representation suitable paraca a same amount is each situationoh problem.
- Patterns and regularities numerical: generalization, when sea possible, wearingrules symbolic.

Reasoning proportionally.

- Situations Delaware proportionality is different contexts: analysis and development Delaware methods paraca the resolution Delaware issues (earring, histograms Delaware frequencies, probability, etc.).

Financial education.

- Information numerical in contexts financial simple: interpretation.
- Methods paraca the take Delaware decisions Delaware consumption responsible: relations quality- price and value-price is contexts everyday. boards Delaware decision.

B.-Sense of the extent.

Magnitude.

- Attributes measurable Delaware the objects objects math: earring and rate Delaware variation media. Investigation and relationship between the themselves.
- Strategies Delaware Elecciano Delaware the units and operations appropriate is issues que imply extent.

Estimation and relations.

- Formulation of conjectures about measures or relationships between the same.
- Strategies paraca the take Delaware decisions of the degree Delaware precision required according to the extent.

Measurement.

- origins of the study Delaware the probability.
- The probability as extent associated to the uncertainty Delaware experiments random.
- Probability subjective.

Sense space.

- Figures two and three dimensional geometric shapes.
- origin of the Cartesian geometry: Fermat and Descartes.
- Figures geometric blueprints and three-dimensional: places geometric.
- Use of the geometric relationships in the resolution of issues.
- Construction Delaware figures geometric as places geometric scam tools digital (programs Delaware geometry dynamic, reality increased, etc.).

Location and System of representation.

- Relations spatial: location and description through coordinates geometric and others systems Delaware representation.
- movements and transformations.
- Transformations elemental using tools digital: composition Delaware movements. Introduction to the movements is he space.
- display, reasoning and modeling geometric. Modeling geometric. Relations numerical and algebraic is the resolution Delaware issues.
- Relations geometric is contexts math and No math (art, science, etc.).

C.- Meaning algebraic.

Patterns.

- , geometric and functional patterns, guidelines and regularities : representation and analysis wearing words, boards and graphics.
- Mathematical model.

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- Modeling Delaware situations real through functions linear and quadratic wearingrepresentations math and language algebraic.
- Strategies Delaware deduction Delaware conclusions reasonable to leave Delaware United Nations modelmathematical.
- Variable.
- History of the resolution of the equation second degree.
- Variable: understanding as expression of quantities que they vary together.

Equality and inequality.

- relationships , situations of everyday lifemathematically relevant: expression through algebra symbolic.
- Principle Delaware equivalence Delaware expressions algebraic is the resolution Delaware issuesbases is relations linear and quadratics.
- Strategies Delaware search Delaware solutions is equations and systems linear andequations quadratic is situations diverse.
- Equations: resolution through he use Delaware the technology.

Relationships and functions.

- Relations quantitative in situations of the daily life: quadratic functions.
- Relations quadratics: ID and comparison Delaware different modes Delaware representation, tables, graphs or algebraic expressions, and their properties from they.
- Strategies for deducing the relevant information of a function through the use Delaware different representations symbolic.

Computational thinking.

- Generalization and transfer Delaware processes Delaware resolution Delaware issues to otherssituations.
- Strategies tools is the interpretation and modification Delaware algorithms: loops.
- Strategies Delaware formulation Delaware issues susceptible Delaware be analyzed throughprograms and others tools.

D.- Meaning stochastic.

Organization and analysis of data.

- Strategies Delaware collection and organization Delaware data Delaware situations Delaware the life dailythat involve a single statistical variable. Difference between population and sample. Tables of frequencies.
- Analysis and interpretation of statistical tables and graphs of qualitative variables, discrete quantitative and continuous quantitative measurements in real contexts: histograms, box and intolerant, cartograms, radials, evolution graphs and combined. Deceptive graphics.

- graphics statistics: representation through different technologies (calculator, sheet Delaware calculation, Applications, etc.) and Elecciano of the further appropriate.
- Location measures (mean, median, mode, quartiles and percentiles) interpretation and calculation scam support technological is situations real. Variability. Interpretation of the standard deviation. Calculation with technological support in situations real.
- Analysis of the impact of adding or removing data from a set on measures of location and dispersion. Description of how these changes alter the shape and distribution Delaware the data.
- Comparison of two sets of data based on location measures and dispersion.

Uncertainty.

- Random phenomena: space sample. Operations scam events.
- experiments simple planning, realization and analysis Delaware the uncertainty associated.
- Assignment Delaware the probability to events associates to United Nations experiment random.
- Probability the Union my intersection of events.

Inference.

- Formulation of appropriate questions that allow us to know the characteristics of interests Delaware a population. Population and sample.
- Data relevant paraca give answer to issues raised is research statistics: presentation Delaware the information originating Delaware a sample through tools digital.
- Strategies for deducing conclusions from a sample for the purpose of issuance judgments and make appropriate decisions. Analysis of the representativeness of samples taken is studies published.

E.- Socio-affective sense.

beliefs, attitudes and emotions.

- Management emotional: emotions que intervene is he learning Delaware the math.
- Self-awareness and self-regulation.
- Strategies Delaware promotion Delaware the curiosity, the initiative, the perseverance and the resilience is he learning Delaware the math.
- Strategies Delaware promotion Delaware the flexibility cognitive: opening to changes Delaware strategy and transformation of the mistake is chance Delaware learning.

job as a team and decision making.

- techniques cooperatives paraca optimize he job is equipment and share and build knowledge mathematical.

- behaviors empathic and Strategies Delaware management of conflicts.

Inclusion, respect and diversity.

- Attitudes inclusive and acceptance Delaware the diversity present is he classroom Delaware math and is the society. assessment Delaware the diversity as a wealth.
- The contribution Delaware the math Alabama development Delaware the different areas of the knowledge humans from a perspective Delaware gender.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3
UD1, UD2	UD 5, UD 6	UD 9, UD 10
UD3, UD4	UD 7, UD 8	UD 11

3.2 EVALUATION CRITERIA

Specific competence 1.

1.1- Interpret mathematical problems by organizing the data, establishing the relationships between them and understanding the questions asked.

1.2- Apply appropriate tools and strategies that contribute to problem solving.

1.3- Obtain mathematical solutions to a problem, activating knowledge and using the necessary technological tools.

Specific competence 2.

2.1.- Check the mathematical correctness of the solutions to a problem.

2.2- Check the validity of the solutions to a problem and their coherence in the proposed context, evaluating the scope and impact of these from different perspectives (gender, sustainability, responsible consumption, etc.).

Specific competence 3.

3.1.- Formulate and verify simple conjectures in a guided manner by analyzing patterns, properties and relationships.

3.2.- Pose variants of a given problem by modifying some of its data or some condition of the problem.

3.3.- Use appropriate technological tools in the investigation and verification of conjectures or problems.

Specific competence 4.

4.1.- Recognize patterns, organize data and decompose a problem into simpler parts, facilitating its computational interpretation.

4.2.- Model situations and solve problems effectively by interpreting and modifying algorithms.

Specific competence 5.

5.1.- Recognize the relationships between mathematical knowledge and experiences, forming a coherent whole.

5.2.- Make connections between different mathematical processes by applying previous knowledge and experiences.

Specific competence 6.

6.1.- Recognize situations that can be formulated and resolved using mathematical tools and strategies, establishing connections between the real world and mathematics and using the processes of research: inferring, measuring, communicating, classifying and predicting.

6.2.- Identify coherent connections between mathematics and other subjects by solving contextualized problems.

6.3.- Recognize the contribution of mathematics to the progress of humanity and its contribution to overcoming the challenges demanded by today's society.

Specific competence 7.

7.1.- Represent mathematical concepts, procedures, information and results in different ways and with different tools, including digital ones, visualizing ideas, structuring mathematical processes and assessing their usefulness for sharing information.

7.2.- Develop mathematical representations that help in the search for resolution strategies for a problematic situation.

Specific competence 8.

8.1.- Communicate information using appropriate mathematical language, using different media, including digital, orally and in writing, when describing, explaining and justifying reasoning, procedures and conclusions.

8.2.- Recognize and use the mathematical language present in everyday life, communicating messages with mathematical content with precision and rigor.

Specific competence 9.

9.1- Manage one's emotions, develop mathematical self-concept as a tool, generating positive expectations in the face of new mathematical challenges.

9.2.- Show a positive and persevering attitude, accepting reasoned criticism when facing different mathematics learning situations.

Specific competence 10.

10.1.- Actively collaborate and build relationships by working with mathematics in heterogeneous teams, respecting different opinions, communicating effectively, thinking critically and creatively, and making informed decisions and judgments.

10.2.- Participate in the distribution of tasks that must be carried out as a team, providing value, promoting inclusion, active listening, assuming the assigned role and taking responsibility for one's own contribution to the team.

3.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 65%
- Notebook tests: 10%
- Class notebook: 15% (evaluated according to the rubric)
- Homework and classwork: 5%
- Reading comprehension work test: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 65% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

3.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation

following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and final opportunity to recover the subject by taking a second recovery exam.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

4 MATHEMATICS B - 4TH ESO

4.1 BASIC KNOWLEDGE AND TIMING

A.- Meaning numeric.

Amount.

- Making estimates in various contexts analyzing and limiting the error task is function Delaware the precision required. Mistake absolute and relative.
- expression Delaware quantities through numbers real scam the precision required: approximation of irrational numbers with a certain number of significant figures. approach Delaware issues scam solutions irrational.
- different representations Delaware a same amount: expressions irrational, fractional, decimals and percentages Delaware Format numerical and visual.

Sense of the operations.

- Operations scam numbers real is the resolution Delaware situations contextualized.
- powers and logarithms.
- Properties and inverse relations of operations: calculations with real numbers, including scam tools digital. use Delaware the calculator paraca the deduction and checking Delaware properties.

Relations.

- The sets numerical (natural, whole, rational and real): relations between them and properties.
- Order of numbers on the number line. Intervals and semilines. Representation and description formal.
- Reasoning proportionally.

- Situations of direct and inverse proportionality in different contexts: development and analysis Delaware methods paraca the resolution Delaware issues. boards, graphics and relations functional.

B.- Sense of the extent.

Measurement.

- Origin and use of the trigonometry to length of the history. Reasons trigonometric Delaware United Nations angle sharp and their relations: application to the resolution Delaware issues. The slope and their relation with a angle at simple situations.

Change.

- Graphic study of the growth and decrease of functions in life contexts. everyday life with the support of technological tools: absolute, relative and media.

C.- Meaning space.

Figures two and three dimensional geometric shapes.

- geometry is he art is the different cultures and periods historical.
- Geometric properties of mathematical and everyday objects: research scam programs Delaware geometry dynamic.

Location and System of representation.

- Figures and objects objects geometric is he flat: representation and analysis Delaware their properties using the geometry analytical.
- Algebraic expressions of a straight line: selection of the most appropriate one based on the situation to solver. Resolution Delaware issues.

movements and transformations.

- Elementary transformations in everyday life: research with tools technological like programs Delaware geometry dynamic, reality increased, etc.
- display, reasoning and modeling geometric.
- Models geometric: representation and explanation Delaware relations and operations numerical and algebraic in diverse situations. Use of geometric representations to the resolution Delaware issues.
- Modeling Delaware items geometric Delaware the life daily scam tools technological technologies such as dynamic geometry programs, augmented reality, visualization and impression 3D.
- Preparation and verification of conjectures about geometric properties using programs Delaware geometry dynamic you others tools.

D.- Meaning algebraic.

Patterns.

- patterns, guidelines and regularities geometric and numerical: observation, generalization and term general is cases simple.
- Mathematical model.
- Modeling and resolution Delaware issues Delaware the life daily through mathematical representations and algebraic language, making use of different types of functions.
- Strategies for deduction and analysis of reasonable conclusions from a situation of the life daily to leave Delaware United Nations model: assessment Delaware the validity of the model.

Variable.

- Variables: association of symbolic expressions to the context of the problem and different applications.
- Relations between quantities and their exchange rates.

Equality and inequality.

- source the resolution Delaware equations.
- Algebra symbolic: representation of relationships functional is diverse contexts.
- Shapes equivalents Delaware expressions algebraic is the resolution Delaware equations, System of equations my inequalities linear and No simple linear. Strategies Delaware discussion and search Delaware solutions is equations linear and quadratics in situations of the life everyday: trial, approximation, solution formal.
- Equations, systems of equations and inequalities: resolution using the technology. Representation graph.

Relationships and functions.

- Quantitative relations in everyday life situations and classes of functions que the model: polynomials, proportionality reverse, exponential, logarithmic and trigonometric.
- Linear and nonlinear relationships: identification and comparison of different modes of representation, tables, graphs or algebraic expressions, and their properties from they.
- Representation of functions: interpretation of their properties in situations of the life daily and others contexts.

Computational thinking.

- Resolution Delaware issues through the roughing is parts, the automation and he thought algorithmic.
- Strategies is the interpretation, modification and creation Delaware algorithms: recursion andfunctions.
- formulation and analysis Delaware issues Delaware the life daily through programs and otherstools.

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E.- Meaning stochastic.

Organization and analysis of data.

- origins analysis history data, situation current perspectives and Of future.
- Strategies Delaware collection and organization Delaware data Delaware situations Delaware the life daily that involve a variable two-dimensional. Boards contingency.
- Analysis my interpretation Delaware boards and graphics statisticians Delaware a and two variables qualitative, quantitative discreet and quantitative continuous is contexts real.
- Measures Delaware location and dispersion: interpretation and analysis Delaware the variability.
- Display Delaware the changes to Modify the data.
- graphics statisticians Delaware a and two variables: representation through different technologies (calculator, sheet Delaware calculation, Applications, etc.), analysis, interpretation and obtaining Delaware conclusions reasoned.
- Interpretation Delaware the relationship between two variables, valuing graphically scam technological tools the relevance of performing a linear regression. linear fit with tools technological.

Uncertainty.

- experiments compounds: planning, realization and analysis Delaware the uncertainty associated.
- Probability: calculation applying the ruler Delaware Laplace and techniques Delaware account is experiments simple and compounds (through diagrams Delaware tree, boards, etc.) and application to the take Delaware decisions founded.

Inference.

- different stages of the design Delaware studies statistics.
- Strategies and tools for presenting and interpreting relevant data in statistical investigations using appropriate digital tools: use of calculator, sheet Delaware calculation and others tools.
- Analysis of the scope Delaware the conclusions Delaware United Nations study statistical valuing the representativeness Delaware the sample to through Delaware examples real.

F.- Socio-affective sense.

1.- Beliefs, attitudes and emotions. Management emotional: emotions que intervene is he learning Delaware the math.

- Self-awareness and self-regulation.
- Strategies Delaware promotion Delaware the curiosity, the initiative, the perseverance and the resilience is he learning Delaware the math.

- Strategies Delaware promotion Delaware the flexibility cognitive: opening to changes Delaware strategy and transformation of the mistake is chance Delaware learning.

2.- Work as a team and decision making.

- techniques cooperatives paraca optimize he job is equipment and share and build knowledge mathematical.
- behaviors empathic and Strategies Delaware management of conflicts.

3.- Inclusion, respect and diversity.

- Attitudes inclusive and acceptance Delaware the diversity present is he classroom Delaware math and is the society.
- The contribution Delaware the math Alabama development Delaware the different areas of the knowledge humans from a perspective Delaware gender.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3
UD1, UD2	UD 5, UD 6	UD 9, UD 10
UD3, UD4	UD 7, UD 8	UD 11, UD 12

4.2 EVALUATION CRITERIA

Specific competence 1.

1.1.-Reformulate mathematical problems verbally and graphically, interpreting the data, the relationships between them and the questions posed.

1.2.-Analyze and select different tools and strategies developed to solve the same problem, assessing their efficiency.

1.3.-Obtain all possible mathematical solutions to a problem by mobilizing knowledge and using the necessary technological tools.

Specific competence 2.

2.1.- Check the mathematical correctness of the solutions to a problem.

2.2.- Justify the optimal solutions to a problem from different perspectives (mathematical, gender, sustainability, responsible consumption, etc.).

Specific competence 3.

3.1.- Formulate, verify and investigate conjectures in a guided manner.

3.2.- Pose variants of a problem that will lead to a generalization.

3.3.- Use appropriate technological tools in the investigation and verification of conjectures or problems.

Specific competence 4.

4.1.- Generalize patterns and provide a computational representation of problematic situations.

4.2.- Model situations and solve problems effectively by interpreting, modifying, generalizing and creating algorithms.

Specific competence 5.

5.1.- Deduce relationships between mathematical knowledge and experiences, forming a coherent whole.

5.2.- Analyze and put into practice connections between different mathematical processes by applying previous knowledge and experiences.

Specific competence 6.

6.1.- Propose situations that can be formulated and resolved using mathematical tools and strategies, establishing and applying connections between the real world and mathematics, and using the processes of scientific and mathematical research: inferring, measuring, communicating, classifying and predicting . .

6.2.- Analyze and apply coherent connections between mathematics and other subjects by performing a critical analysis.

6.3.- Assess the contribution of mathematics to the progress of humanity and its contribution to overcoming the challenges demanded by today's society.

Specific competence 7.

7.1.- Mathematically represent the most relevant information of a problem, concepts, procedures and mathematical results, visualizing ideas and structuring mathematical processes. Select between different tools, including digital ones, and forms of representation (pictorial, graphic, verbal or symbolic), assessing their usefulness for sharing information.

Specific competence 8.

8.1.- Communicate ideas, conclusions, conjectures and mathematical reasoning, using different media, including digital media, with coherence, clarity and appropriate terminology.

8.2.- Recognize and use the mathematical language present in everyday life and in various contexts, communicating messages with mathematical content with precision and rigor.

Specific competence 9.

9.1.- Identify and manage one's emotions and develop mathematical self-concept, generating positive expectations in the face of new mathematical challenges.

9.2.- Show a positive and persevering attitude when facing different mathematics learning situations, accepting reasoned criticism.

Specific competence 10.

10.1.- Actively collaborate and build relationships by working with mathematics in heterogeneous teams, respecting different opinions, communicating effectively, thinking critically and creatively, making decisions and making informed judgments.

10.2.- Manage the distribution of tasks in teamwork, providing value, promoting inclusion, active listening, taking responsibility for the assigned role and one's own contribution to the team.

4.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 70%
- Notebook tests: 10%
- Class notebook: 10% (evaluated according to the rubric)
- Homework and classwork: 5%
- Reading comprehension work test: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 70% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

4.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and final opportunity to recover the subject by taking a second recovery exam.

corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

5 MATHEMATICS I – 1ST BACH

5.1 BASIC KNOWLEDGE AND TIMING

A.-Number sense.

Direction of operations

Addition and scalar product of vectors in the plane: properties and representations.

Strategies for operating with real numbers and vectors: mental or written calculation in simple cases and with technological tools in more complicated cases.

Solving problems involving addition, subtraction, and scalar multiplication of vectors, including problems arising from real-world applications.

Relations.

Complex numbers as solutions of polynomial equations that lack real roots. Compression of the expansion of numerical sets.

Vector set: structure, understanding and properties.

B.- Sense of measurement.

Measurement.

Calculation of lengths and angular measurements: use of trigonometry. Solving problems in different mathematical and real-world contexts.

Probability as a measure of the uncertainty associated with random phenomena.

Change.

Origin of infinitesimal calculus. Classic problems.

Limits: estimation and calculation from a table, graph, or algebraic expression. Use of technological tools.

Continuity of functions: application of limits in the study of continuity.

Application in contextualized problems.

Derivative of a function: definition based on the study of change, interpretation as slope and as a rate of change in different contexts.

Function derived from polynomial, trigonometric, exponential, rational and radical functions and simple combinations of functions: solving related problems.

Connections between numerical, graphical and algebraic representations of a function and its derivative.

C.- Spatial sense.

Geometric figures of two and three dimensions.

Two-dimensional geometric objects: vectors. Analysis of properties and determination of their attributes.

Resolution of problems related to geometric objects in the plane represented with Cartesian coordinates.

Location and representation systems.

Origins of Cartesian geometry. Some classic problems of analytical geometry.

Relationships of geometric objects in the plane: representation and exploration with the help of digital tools. Algebraic expressions of geometric objects on the plane: selection of the most appropriate one based on the situation to be resolved.

Visualization, reasoning and geometric modeling.

Representation of geometric objects on the plane using digital tools.

Mathematical models (geometric, algebraic, graphics, etc.) in solving plane problems. Connections with other disciplines and areas of interest.

Geometric conjectures in the plane: validation through deduction and theorem proving.

Modeling the position and movement of an object in the plane using vectors.

D.- Algebraic sense.

Patterns.

Generalization of patterns in simple situations: specific and recurring functions.

Mathematical model.

Quantitative relationships in simple situations: strategies for identification and determination of the class or classes of functions (polynomial, exponential, rational, etc.) that can model them.

Equations, inequalities and systems: modeling of situations in various contexts.

Equality and inequality.

Origin of the resolution of the third degree equation.

Resolution of equations, inequalities and systems of nonlinear equations and inequalities in different contexts.

Relationships and functions.

Analysis, graphic representation and interpretation of relationships (polynomial, exponential, rational, etc.) using technological tools.

Properties of different classes of functions, including polynomials, exponentials, radicals, simple rationals, logarithmics, trigonometrics, and pieces: understanding and comparison.

Symbolic algebra in the representation and explanation of mathematical relationships in science and technology.

Computational thinking.

Formulation, resolution and analysis of problems in everyday life and science and technology using appropriate tools or programs.

Comparison of alternative algorithms for the same problem using logical reasoning.

E.- Stochastic sense.

Uncertainty.

Probability: from the study of games of chance to its axiomatization.

Estimation of probability from the concept of relative frequency.

Calculation of probabilities in simple experiments: Laplace's rule in situations of equiprobability and in combination with different counting techniques.

Inference.

Analysis of one-dimensional and two-dimensional samples with technological tools in order to make judgments and make decisions.

F.- Socio-affective sense.

Beliefs, attitudes and emotions. Self-awareness skills aimed at recognizing one's own emotions, facing possible situations of stress and anxiety when learning mathematics.

Treatment of individual and collective error as a mobilizing element of previously acquired knowledge and generator of learning opportunities in the mathematics classroom.

Teamwork and decision making.

Recognition and acceptance of diverse approaches in solving mathematical problems and tasks, transforming the approaches of others into new and improved own strategies, showing empathy and respect in the process.

Teamwork techniques and strategies for solving mathematical problems and tasks, in heterogeneous teams.

Inclusion, respect and diversity.

Skills to develop effective communication: active listening, asking questions or requesting and providing help when necessary.

Assessment of the contribution of mathematics and the role of mathematics and mathematics throughout history in the advancement of science and technology.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3

UD1, UD2	UD 4, UD 5	UD 7, UD 8
UD3	UD 6	UD 9

5.2 EVALUATION CRITERIA

Specific competence 1.

1.1 Handle some strategies and tools, including digital ones, in modeling and solving problems in everyday life and science and technology, evaluating their efficiency in each case.

1.2 Obtain all possible mathematical solutions to problems in everyday life and science and technology, describing the procedure used.

Specific competence 2.

2.1 Check the mathematical validity of the possible solutions to a problem, using reasoning and argumentation.

2.2 Select the most appropriate solution to a problem based on the context (sustainability, responsible consumption, equity..., etc.), using reasoning and argumentation.

Specific competence 3.

3.1 Acquire new mathematical knowledge from the formulation of conjectures and guided problems.

3.2 Use appropriate technological tools in the formulation or investigation of conjectures or problems.

Specific competence 4.

4.1 Interpret, model and solve problematic situations in everyday life and science and technology, using computational thinking, modifying and creating algorithms.

Specific competence 5.

5.1 Manifest an integrated mathematical vision, investigating and connecting different mathematical ideas.

5.2 Solve problems in mathematical contexts, establishing and applying connections between different mathematical ideas.

Specific competence 6.

6.1 Solve problems in diverse situations, using mathematical processes, establishing and applying connections between the real world, other areas of knowledge and mathematics.

6.2 Analyze the contribution of mathematics to the progress of humanity, reflecting on its contribution in proposing solutions to complex situations and to the scientific and technological challenges that arise in society.

Specific competence 7.

7.1 Represent mathematical ideas, structuring different mathematical reasoning and selecting the most appropriate technologies.

7.2 Select and use various forms of representation, assessing their usefulness for sharing information.

Specific competence 8.

8.1 Show organization in communicating mathematical ideas using appropriate support, terminology, and rigor.

8.2 Recognize and use mathematical language in different contexts, communicating information with precision and rigor.

Specific competence 9.

9.1 Face situations of uncertainty by identifying and managing emotions and accepting and learning from errors as part of the mathematics learning process.

9.2 Show a positive and persevering attitude, accepting and learning from reasoned criticism when facing different mathematics learning situations.

9.3 Actively participate in mathematical tasks in heterogeneous teams, respecting the emotions and experiences of others, listening to their reasoning, identifying the most conducive social skills and promoting group well-being and healthy relationships.

5.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 75%

- Tests with notebook: 10%
- Homework and class work (including taking notes): 10%
- Reading comprehension test or assignment: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 70% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

5.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and final opportunity to recover the subject by taking a second recovery exam.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

In the case of students who do not take the exam on the designated day, the test will not be repeated if other evaluation instruments are available that allow the student to be graded.

The possibility of taking the test together with the student who has to make it up may also be considered, and if the student absent in the first test does not pass it, giving him the opportunity to take a second one.

6 MATHEMATICS II – 2ND BACCALAUREATE

6.1 BASIC KNOWLEDGE AND TIMING

A.- Numerical sense.

Sense of operations.

Addition and scalar, vector and mixed product of vectors in space: interpretation, understanding and proper use of properties.

Strategies for operating with real numbers, vectors and matrices: mental or written calculation in simple cases and with technological tools in more complicated cases.

Relations.

Sets of vectors in space and matrices: structure, understanding and properties.

B.- Sense of measurement.

Measurement.

Solving problems that involve measurements of length, surface or volume in a Cartesian coordinate system.

Interpretation of the definite integral as the area under a curve.

Calculation of areas under a curve: calculation of primitives. Numerical methods.

Techniques for the application of the concept of integral to the resolution of problems that involve calculation of plane surfaces or volumes of revolution.

Probability as a measure of uncertainty associated with random phenomena: subjective, classic and frequent interpretation.

Change. Continuity of functions: properties.

Derived function: interpretation and application to the calculation of limits

Application of the concepts of limit, continuity and derivability to the representation and study of situations that can be modeled using functions.

The derivative as a rate of change in the resolution of optimization problems in diverse contexts.

C.- Spatial sense.

Geometric figures of two and three dimensions.

Three-dimensional geometric objects: analysis of properties and determination of their attributes.

Resolution of problems related to geometric objects in space represented with Cartesian coordinates.

Location and representation systems.

Relationships of geometric objects in space: representation and exploration with the help of digital tools.

Algebraic expressions of geometric objects in space: selection of the most appropriate one based on the situation to be resolved.

Visualization, reasoning and geometric modeling.

Representation of geometric objects in space using digital tools.

Mathematical models (geometric, algebraic, etc.) to solve problems in space. Connections with other disciplines and areas of interest.

Geometric conjectures in space: validation through deduction and theorem proving.

Modeling the position and movement of an object in space using vectors.

D.- Algebraic sense.

Patterns.

Generalization of patterns using functions and recursion in diverse situations.

Mathematical model.

Quantitative relationships in complex situations: strategies for identification and determination of the class or classes of functions (polynomial, exponential, rational, etc.) that can model them.

Systems of equations: modeling of situations in various contexts.

Techniques and use of matrices to, at least, model situations in which systems of linear equations or graphs appear.

Equality and inequality.

Equivalent forms of algebraic expressions in solving systems of equations and inequalities, through mental calculation, pencil and paper algorithms, and with digital tools.

Resolution of systems of equations in different contexts. Use of different resolution methods.

Relationships and functions.

Representation, analysis and interpretation of functions (polynomial, exponential and logarithmic, rational, trigonometric, etc.) with digital tools.

Properties of the different classes of functions (polynomial, exponential and logarithmic, rational, trigonometric, etc.): understanding and comparison.

Computational thinking. Formulation, resolution and analysis of problems in everyday life and science and technology using the most appropriate tools or programs.

Algorithmic analysis of the properties of operations with matrices, determinants and the resolution of systems of linear equations.

E.- Stochastic sense.

Uncertainty.

Calculation of probabilities in compound experiments. Conditional probability and independence of random events. Tree diagrams and contingency tables.

Bayes and Total Probability Theorems: Problem solving and interpretation of Bayes theorem to update probability from observation and experiment. Decision making under conditions of uncertainty.

Inference.

Discrete and continuous random variables. Distribution parameters.

Modeling of stochastic phenomena using binomial and normal probability distributions. Calculation of associated complications using technological tools.

F.- Socio-affective sense.

Beliefs, attitudes and emotions.

Self-management skills aimed at recognizing one's own emotions, facing possible situations of stress and anxiety when learning mathematics.

and Error analysis treatment, individual and collective, as an element that mobilizes previously acquired knowledge and generates learning opportunities in the mathematics classroom.

Teamwork and decision making.

Skills to evaluate different options and make decisions when solving mathematical problems and tasks.

Inclusion, respect and diversity.

Effective social and communication skills for success in learning mathematics.

Assessment of the contribution of mathematics and the role of mathematicians throughout history in the advancement of science and technology.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3
UD1, UD2,	UD 5, UD 6	UD 9, UD 10
UD3, UD4	UD 7, UD 8	UD 11

6.2 EVALUATION CRITERIA

Competence specify 1.

1.1 Handle different strategies and tools, including digital ones, that model and solve problems of daily life and science and technology, selecting the most appropriate ones according to their efficiency.

1.2 Obtain all possible mathematical solutions to problems in everyday life and science and technology, describing the procedure used.

Specific competence 2.

2.1 Demonstrate the mathematical validity of the possible solutions to a problem, using reasoning and argumentation.

2.2 Select the most appropriate solution to a problem based on the context (sustainability, responsible consumption, equity, etc.), using reasoning and argumentation.

Specific competence 3.

3.1 Acquire new mathematical knowledge through the formulation, reasoning and justification of conjectures and problems autonomously.

3.2 Integrate the use of technological tools in the formulation or investigation of conjectures and problems.

Specific competence 4.

4.1 Interpret, model and solve problematic situations in everyday life and science and technology, using computational thinking, modifying, creating and generalizing algorithms.

Specific competence 5.

5.1 Demonstrate an integrated mathematical vision, investigating and connecting different mathematical ideas.

5.2 Solve problems in mathematical contexts by establishing and applying connections between different mathematical ideas.

6.1 Specific competence 6. Solve problems in diverse situations, using mathematical processes, reflecting, establishing and applying connections between the real world, other areas of knowledge and mathematics.

6.2 Analyze the contribution of mathematics to the progress of humanity, assessing its contribution in proposing solutions to complex situations and to the scientific and technological challenges that arise in society.

Specific competence 7.

7.1 Represent mathematical ideas, structuring different mathematical reasoning and selecting the most appropriate technologies.

7.2 Select and use various forms of representation, assessing their usefulness for sharing information.

Specific competence 8.

8.1 Show organization when communicating mathematical ideas, using appropriate support, terminology, and rigor.

8.2 Recognize and use mathematical language in different contexts, communicating information with precision and rigor.

Specific competence 9.

9.1 Face situations of uncertainty and make decisions by evaluating different options, identifying and managing emotions, and accepting and learning from errors as part of the mathematics learning process.

9.2 Show a positive and persevering attitude, accepting and learning from reasoned criticism when facing different mathematics learning situations.

9.3 Work actively on mathematical tasks in heterogeneous teams, respecting the emotions and experiences of others, listening to their reasoning, applying the most conducive social skills and promoting team well-being and healthy relationships.

6.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 75%

- Tests with notebook: 20%

- Deliverable exercises: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 70% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

6.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and last opportunity to recover the subject by taking a second global recovery exam with the contents taught throughout the course.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

In the case of students who do not take the exam on the designated day, the test will not be repeated if other evaluation instruments are available that allow the student to be graded.

The possibility of taking the test together with the student who has to make it up may also be considered, and if the student absent in the first test does not pass it, giving him the opportunity to take a second one.

7 MATHEMATICS CCSS I - 1ST BACH

7.1 BASIC KNOWLEDGE AND TIMING

A.- Numerical sense.

Count.

Systematic counting strategies and techniques (tree diagrams, combinatorial techniques and contingency tables)

Amount.

Real numbers (rational and irrational): comparison, ordering, classification and contrast of their properties.

Sense of operations.

Powers, roots and logarithms: understanding and using their relationships to simplify and solve problems.

Relations.

Financial education.

Resolution of problems related to financial education (fees, rates, interests, loans, etc.) with technological tools. Index of numbers. Variation in purchasing power.

B.- Sense of measurement.

Measurement.

Probability as a measure of the uncertainty associated with random phenomena.

Analysis of accuracy, precision and error in situations that involve measurement.

Change.

Origin of infinitesimal calculus. Classic problems.

Limits: estimation and calculation from a table, graph, or algebraic expression.

Continuity of functions: application of limits in the study of continuity.

Application in contextualized problems.

Derived from a function: definition based on the study of change in social science contexts.

C.- Algebraic sense.

Patterns.

Generalization of patterns in simple situations: specific and recurring functions.

Mathematical model.

Essential quantitative relationships in simple situations: strategies for identification and determination of the class or classes of functions (polynomial, exponential, rational, etc.) that can model them.

Equations, inequalities and systems: modeling situations from the social sciences and real life.

Equality and inequality.

Historical evolution of algebraic language.

Resolution of equations, inequalities and systems of nonlinear equations and inequalities in different contexts.

Relationships and functions.

Graphical representation of functions using the most appropriate expression. Use of digital tools.

Properties of classes of functions, including linear, quadratic, simple rational, radical, exponential and logarithmic, and pieces. Use of digital tools.

Symbolic algebra in the representation and explanation of mathematical relationships in the social sciences. Computational thinking.

Formulation, resolution and analysis of problems in everyday life and social sciences using appropriate programs and tools.

Comparison of alternative algorithms for the same problem using logical reasoning.

D.- Stochastic sense.

Organization and analysis of data.

Statistics: from data recording to modern statistics.

Organization of data from two-dimensional variables: joint distribution and marginal and conditional distributions. Analysis of statistical dependence. Interpretation of economic and social phenomena in which two variables intervene.

Study of the relationship between two variables using linear and quadratic regression: graphic assessment of the relevance of the adjustment. Difference between evaluation and causality. Use of technological tools.

Linear evaluation and determination coefficients: quantification of the linear relationship, prediction and assessment of its reliability in social science contexts.

Calculator, spreadsheet or specific software in the analysis of statistical data.

Uncertainty.

Probability: from the study of games of chance to its axiomatization.

Estimation of probability from the concept of relative frequency.

Calculation of probabilities in simple experiments: Laplace's rule in situations of equiprobability and in combination with different counting techniques.

Probability distributions.

Discrete and continuous random variables. Distribution parameters.

Modeling of stochastic phenomena using binomial and normal probability distributions. Calculation of associated complications using technological tools.

Estimation of probabilities by approximating the binomial by the normal.

Inference.

Design of statistical studies related to social sciences using digital tools. Simple sampling techniques. Use of technological tools for application in problems of daily life or social sciences.

Analysis of one-dimensional and two-dimensional samples with technological tools in order to make judgments and make decisions: point estimation.

E.- Socio-affective sense.

Beliefs, attitudes and emotions.

Self-awareness skills aimed at recognizing one's own emotions, facing possible situations of stress and anxiety when learning mathematics.

Treatment of individual and collective error as a mobilizing element of previously acquired knowledge and generator of learning opportunities in the mathematics classroom.

Teamwork and decision making.

Recognition and acceptance of diverse approaches in solving mathematical problems and tasks, transforming the approaches of others into new and improved own strategies, showing empathy and respect in the process.

Teamwork techniques and strategies for solving mathematical problems and tasks, in heterogeneous groups.

Inclusion, respect and diversity.

Skills to develop effective communication: active listening, asking questions or requesting and providing help when necessary. Assessment of the contribution of mathematics and the role of mathematicians throughout history in the advancement of social sciences.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3
UD1, UD2	UD 4, UD 5	UD 7
UD3	UD 6	UD 8

7.2 EVALUATION CRITERIA

Specific competence 1.

1.1 Use some strategies and tools, including digital ones, in solving problems in everyday life and social sciences, assessing their efficiency in each case.

1.2 Obtain all possible mathematical solutions to problems in everyday life and social sciences, describing the procedure carried out.

2.1 Specific competence 2. Check the mathematical validity of the possible solutions to a problem, using reasoning and argumentation.

2.2 Select the most appropriate solution to a problem based on the context (sustainability, responsible consumption, equity..., etc.), using reasoning and argumentation.

Specific competence 3.

3.1 Acquire new mathematical knowledge by formulating conjectures and guided problems.

3.2 Use appropriate technological tools in the formulation or investigation of conjectures or problems.

Specific competence 4.

4.1 Interpret, model and solve problematic situations from everyday life and social sciences, using computational thinking, modifying and creating algorithms.

Specific competence 5.

5.1 Manifest an integrated mathematical vision, investigating and connecting different mathematical ideas.

5.2 Solve problems, establishing and applying connections between different mathematical ideas.

Specific competence 6.

6.1 Solve problems in diverse situations, using mathematical processes, establishing and applying connections between the real world, other areas of knowledge and mathematics.

6.2 Analyze the contribution of mathematics to the progress of humanity, reflecting on its contribution in proposing solutions to complex situations and the challenges that arise in the social sciences.

Specific competence 7.

7.1 Represent mathematical ideas, structuring different mathematical reasoning and selecting the most appropriate technologies.

7.2 Select and use various forms of representation, assessing their usefulness for sharing information.

Specific competence 8.

8.1 Show organization when communicating mathematical ideas, using appropriate support, terminology, and rigor.

8.2 Recognize and use mathematical language in different contexts, communicating information with precision and rigor.

Specific competence 9.

9.1 Face situations of uncertainty, identifying and managing emotions and accepting and learning from errors as part of the mathematics learning process.

9.2 Show a positive and persevering attitude, accepting and learning from reasoned criticism when facing different mathematics learning situations.

9.3 Actively participate in mathematical tasks in heterogeneous teams, respecting the emotions and experiences of others, listening to their reasoning, identifying the most conducive social skills and promoting group well-being and healthy relationships.

7.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments used will be objective tests (exams and tests), the class notebook, homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 75%
- Notebook tests: 10%
- Homework and classwork (including taking notes): 10%
- Reading comprehension work test: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 70% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

7.4 RECOVERY MEASURES AND ACTIVITIES

In relation to the recovery plans for failed evaluations in the current course, the student will have two opportunities to recover. At the beginning of the evaluation following the failed evaluation, failed students in all courses will have the opportunity to recover the failed subject through a recovery exam that will address the contents of that evaluation. The grade for said test will replace, if passed, the grade for the global evaluation exam. In any case, if the grade of said test is equal to or greater than 5, the evaluation will be considered recovered.

Furthermore, at the end of the course, they will have a second and final opportunity to recover the subject by taking a second recovery exam.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade is below 5, this will be rounded to 5 to favor the student.

In the case of students who do not take the exam on the designated day, the test will not be repeated if other evaluation instruments are available that allow the student to be graded.

The possibility of taking the test together with the student who has to make it up may also be considered, and if the student absent in the first test does not pass it, giving him the opportunity to take a second one.

8 MATHEMATICS CC SS II

8.1 BASIC KNOWLEDGE AND TIMING

A.- Numerical sense.

Sense of operations.

Addition and product of matrices: interpretation, understanding and proper application of properties.

Strategies for operating with real numbers and matrices: mental or written calculation in simple cases and with technological tools in more complicated cases. Gauss method.

Relations.

The set of matrices: structure, understanding and properties. Use of matrices in the representation and resolution of situations in everyday life and social sciences.

B.- Sense of measurement.

Measurement.

Interpretation of the definite integral as the area under a curve.

Elementary techniques for calculating primitives. Application to the calculation of areas.

Barrow's rule.

Probability as a measure of uncertainty associated with random phenomena: subjective, classical and frequentist interpretations.

Change.

The derivative as a rate of change in solving optimization problems in diverse contexts.

Application of the concepts of continuity, limit and derivative to the representation and study of situations that can be modeled using functions.

C.- Algebraic sense.

Patterns.

Generalization of patterns in simple situations: specific and recurring functions.

Mathematical model.

Quantitative relationships in complex situations: strategies for identification and determination of the class or classes of functions (polynomial, exponential, rational, etc.) that can model them.

Systems of equations: modeling of situations in various contexts.

Techniques and use of matrices to, at least, model situations in which systems of linear equations or graphs appear.

Linear programming: modeling of real problems and resolution using digital tools.

Equality and inequality. Equivalent forms of algebraic expressions in solving systems of equations and inequalities, through mental calculation, pencil and paper algorithms, and with digital tools.

Resolution of systems of equations and inequalities in different contexts.

Relationships and functions.

Representation, analysis and interpretation of functions with digital tools.

Properties of the different classes of functions (polynomial, exponential, logarithmic, radical, rational, etc.): understanding and comparison. Application in social science problems.

Computational thinking.

Formulation, resolution and analysis of problems in everyday life and social sciences using the most appropriate tools or programs.

Algorithmic analysis of the properties of operations with matrices and the resolution of systems of linear equations.

D.- Stochastic sense.

Uncertainty.

Calculation of probabilities in compound experiments. Conditional probability and independence of random events. Tree diagrams and contingency tables.

Total probability and Bayes theorems: problem solving and interpretation of Bayes theorem to update probability from observation and experimentation and decision making under conditions of uncertainty.

Probability distributions.

Discrete and continuous random variables . Distribution parameters.

Binomial and normal distributions.

Modeling of stochastic phenomena using binomial and normal probability distributions. Calculation of associated complications using technological tools.

Inference.

Selection of representative samples. Sampling techniques. Use of digital tools for application to social science problems and everyday life.

Estimation of means, proportion and standard deviation. Approximation of the distribution of the means and the sample proportion by the normal one.

Confidence intervals based on the normal distribution: construction, analysis and decision making in contextualized situations.

E.- Socio-affective sense.

Beliefs, attitudes and emotions.

Self-management skills aimed at recognizing one's own emotions, facing possible situations of stress and anxiety when learning mathematics.

and Error analysis treatment, individual and collective, as an element that mobilizes previously acquired knowledge and generates learning opportunities in the mathematics classroom.

Teamwork and decision making.

Skills to evaluate different options and make decisions when solving problems in different contexts.

Inclusion, respect and diversity.

Effective social and communication skills for success in learning mathematics. Assessment of the contribution of mathematics and the role of mathematics and mathematics throughout the history of the advancement of social sciences.

SEQUENCED TIMING BY QUARTER AND HALF TERM

QUARTER 1	QUARTER 2	QUARTER 3
UD1, UD2, UD3	UD 6, UD 7	UD 10, UD 11
UD4, UD5	UD 8, UD 9	UD 12, UD 13

8.2 EVALUATION CRITERIA

Specific competence 1.

1.1 Use different strategies and tools, including digital ones that solve problems in everyday life and social sciences, selecting the most appropriate one according to its efficiency.

1.2 Obtain all possible mathematical solutions to problems in everyday life and social sciences, describing the procedure carried out.

Specific competence 2.

2.1 Demonstrate the mathematical validity of the possible solutions to a problem, using reasoning and argumentation.

2.2 Select the most appropriate solution to a problem based on the context (sustainability, responsible consumption, equity, etc.), using reasoning and argumentation.

Specific competence 3.

3.1 Acquire new mathematical knowledge through the formulation, reasoning and justification of conjectures and problems autonomously.

3.2 Integrate the use of technological tools in the formulation or investigation of conjectures and problems.

Specific competence 4.

4.1 Interpret, model and solve problematic situations from everyday life and social sciences, using computational thinking, modifying, creating and generalizing algorithms.

Specific competence 5.

5.1 Manifest an integrated mathematical vision, investigating and connecting different mathematical ideas.

Specific competence 6.

6.1 Solve problems in diverse situations, using mathematical processes, reflecting, establishing and applying connections between the real world, other areas of knowledge and mathematics.

6.2 Analyze the contribution of mathematics to the progress of humanity, valuing its contribution in proposing solutions to complex situations and to the challenges that arise in the social sciences.

Specific competence 7.

7.1 Represent and visualize mathematical ideas, structuring different mathematical processes and selecting the most appropriate technologies.

7.2 Select and use various forms of representation, assessing their usefulness for sharing information.

Specific competence 8.

8.1 Show organization when communicating mathematical ideas, using appropriate support, terminology, and rigor.

8.2 Recognize and use mathematical language in different contexts, communicating information with precision and rigor.

9.1 Specific competence 9. Face situations of uncertainty and make decisions by evaluating different options, identifying and managing emotions and accepting and learning from errors as part of the mathematics learning process.

9.2 Show perseverance and positive motivation, accepting and learning from reasoned criticism when facing different mathematics learning situations.

9.3 Work actively on mathematical tasks in heterogeneous teams, respecting the emotions and experiences of others, listening to their reasoning, applying the most conducive social skills and promoting team well-being and healthy relationships.

8.3 PROCEDURES AND ASSESSMENT TOOLS

The evaluation instruments will be used: objective tests (exams and tests), homework and class work, and reading comprehension.

The grade in each quarter will be the weighted average obtained by giving the following weight to each of the instruments:

- Exams taken: 75%
- Notebook tests: 20%
- Deliverable exercises: 5%

The global exam taken at the end of the quarter will have a higher specific weight than the partial exams within the 75% awarded. The final grade will be the arithmetic average of the three evaluations as long as the intermediate evaluations are approved. However, the arithmetic average may also be taken if in any of the three evaluations the grade is above 4 and the rest passed above 5.

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Furthermore, at the end of the course, they will have a second and last opportunity to recover the subject by taking a second global recovery exam with the contents taught throughout the course.

The evaluation is considered recovered if the student passes the recovery exam and to obtain the evaluation grade, the grade corresponding to the exam instrument will be replaced by this grade and subsequently the grades from the rest of the instruments will be added. In the unusual case that following this procedure the grade falls below 5, it will be rounded to 5 to favor the student/- a. In the case of students who do not take the exam on the designated day, the test will not be repeated if other evaluation instruments are available that allow the student to be graded.

The possibility of taking the test together with the student who has to recover it may also be considered, and if the student absent in the first test does not pass it, giving him the opportunity to take a second one.

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