

R4.1. R4.1. STEAM DataScEd4CiEn scenario template.

Accepting foreigners in a globalized world where distance is "relative"

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Introduction

Title

Accepting foreigners in a globalised world where distance is 'relative'

Authors

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Summary of the learning situation

The aim of the learning situation is for students aged between 13 and 14 to reflect on the importance of guaranteeing human rights to all immigrants arriving in Spain in a globalised world. To this end, a historical perspective is taken which, initially, involves students in Geography and History researching the Conquest of America: what were the reasons for the conquest, who participated, what difficulties they faced, how the defence of the indigenous peoples began. Secondly, in Spanish Language and Literature, two texts significant for the defence of the human rights of the indigenous peoples in the lands conquered by the Spanish Crown are discussed: *A Short Account of the Destruction of the Indies* by Fray Bartolomé de las Casas and the Will and Codicil of Isabel I of Castile.

Thirdly, this document is revisited in mathematics class to analyse the distance travelled by immigrants to seek refuge in Spain, based on data science research. Given the difficulty of studying the distance between the Indies and Christopher Columbus and the first conquistadors, this subject starts with the study and calculation of the straight-line distance on a plane, assesses the differences with distances on the terrestrial sphere, and draws an analogy with the distances currently travelled by refugees arriving in Spain. At the same time, work will be done in the area of technology and digitalisation to automate the processes of calculating distances on a map and developing computational thinking. Fourthly, in the subject of Civic and Ethical Values Education, students reflect on the rights of immigrants as constitutional rights and assess how we should act and interact in accordance with the civic, ethical and moral norms that human rights entail.

Finally, in the subject of English Language, students reflect on the importance of accepting foreigners in a globalised world where the distance is relative.

Age of students

13 a 14 years old

'Data science content in STEAM for civic engagement and social justice from an early age'

Subjects and topics

Geography and history (GeH)

In this subject, students are encouraged to develop specific skills: researching, arguing and producing their own work on geographical, historical and social issues that are relevant today, both locally and globally, in order to develop critical thinking that respects differences, contributes to the construction of their own identity and enriches the common heritage. All of this is based on the study of: the great trade routes and strategies for controlling resources in the conquest and colonisation of America, voyages, discoveries and exchange systems in the formation of a global economy, people who have been rendered invisible in history, and civic commitment to human dignity and universal rights.

Spanish Language and Literature (LCL)

The aim of studying the documents of Fray Bartolomé de las Casas and Isabel La Católica is to understand, interpret and evaluate written texts, with meaning and different reading purposes, recognising the overall meaning and the main and secondary ideas, identifying the intention of the sender, reflecting on the content and form, and evaluating their quality and reliability, in order to respond to communicative needs and interests and build knowledge.

The commentary on the two texts should encourage students to delve deeper into the context and discursive genres, develop their reading comprehension and detect possible discriminatory uses of verbal language.

Mathematics (MAT)

Students should use the principles of computational thinking by organising data, breaking it down into parts, recognising patterns, interpreting, modifying and creating algorithms to model distance on a plane and in a sphere, and answer the question of how far immigrants travel to seek refuge in Spain.

In the process of solving this problem, students will construct the following knowledge:

recognition, investigation and relationship between the magnitude of distance on a plane and a sphere, representation of geometric objects with fixed properties, flat and three-dimensional geometric figures, the Pythagorean relationship in geometric relationships, the construction of geometric figures with digital tools, location and description using geometric and geographic coordinates, geometric modelling, analysis, representation and interpretation of statistical tables and graphs using different technologies, interpretation of location and dispersion measures, relevant data to answer questions raised in statistical research, strategies for deducing

conclusions from a sample in order to make judgements and take appropriate decisions.

Education in Civic and Ethical Values (EVCyE)

Students will be assessed on their ability to act and interact in accordance with civic and ethical norms and values, based on a sound understanding of their importance in regulating community life and their effective and justified application in different contexts, in order to promote peaceful, respectful and democratic coexistence committed to the common good. This competence will be developed through practical reflection on what has been learned about the rights of indigenous peoples and refugees and the connection with the following theoretical aspects: the nature and origin of society, social structures and membership groups; the different generations of human rights, their historical constitution and ethical relevance; economic inequality and the fight against poverty, economic globalisation, the right to work, health, education and justice.

Foreign language: English (LEI)

In the foreign language subject, students must produce an original, multimodal text of medium length, which is simple and clearly organised, searching for reliable sources in the work done in other subjects and planning to express their understanding of the acceptance of foreigners in a globalised world where distance is "relative" in a creative, appropriate and coherent way.

Students will apply the following knowledge: Contextual models and basic discursive genres in the comprehension, production and co-production of oral, written and multimodal texts, short and simple, literary and non-literary: characteristics and recognition of context (participants and situation), expectations generated by the context; organisation and structuring according to genre, textual function and structure.

Technology and Digitalisation (TyD)

Students must develop algorithms and computer applications in different environments, applying the principles of computational thinking and incorporating emerging technologies to create solutions to the problem of distance and Pythagoras' theorem, automate processes and apply them in control systems. This involves constructing meanings about algorithms and flowcharts and developing self-confidence and initiative in the face of error, reevaluation and debugging as part of the learning process.

Real-life questions

How has globalisation influenced migratory movements over time and what role does distance play in these processes?

What social and cultural consequences does the arrival of foreigners have for a country, and how has this changed in the digital age?

How are migration and coexistence between cultures reflected in literature?
What linguistic and narrative resources are used to generate empathy for indigenous peoples in literary texts?
What statistical data on migration and foreign populations in different countries or regions help us to better understand diversity?
How far do refugee migrants in Spain travel from their country of origin?
What does 'relative distance' mean from the point of view of empathy and solidarity with people from other countries?
What prejudices exist about foreigners and how can we challenge them from an ethical and human rights perspective?
What opportunities and challenges does digitalisation offer for promoting a more inclusive global citizenship that is respectful of cultural diversity?
How can I reflect on what I have learned about migration, diversity, and inclusion to take action as a responsible global citizen?

Objectives of the scenario

1. Analyse the effects of globalisation on migratory movements throughout history, understanding how the perception of distance has changed in these processes (Geography and History).
2. Identify and explain the social and cultural consequences of the arrival of foreigners in a country, assessing the impact of digitalisation on these changes. (Geography and History/Civic and Ethical Values Education).
3. Interpret literary texts that represent migration and cultural coexistence, assessing their role as a means of expression and reflection on diversity (Spanish Language and Literature).
4. Recognise and analyse the linguistic and narrative resources used in texts to generate empathy towards indigenous peoples or foreigners (Spanish Language and Literature).
5. Compile, interpret and represent statistical data on migration to understand the diversity of the population and its distribution in different contexts (Mathematics).
6. Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge (Mathematics/Geography and History).
7. Reflect on the concept of 'relative distance' from an ethical perspective, understanding how empathy and solidarity reduce cultural and social barriers (Civic and Ethical Values Education).
8. Identify prejudices towards foreigners and develop ethical arguments to promote attitudes of respect, inclusion and democratic coexistence based on the Charter of Human Rights (Civic and Ethical Values Education).
9. Export the opportunities and risks offered by digitalisation to build an inclusive global citizenship that respects cultural diversity (Technology and Digitalisation/Education in Civic and Ethical Values).

10. Critically and creatively self-assess the learning acquired in relation to migration, cultural diversity and inclusion, using the English language as a means of expression, in order to make conscious and committed decisions as global and civic citizens.

Skills and competences

In accordance with Spanish regulations, students must develop the following skills and competences (Royal Decree 217/2022, of 29 March, regulating the organisation and minimum teaching requirements of Compulsory Education).

Competence in linguistic communication

Operational descriptor of skills	Subjects
CCL1. Expresses themselves orally, in writing, through sign language or multimodally in a coherent, correct and appropriate manner in different social contexts, and participates in communicative interactions with a cooperative and respectful attitude, both to exchange information, create knowledge and convey opinions, and to build personal relationships.	LEI, GyH
CCL2. Understands, interprets and critically evaluates oral, written, signed or multimodal texts in personal, social, educational and professional contexts in order to participate actively and knowledgeably in different contexts and to build knowledge.	LCL, GyH
CCL3. Locates, selects and compares information from different sources in an increasingly autonomous manner, evaluating its reliability and relevance in relation to reading objectives and avoiding the risks of manipulation and misinformation, and integrates and transforms it into knowledge to communicate it, adopting a creative, critical and personal point of view while respecting intellectual property.	LCL
CCL5. Uses communication practices to promote democratic coexistence, conflict resolution through dialogue and equal rights for all, avoiding discriminatory practices and abuses of power, in order to encourage not only effective but also ethical use of different communication systems.	LCL, EVCyE

Plurilingual competence

Operational descriptor of skills	Subjects
CP1. Uses at least one language, in addition to the family language or languages, to respond to simple and predictable communication needs, in a manner appropriate to their development and interests, as well as	LEI

to everyday situations and contexts in personal, social and educational settings.	
CP2. Based on their experiences, recognises the diversity of linguistic profiles and experiments with strategies that, with guidance, enable them to make simple transfers between different languages in order to communicate in everyday contexts and expand their individual linguistic repertoire.	TyD LEI LCL

Mathematical competence and competence in science, technology and engineering (STEM)

Operational descriptor of skills	Subject
STEM1. Uses, with guidance, some inductive and deductive methods typical of mathematical reasoning in familiar situations, and selects and employs some strategies to solve problems, reflecting on the solutions obtained.	TyD LEI MAT
STEM2. Use scientific thinking to understand and explain some of the phenomena that occur around you, relying on knowledge as a driver of development, using appropriate tools and instruments, asking questions and conducting simple experiments in a guided manner.	MAT
STEM3. Carries out guided projects, designing, manufacturing and evaluating different prototypes or models, adapting to uncertainty, to generate a creative product as a team with a specific objective, ensuring the participation of the whole group and peacefully resolving any conflicts that may arise.	TyD MAT
STEM4. Interprets and communicates the most relevant elements of certain scientific, mathematical and technological methods and results clearly and	LCL
accurately, using appropriate scientific terminology, in different formats (drawings, diagrams, graphs, symbols, etc.) and making critical, ethical and responsible use of digital culture to share and build new knowledge.	

Digital competence

Operational descriptor of skills	Subject
CD1. Carries out guided searches on the internet and uses simple strategies for the digital processing of information (keywords, selection of relevant information, organisation of data, etc.) with a critical attitude towards the content obtained.	LCL

CD2. Creates, integrates and reworks digital content in different formats (text, tables, images, audio, video, computer programmes, etc.) using different digital tools to express ideas, feelings and knowledge, respecting the intellectual property and copyright of the content reused.	LEI MAT GyH
CD3. Participate in school activities or projects using virtual tools or platforms to build new knowledge, communicate, work cooperatively, and share data and content in restricted and supervised digital environments in a safe manner, with an open and responsible attitude towards their use.	EVCyE MAT

Personal, social and learning to learn competence

Operational descriptor of skills	Subject
CPSAA4. Recognises the value of effort and personal dedication to improving their learning and adopts critical stances in guided reflection processes.	LCL
CPSAA5. Plans short-term goals, uses self-regulated learning strategies and participates in self- and co-evaluation processes, recognising their limitations and knowing how to seek help in the process of knowledge construction.	TyD LEI

Civic competence

Operational descriptor of skills	Subject
CC1. Understands the most relevant historical and social processes relating to their own identity and culture, reflects on the rules of coexistence, and applies them in a constructive, dialogical and inclusive manner in any context.	EVCyE GeH
CC2. Participates in community activities, decision-making and conflict resolution in a dialogue-based and respectful manner, in accordance with democratic procedures, the principles and values of the European Union and the Spanish Constitution, human and children's rights, the value of diversity, and the achievement of gender equality, social cohesion and the Sustainable Development Goals.	EVCyE
CC3. Reflects on and discusses current ethical values and issues, understanding the need to respect different cultures and beliefs, to care for the environment, to reject prejudices and stereotypes, and to oppose any form of discrimination or violence.	EVCyE LCL GeH

CC4. Understand the systemic relationships between human actions and the environment, and begin to adopt sustainable lifestyles to contribute to the conservation of biodiversity from both a local and global perspective.	EVCyE
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Entrepreneurial competence

Operational descriptor of skills	Subjects
CE1. Recognises needs and challenges to be addressed and develops original ideas, using creative skills and being aware of the consequences and effects that ideas may have on the environment, in order to propose valuable solutions that respond to the needs identified.	LEI
CE3. Creates original ideas and solutions, plans tasks, cooperates with others in a team, evaluating the process carried out and the result obtained, to carry out an entrepreneurial initiative, considering the experience as an opportunity to learn.	TyD MAT GeH

Competence in cultural awareness and expression

Operational descriptor of skills	Subject
CCEC1. Recognises and appreciates the fundamental aspects of cultural and artistic heritage, understanding the differences between different cultures and	EVCyE
the need to respect them.	
CCEC3. Expresses ideas, opinions, feelings and emotions creatively and with an open and inclusive attitude, using different artistic and cultural languages, integrating their own body, interacting with the environment and developing their affective abilities.	LEI GeH

Teaching approaches and learning strategies/theories

This learning situation is based on a competency-based and interdisciplinary teaching approach based on inquiry-based learning as a key strategy for knowledge construction, where students start from real and meaningful questions that invite them to explore, analyse, reflect and act on the reality of migration in a globalised world.

It is structured around an active learning framework inspired by Vigotsky's theories of social constructivism and Dewey's experiential learning, allowing students to connect the curriculum content with their life context.

In Geography and History, critical thinking about the conquest and colonisation of America is encouraged. Metacognitive processes in this subject should enable students to analyse and reflect on globalisation, inclusion, human rights and the relativity of distance in today's world. In Spanish Language and Literature, text commentary as a learning strategy encourages empathetic interpretation and analysis of discourse on indigenous rights.

In Mathematics, inquiry translates into the use of computational thinking to solve three problems that guide the learning process.

In Civic and Ethical Values Education, reasoned debate, ethical thinking, the development of critical judgement on human rights and civic commitment to include refugees in the social and cultural life of the country are promoted.

In Technology and Digitalisation, the principles of design-based learning are applied to communicate findings and reflections through multimedia products and algorithms that promote understanding of computational thinking processes.

In Foreign Language (English), self-reflection is developed where students, through selfassessment and creative expression, synthesise what they have learned and formulate commitments to active citizenship.

Relating the national curriculum to the DataScEd4CiEn scenario

In accordance with current regulations, Royal Decree 217/2022 (of 29 March, regulating the organisation and minimum teaching requirements of Compulsory Education, <https://www.boe.es/buscar/act.php?id=BOE-A-2022-4975>), learning has been linked to the main global challenges of the 21st century that students must face. These challenges are set out in two documents: Key Drivers of Curriculum Change in the 21st Century by the

UNESCO International Bureau of Education (Amadio et al. (2014)), and the Sustainable Development Goals of the 2030 Agenda adopted by the United Nations General Assembly in September 2015.

In particular, the learning situation is related to Sustainable Development Goal 4 of the 2030 Agenda, which states: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (United Nations, 2015, pp. 19). Furthermore, section 4.7 states: "By 2030, ensure that all learners acquire the knowledge and practical skills needed to promote sustainable development, including through education for sustainable development and sustainable lifestyles, human rights, gender equality, the promotion of a culture of peace and non-violence, global citizenship and the appreciation of cultural diversity and the contribution of culture to sustainable development" (United Nations, 2015, pp. 20).

- Develop a critical, empathetic and proactive spirit to detect situations of inequality and exclusion based on an understanding of the complex causes that give rise to them.
- Understand conflicts as inherent elements of life in society that must be resolved peacefully.

- Critically analyse and take advantage of the opportunities of all kinds offered by today's society, particularly those of culture in the digital age, evaluating their benefits and risks and making ethical and responsible use of them to contribute to improving personal and collective quality of life.
- Accept uncertainty as an opportunity to articulate more creative responses, learning to manage the anxiety that can accompany it.
- Cooperate and coexist in open and changing societies, valuing personal and cultural diversity as a source of wealth and taking an interest in other languages and cultures.
- Feel part of a collective project, both locally and globally, developing empathy and generosity.
- Developing the skills that enable lifelong learning, based on confidence in knowledge as a driver of development and critical assessment of the risks and benefits of the latter.
- Desarrollar las habilidades que le permitan seguir aprendiendo a lo largo de la vida, desde la confianza en el conocimiento como motor del desarrollo y la valoración crítica de los riesgos y beneficios de este último.

Planning Educational Scenarios

Lesson plan

Name of activity	Procedures	Time/App endix
Lesson 1: Project Motivation		
STEAM topic: GH Discovery and	Presentation of the SA and the task to be carried out and the criteria to be assessed.	5 min
conquest of America	Presentation of the content they will be working on. Creation of a cover page with illustrations related to the discovery of America.	10 min 45 min
Expected learning outcomes	1. Analyse the effects of globalisation on migratory movements throughout history, understanding how the perception of distance has changed in these processes.	

Lesson 2: The spice route		
STEAM topic: GH Discovery and conquest of America	Search for information on new ships, instruments and goods that facilitated navigation and the discovery of a new spice route: caravel, nao, galleon, coastal navigation, portolan chart, spices...	40 min
	Analysis of the importance of finding a new route and the reasons that led to it.	10 min
	Sharing of all the work done.	10 min
Expected learning outcomes	1. Analyse the effects of globalisation on migratory movements throughout history, understanding how the perception of distance has changed in these processes.	
Lesson 3: Pre-Columbian Empires		
STEAM topic: GH Discovery and conquest of America	Research on American civilisations prior to the arrival of Europeans.	15 min
	Create a table presenting the results of this research, organised into three rows: politics, society and culture, and three columns: Mayans, Incas and Aztecs.	40 min
	Sharing of conclusions.	5 min
Expected learning outcomes	2. Identify and explain the social and cultural consequences of the arrival of foreigners in a country, assessing the impact of digitalisation on these changes.	

Lesson 4: The Canary Islands: The link to the new continent		
STEAM topic: GH Discovery and	Analysis with guided questions of a map of the Canary Islands to understand the importance of this	25 min
conquest of America	archipelago as the first link in reaching the new continent.	
	Research on the figure of Andamana and on the social and economic situation of indigenous women.	25 min
	Sharing of conclusions.	10 min

Expected learning outcomes	1. Analyse the effects of globalisation on migratory movements throughout history, understanding how the perception of distance has changed in these processes (Geography and History).
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Lesson 5: Columbus's routes		
STEAM topic: GH Discovery and conquest of America	Description, with the aid of a map, of the routes taken by Columbus during his explorations and the difficulties encountered.	35 min
	Explain why the Genoese navigator was convinced he had reached Asia.	15 min
	Sharing of all the work done.	10 min
Expected learning outcomes	6. Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 6: The Treaty of Tordesillas		
STEAM topic: GH Discovery and conquest of America	Compile information on the Treaty of Tordesillas, analysing the political and cultural consequences of this historic milestone.	30 min
	Create a drawing of an advertising poster announcing the Treaty of Tordesillas.	30 min
Expected learning outcomes	6. Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 7: Conquest and colonisation of America		
STEAM topic: GH Discovery and conquest of America	Search for and compile information on the main protagonists of the conquest of America and the events that took place: Hernán Cortés, Francisco	30 min

	Pizarro, Pedro de Alvarado, Moctezuma, Atahualpa, Fray Bartolomé de Las Casas, Antonio de Montesinos and Malinche. Prepare an outline of the social organisation of 16th century Spanish America, including the situation of the Creoles, women, the indigenous population and the enslaved population.	30 min
Expected learning outcomes	2. Identify and explain the social and cultural consequences of the arrival of foreigners in a country, assessing the impact of digitalisation on these changes.	

Lesson 8: Final conclusion and submission		
STEAM topic: GH Discovery and conquest of America	Prepare a final conclusion on what has been learned and reflect on the importance of this historical event.	20 min
	Prepare an index and layout for all the tasks completed.	30 min
	Brainstorming on everything learned.	10 min
Expected learning outcomes	2. Identify and explain the social and cultural consequences of the arrival of foreigners in a country, assessing the impact of digitalisation on these changes. Identify and explain the social and cultural consequences of the arrival of foreigners in a country, assessing the impact of digitalisation on these changes.	

Lesson 9: The Earth tends to be flat locally. Pythagoras' theorem and its proofs		
STEAM topic: MATHEMATICS	1. Connection with the work done in Geography and History on the "Conquest of America". 2. Analysis of geometric models of the Earth. 3. Reading the biography of Pythagoras. 4. Analysis in Euclid's Elements of the basic definitions of plane geometry. 5. Reading of Proposition XLVII on Pythagoras' Theorem.	Appendix I 1 hour

Expected learning outcomes	Calculate and contextualise the actual and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.
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Lesson 10: Locally, the Earth tends to be flat. Must triangles that satisfy Pythagoras' Theorem be rectangles?		
STEAM topic: MATHEMATICS	1. Apply the Pythagorean Theorem to check whether certain triangles are right-angled or not.	Appendix I 1 hour
Expected learning outcomes	Calculate and contextualise the actual and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 11: The Earth tends to be flat locally. Applications of the Pythagorean Theorem		
STEAM topic: MATHEMATICS	1. Solve problems where the Pythagorean Theorem is applied to calculate inaccessible distances.	Appendix I 1 hour
Expected learning outcomes	Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 12: Locally, the Earth tends to be flat. Would a computer be able to identify whether a triangle is a right-angled triangle and, if so, determine the hypotenuse?		
STEAM topic: MATHEMATICS TECHNOLOGY AND DIGITISATION	1. Access the edublocks programme to check whether the problems in lesson 10 are rightangled triangles. 2. Given a code, analyse what it is for and check if it works correctly. 3. Given a code, analyse the objective of the programme, find the two errors in the programme, 4. Correct the programming in Edublocks. 5. Create a project that allows you to correctly determine the adjacent side and test it to ensure that it works correctly, then share it with the teacher.	Appendix I 2 hours

Expected learning outcomes	Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.
	Export the opportunities and risks offered by digitalisation to build an inclusive global citizenship that respects cultural diversity.

Lesson 13: Was Christopher Columbus wrong in estimating the distance to the Indies? Is the distance on a plane the same as the distance on a sphere?		
STEAM topic: MATHEMATICS	plane or the question of whether the distance on a sphere is the same as the distance on a plane. - based - distance - Christopher Columbus used, the straight-line distance obtained from - Pythagoras' theorem, or the distance on a sphere. - Access Geogebra classic to analyse whether three points located on the plane - satisfy the Pythagorean Theorem. - Given two points, determine the distance between these two points on the plane. Reminder of what geographical coordinates are. Analysis of the geographical coordinates of the poles. Access to Google Earth to analyse the distance between the North and South Poles and assess why it is different from the straightline distance.	Appendix II 1 hour
Expected learning outcomes	Calculate and contextualise the actual and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 14: Was Christopher Columbus wrong in estimating the distance to the Indies? How far did Christopher Columbus travel on his four voyages to America?

STEAM topic: MATHEMATICS	1. Compare the use of Google Earth with 16th century navigation tools 2. Analysis of the difficulties Christopher Columbus had in recognising the distance to the Indies.	Appendix II 2 hours
	3. Reading about the background to the measurement of this distance by the mathematician Paola del Pozzo Toscanelli. 4. Assess whether, using current methods, we could determine whether Paola Toscanelli's measurements are correct and whether we could determine whether the current distances are correct. 5. Visualisation and analysis of the map used by Christopher Columbus on his four voyages to America. 6. Thoughts and explanations on how to use Google Earth to determine the total distance travelled by Christopher Columbus on his four voyages to America. 7. Access to Google Earth to determine the four voyages. 8. Calculation of the total distance. 9. Reasoning whether Paolo del Pozzo Toscanelli's statement about the distance is correct or incorrect and connecting it with what has been learned in Geography and History.	
Expected learning outcomes	Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 14: Was Christopher Columbus wrong in estimating the distance to the Indies? How far did Christopher Columbus travel on his four voyages to America?		
STEAM topic: MATHEMATICS	3. Compare the use of Google Earth with 16th century navigation tools 4. Analysis of the difficulties Christopher Columbus had in recognising the distance to the Indies.	Appendix II 2 hours

	10. Reading about the background to the measurement of this distance by the mathematician Paola del Pozzo Toscanelli. 11. Assess whether, using current methods, we could determine whether Paola Toscanelli's measurements are correct and whether we could determine whether the current distances are correct. 12. Visualisation and analysis of the map used by Christopher Columbus on his four voyages to America. 13. Thoughts and explanations on how to use Google Earth to determine the total distance travelled by Christopher Columbus on his four voyages to America. 14. Access to Google Earth to determine the four voyages. 15. Calculation of the total distance. 16. Reasoning whether Paolo del Pozzo Toscanelli's statement about the distance is correct or incorrect and connecting it with what has been learned in Geography and History.	
Expected learning outcomes	Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 15: How far do those currently seeking refuge in Spain travel? Report on migration in the world 2024		
STEAM topic: MATHEMATICS	1. Analysis of graphs and interpretation of data from international reports on migration in the world.	Appendix III 1 hour
Expected learning outcomes	Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 16: How far do those currently seeking refuge in Spain travel?

STEAM topic: MATHEMATICS	1. Study the table based on official data about those seeking refuge in Spain. Analyse the variables. 2. Use of the CODAP programme to represent, analyse and interpret the different variables.	Appendix III 2 hours
Expected learning outcomes	Calculate and contextualise the real and symbolic distances travelled by migrants and refugees to reach Spain, applying geographical and mathematical knowledge.	

Lesson 17: The Will of Queen Isabella the Catholic

STEAM topic: SPANISH LANGUAGE AND LITERATURE	1. Reading, analysis and interpretation of the Will of Queen Isabella the Catholic in the context of indigenous rights.	Appendix VI 2 hours
Expected learning outcomes	• Interpret literary texts that represent migration and cultural coexistence, valuing their function as a means of expression and reflection on diversity. • Recognise and analyse the linguistic and narrative resources used in the texts to generate empathy towards indigenous peoples or foreigners.	

Lesson 18: Human rights

STEAM topic: VALUES	1. Introduction through a series of questions about human rights. 2. Team reading of the different texts. 3. Creation of murals depicting their understanding of human rights.	Appendix IV 1 hour
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Expected learning outcomes expected learning outcomes	• Reflect on the concept of "relative distance" from an ethical perspective, understanding how empathy and solidarity reduce cultural and social barriers (Education in Civic and Ethical Values). • Identify prejudices towards foreigners and develop ethical arguments to promote attitudes of respect, inclusion and democratic coexistence based on the Charter of Human Rights (Education in Civic and Ethical Values). • Export the opportunities and risks offered by digitalisation to build an inclusive global citizenship that respects cultural diversity (Technology and Digitalisation/Education in Civic and Ethical Values).
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Lesson 19: Accepting the foreigner in a globalised world where distance is relative		
STEAM topic: VALUES	1. Writing an essay on students' reflections and learning about the main question of the scenario	Appendix V 2 hours
Expected learning outcomes	• Reflect on the concept of "relative distance" from an ethical perspective, understanding how empathy and solidarity reduce cultural and social barriers (Education in Civic and Ethical Values). • Identify prejudices towards foreigners and develop ethical arguments to promote attitudes of respect, inclusion and democratic coexistence based on the Charter of Human Rights (Education in Civic and Ethical Values). • Export the opportunities and risks offered by digitalisation to build an inclusive global citizenship that respects cultural diversity (Technology and Digitalisation/Education in Civic and Ethical Values).	

Timeline

Describe the estimated time for implementation for each category

Preparation time:

Estimated teaching time for each of the STEAM subjects

Geography and History: 8 sessions
Spanish Language and Literature: 2 sessions
Mathematics: 8 sessions
Civic and Ethical Values Education: 2 sessions
Technology: 1 session
Foreign Language (English): 2 sessions

Assessment time:**1 session of 60 minutes based on the project post-survey**

Teaching resources (materials and technological tools)

Describe the teaching materials and technological tools that will be used in the different lessons.

Materials

De las Casas, B. (1552). Brevísima relación de la destrucción de las Indias. José Miguel Martínez Torrejón (Ed.), Biblioteca Virtual Miguel de Cervantes.
https://www.cervantesvirtual.com/obra-visor/brevsima-relacin-de-la-destruccin-de-las-indias-0/html/847e3bed-827e-4ca7-bb80-fdcde7ac955e_18.html

De la Torre y de Cerro, A. y Alsina, E. (1974). Testamento y codicilo de Isabel I de Castilla, llamada la Católica. Duoda, Centro de Investigación de Mujeres. Universidad de Barcelona. <https://www.ub.edu/duoda/diferencia/html/es/primario16.html>

Ministerio de inclusión, Seguridad Social y Migraciones
https://www.inclusion.gob.es/web/opi/estadisticas/productos_servicios/infografias/arraigo

Online tools

CODAP <https://codap.concord.org/>
Google Earth <https://www.google.es/intl/es/earth/index.html>
Edublocks <https://edublocks.org/>

Assessment

Assessment tools

Describe the tools used to assess:

- students' data science knowledge in civic engagement and social justice in the topic you have planned,
- students' readiness for learning data science. (Appendices used in the classroom are welcome).

Appendices

Appendix I: The Earth locally tends to be flat

Pythagoras' theorem and its proofs.

- In Geography and History class, you have studied the "Conquest of America." Summarise with your partner:
 - a. Why did they discover America?
 - b. What difficulties did they encounter on a social level?
 - c. What difficulties were encountered at the geographical level?
 - d. Why did they have difficulty understanding the distance to the Indies?
 - e. Did they believe that the Earth was a circle or a sphere?
- Watch the following video and explain what geometric models of the Earth exist and why:

[The SHAPE of the EARTH](#) 

Pythagoras is credited with being the first to propose the idea that the Earth is round.

He is known to have been a native of the island of Samos in the eastern Aegean Sea and to have been born around 570 BC. Pythagoras founded a school of thought in Magna Graecia that combined philosophical, mystical and scientific aspects.

The central idea of Pythagorean thought was that numbers were the essence of all things, which is why the school focused on the study of mathematics and geometry. Among other things, they discovered irrational numbers and dodecahedrons, and studied triangles and their properties in depth. One of the maxims of the Pythagoreans was: "Start from the beginning and go through everything."

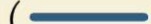
So, we will begin our journey towards studying the distance travelled by refugees arriving in Spain from the beginning. That is, under the mistaken belief that the Earth is flat and using the simplest definitions of geometry found in Book I of Euclid's Elements.

- Access the first book of Euclid's Elements at the following link, write down the definitions, and paste an image if applicable from:
<https://www.c82.net/euclid/es/book1/>
 - a. point
 - b. line
 - c. straight line
 - d. plane angle

- e. right angle
 - f. circle
 - g. diameter of a circle
 - h. semicircle
 - i. segment of a circle
 - j. triangle
 - k. equilateral triangle
 - l. scalene triangle
 - m. right-angled triangle
 - n. theorem
- Read Proposition XLVII. Theorem from Book I of Euclid:

PROPOSICIÓN XLVII. TEOREMA.



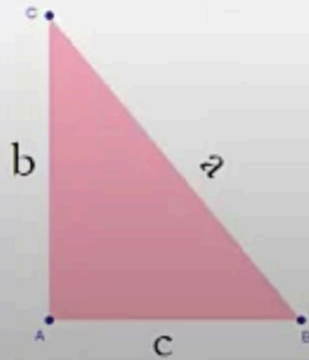
N *un triángulo rectángulo*  *el cuadrado de la hipotenusa*  *es igual a la suma de los cuadrados de los lados, (*  *y*  *).*

We know this theorem as the Pythagorean Theorem, in which the longest side is called the hypotenuse, the shorter side is called the opposite side, and the longest side is called the adjacent side. With these clarifications, write the theorem in rhetorical language.

The theorem in algebraic language is written as

El teorema de Pitágoras establece:

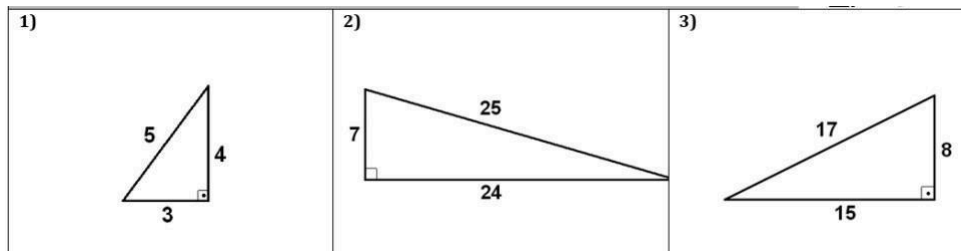
Dado un triángulo rectángulo, el cuadrado de la hipotenusa es igual a la suma de los cuadrados de los catetos.



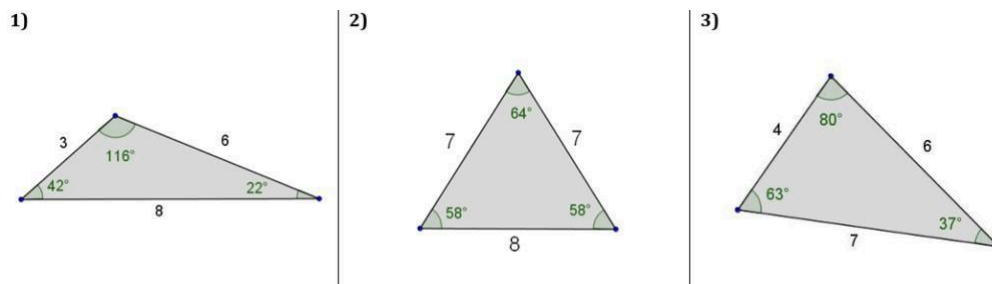
$$a^2 = b^2 + c^2$$

Must triangles that satisfy the Pythagorean Theorem be rectangles?

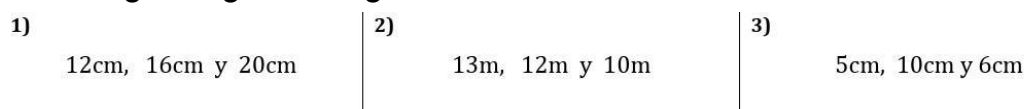
- Calculate the square of the three sides of these right-angled triangles and check in each case that Pythagoras' Theorem is satisfied:



- Calculate the square of the three sides of these triangles and check that none of them satisfy the Pythagorean Theorem:

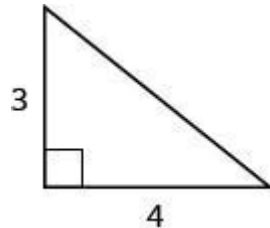


- In each of the following cases, the measurements of the three sides of a triangle are provided. Determine which of them are right-angled triangles:

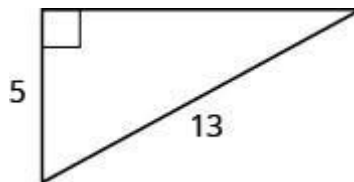


Applications of the Pythagorean Theorem

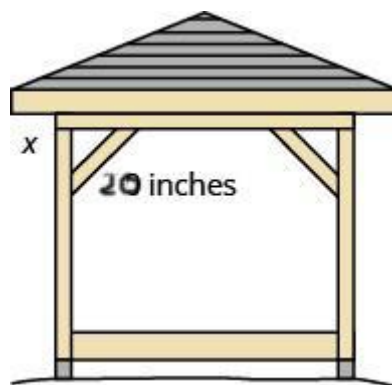
1. Watch the following video carefully to see the different applications of the Pythagorean Theorem
[07 Pythagorean Theorem Exercises](#)
2. Take a close look at the first two videos in the previous exercise, in which you calculate the length of the missing side, and then do the following exercises using the Pythagorean Theorem:
 - a. Use the Pythagorean Theorem to find the length of the hypotenuse



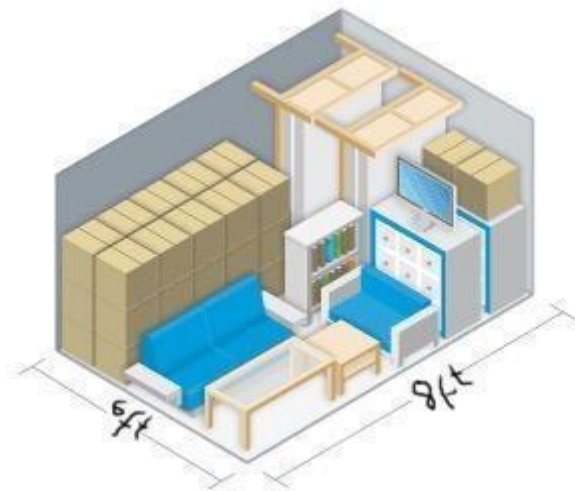
- b. Use the Pythagorean Theorem to find the length of the longest leg.



3. Watch the video above about firefighters and solve the following problems:
 - a. Noor is building a gazebo and wants to shore up each corner by placing a 20-inch wooden support diagonally, as shown in the figure below. How far below the corner should she attach the support if she wants equal distances to each end of the support?



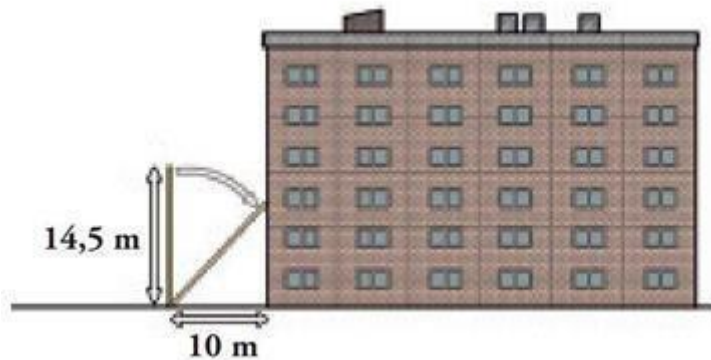
- b. The floor of a storage unit is 6 feet long and 8 feet wide. What is the distance between two opposite corners of the floor?



- c. The students of Alcornocal go to Cieloazul School every day, making a long journey from home because they have to pass through the village of Buenabrisa. The transport agency has designed a tunnel under the mountain that will connect Alcornocal directly to Cieloazul. How long will it take to design the tunnel to connect Alcornocal and Cieloazul directly? (Use these images to help you.)



- d. A 14.5-metre-long fire ladder is leaning against the façade of a building, with the foot of the ladder 10 metres from the building. How high, in metres, does the ladder reach?



Would a computer be able to identify whether a triangle is a right-angled triangle and, if so, determine the hypotenuse?

1. Go to the following programme:

<https://app.edublocks.org/project/2QsuP2wRWYdb4k4KX1U6eoNRagB2/QdVIBtC4jjxLTDJEAS8m>



- a. Click on  and follow the programme instructions to check whether the triangles in activity number 3 are right-angled or not.
- b. Look carefully at the block programming and explain what each block is for based on the colour used.

```
# Start code here

print( "Este programa es para comprobar si un triángulo es rectángulo" )

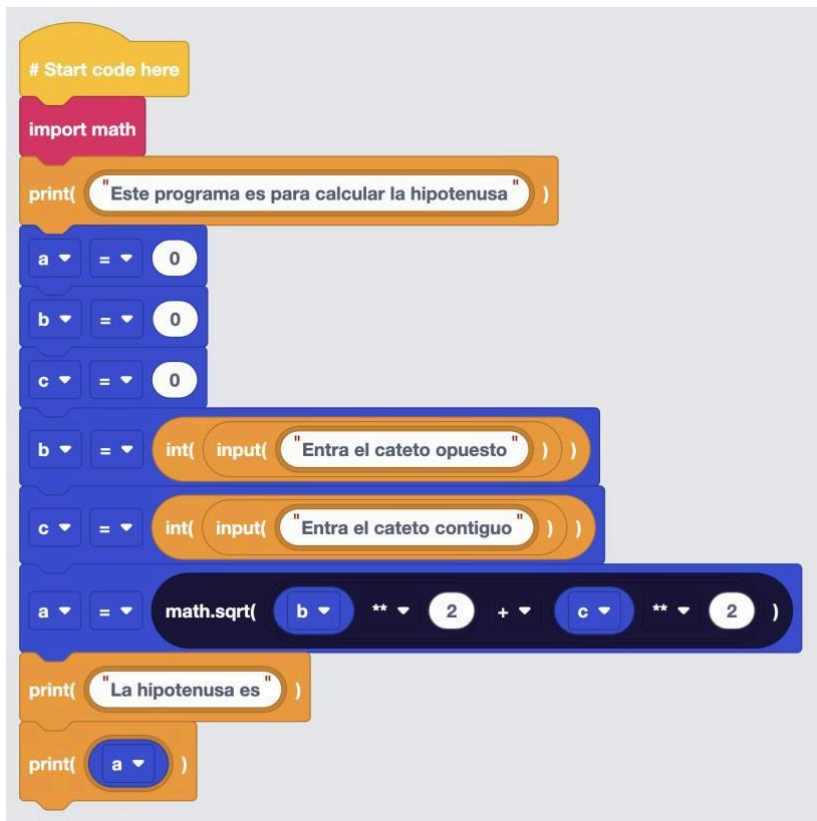
import math

a = 0
b = 0
c = 0
a2 = 0

a = int( input( "Entra el valor de la hipotenusa" ) )
b = int( input( "Entra el valor del cateto opuesto" ) )
c = int( input( "Entra el valor del cateto contiguo" ) )

if a ** 2 == b ** 2 + c ** 2 :
    print( "Es un triángulo rectángulo" )
else:
    print( "No es un triángulo rectángulo" )
```

1. Given the following code:



```
# Start code here
import math

print( "Este programa es para calcular la hipotenusa " )

a = 0
b = 0
c = 0

b = int( input( "Entra el cateto opuesto " ) )
c = int( input( "Entra el cateto contiguo " ) )

a = math.sqrt( b ** 2 + c ** 2 )

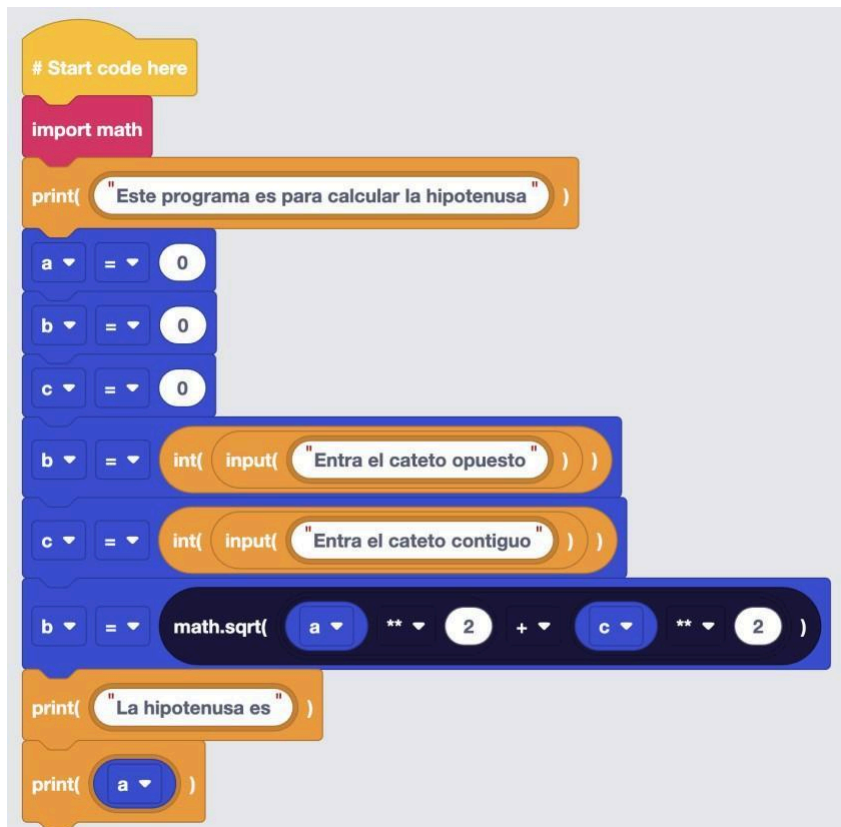
print( "La hipotenusa es " )

print( a )
```

- Analyse and explain what it is used for
- Access the programme and run it to check whether it works correctly using the activities you did at home the day before.

<https://app.edublocks.org/project/2QsuP2wRWYdb4k4KX1U6eoN RagB2/mjEao9aPWI3MGRqJm2WK>

- Given the following code:



- Analyse the objective of the programme coded in blocks:
- Find the two errors in the programme:
- Access the Edublocks programme (<https://app.edublocks.org/>) and register using your La Salle email address.

- Create a new project that allows you to correctly determine the opposite side.

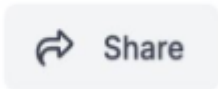
- Share the link by clicking on the button

, copy it and send it to

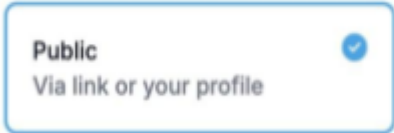
the
option
your
teache
r.

+ Create Project

3. Create a new project that allows you to correctly determine the adjacent side and make sure it works correctly.

Share

4. Share the link by clicking on the button

Public
Via link or your profile

, copy it and send it to your select the

option teacher, and paste the link here.

Appendix II: Was Christopher Columbus wrong in estimating the distance to the Indies?

Is the distance on a plane the same as the distance on a sphere?

1. In Geography and History class, you studied the "Conquest of America." Did Christopher Columbus use the straight-line distance obtained from Pythagoras' theorem, or is the distance on a sphere different?
2. Go to Geogebra classic
(<https://www.geogebra.org/classic?lang=es>)
 - a. locate the following points $A(2,3)$, $B(5,7)$, $C(5,3)$,
 - b. connect the points with a line segment,
 - c. determine the length of each side of the triangle,
 - d. analyse whether they form a right-angled triangle,
 - e. analyse whether they satisfy the Pythagorean theorem
3. Given points $A(0,0)$ and $B(3,4)$. Determine the distance between A and B by applying the Pythagorean Theorem.
4. Remember from Geography and History from last year and this school year what geographical coordinates are.
5. Use the Internet to help you answer the following questions:
 - a. What is the diameter of the Earth at its poles?
 - b. What is the maximum circumference of the Earth?
 - c. What are the coordinates of the North Pole?
 - d. What are the coordinates of the South Pole?
 - e. What is the straight-line distance between the North Pole and the South Pole?
6. Go to Google Earth
(<https://www.google.es/intl/es/earth/index.html>)
 - a. What is the distance between the North Pole and the South Pole?
 - b. Why is the straight-line distance different from the distance on the Earth's sphere?

What distance did Christopher Columbus travel on his four voyages to America?

As we saw in the previous session, Google Earth is very useful when it comes to imagining distances on Earth, but:

1. What happened in the 16th century?

2. What difficulties did Christopher Columbus encounter in recognising the distance to the Indies?

We do not know for certain when the project was conceived by the Genoese navigator Christopher Columbus, but we could say that it was after his marriage to Felipa Muñiz Perestrelo, when he had access to the papers of his father-in-law Pedro Perestrelo, who had been a great seafarer. From that moment on, he began systematic preparations to carry it out.

The theoretical basis for the project began with his knowledge of the existence of a letter from the mathematician Paolo del Pozzo Toscanelli to the Portuguese canon Fernao Martins. The Florentine mathematician outlined the possibility of reaching India from the west, crossing a narrow sea that would be navigable in a few days, and even sent an explanatory map at the request of the Portuguese monarch Alfonso V. According to Hernando Colón, his father wrote to Toscanelli, who sent him a copy of the letter in response to Colón's new questions. The mathematician and geographer accompanied his reply with an illustrated map.

On the mapasmilhaud website, you can find a version of the map that Paolo del Pozzo Toscanelli sent to Christopher Columbus:

<https://mapasmilhaud.com/mapas-antiguos/mapa-del-mundo-segun-cristobalcolon-1911/>

This representation combines the map of the Atlantic Ocean described by

Paolo dal Pozzo Toscanelli in 1474, in orange, with a representation of America in its correct position in relation to Toscanelli's map. The text of the letter highlights the fundamental aspect of distance:

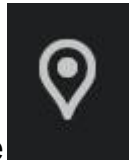
"And from the city of Lisbon, due west, there are twenty-six spaces on the said chart, and in each of them there are two hundred and fifty miles to the most noble and great city of Quinsay."

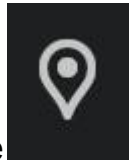
1. Could we, with today's technology, know if Paolo Pozzo Toscanelli's current argument is correct? Could we know the distance travelled by Christopher Columbus?

To do so, we would need a map showing the four voyages of Christopher Columbus. This map can be found in the Miguel de Cervantes Virtual Library, at the following link:

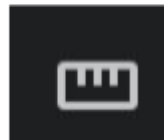
https://www.cervantesvirtual.com/portales/cristobal_colon/imagenes_mapas/i_magen/imagenes_mapas_03mapa_de_los_cuatro_viajes_de_cristobal_colon/

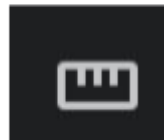
2. Think about and explain how you will use Google Earth to determine the total distance travelled by Christopher Columbus on his four voyages to America.
3. Go to Google Earth
(<https://www.google.es/intl/es/earth/index.html>)
 - a. Create a new project
 - b. Share it with your team and your maths teacher, using your school email address and "editor" access.
 - c. Paste the link to the shared project here.

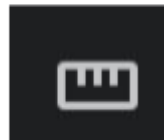


- d. Use  to locate all the ports where Christopher Columbus landed.



- e. Use  the  tool to trace the route of each of the voyages.



- f. Use the tool  to measure each of the voyages.
4. Calculate the total distance travelled during the four voyages. Remember that on the fourth voyage, Christopher Columbus landed in Jamaica in 1504.
5. Read the following text by Paolo del Pozzo Toscanelli carefully and use your calculations to determine whether the arguments are correct or incorrect (connect the arguments with what you have learned in Geography and History).
"the very short distance from here to the Indies, where spices originate, by sea, shorter than the distance you travel to Guinea..."

Appendix III: How far do those seeking refuge in Spain currently travel?

Figures on refugees and settled immigrants in Spain from abroad

1. Queen Isabella the Catholic stated in her will:

"I therefore beg the King, my lord, most affectionately, and I entrust and command the said Princess, my daughter, and the said Prince, her husband, to do so and to comply, and that this be their main purpose, and that they apply themselves diligently to this task and do not allow or give cause for the Indians who are neighbours and inhabitants of the said Indies and Mainland, conquered and yet to be conquered, suffer any harm to their persons or property, but that they be treated well and justly, and if they have suffered any harm, that they remedy it and provide for it in such a way that it does not exceed in any way what is anointed and commanded to us by the apostolic letters of the said concession."

Do you believe that today the Spanish Crown and, on its behalf, the Spanish State should remedy the situation of people who arrive in Spain having suffered grievances in their countries of origin?

To focus on the current situation, in maths class we will be interested in investigating the current causes of migration. And, among the many causes that lead people from one country to seek refuge in another.

2. Read the following text:

<https://www.acnur.org/eses/noticias/historias/refugiado-o-migrante-cual-es-el-termino-correcto> and answer the question:

Is being a "migrant" the same as being a "refugee"? Why?

3. Watch the following video carefully until minute 3:17 and answer:

<https://youtu.be/CHEB2rTw1bc?si=Q5iAEXOnWj0BIRNP>

- What are the reasons why refugees have left their country?
- Who might persecute them?
- Can you be a refugee if you are a minor?
- What is asylum?

Spanish law states that:

"Arraigo is a temporary residence permit granted in exceptional circumstances to foreign nationals who have been in Spain for at least three years and have one or more employment contracts and either

have family ties in Spain or are socially integrated." Cited in

<https://www.inclusion.gob.es/web/migraciones/w/autorizacion-residencia-temporal-porcircunstancias-excepcionales.-arraigo-social>

4. Go to the following website and explain what the Permanent Immigration Observatory (OPI) is:
https://www.inclusion.gob.es/web/opi/estadisticas/observatorio_permanente_inmigracion
5. Go to the following website of the Permanent Observatory on Immigration (OPI) and analyse the graphs:
https://www.inclusion.gob.es/web/opi/estadisticas/productos_servicios/informografias/arraigo
 - a. In the study of the quarterly evolution of the number of people according to the type of settlement, answer:
 - i. What type of ties has grown the most since March 2021?
 - ii. In what year did social ties begin to decline?
 - iii. In December 2024, how many people had family ties? What percentage of the total number of people with ties did they represent? What does it mean that there was a positive variation of 79.8% per annum?
 - b. In the study of people by gender and age group, answer the following questions:
 - i. For which age groups is the number of men with roots greater than the number of women?
 - ii. Which age group has the highest number of people with roots?
 - iii. What are the percentages of persons with family ties by gender for the 0-15 age group?
 - c. In the graph of people by province of authorisation, answer:
 - d. Which provinces grant the highest number of rootedness authorisations to immigrants?
 - e. What is the situation in the province of Cádiz?

6. In the graph showing people by main country of nationality and type of settlement, answer the following questions:
 - f. Which country has the highest number of people with roots?
 - g. Which country has the highest number of immigrants with roots in training?
 - h. Which country has the highest level of social integration?
7. On the website
https://www.inclusion.gob.es/web/opi/estadisticas/productos_servicios/infografias/arraigo select your gender and age group, analyse the graphs and write a 200word text with your conclusions.

Report on migration in the world 2024

The vast majority of people continue to live in the countries where they were born - only one in 30 people.

According to data from the World Migration Report 2024, when addressing the issue of migration, the starting point is the figures. If we understand the changes in scale, emerging trends and the evolution of demographic variables brought about by social and economic transformations caused by phenomena such as migration, we will better understand the changes in the world we live in and be able to plan for the future more effectively. Help with this planning!

According to the most recent estimate, in 2020 there were approximately 281 million international migrants in the world, a figure equivalent to 3.6% of the global population. Globally, the estimated number of international migrants has increased over the last five decades. The estimated total of 281 million people living in a country other than their country of birth in 2020 is 128 million higher than the 1990 figure and more than triple the 1970 figure.

1. Determine the percentage change in the estimated number of people who migrated from 1970 to 1990 and from 1990 to 2020.
2. Read the following table carefully and determine the variations between the 2000 and 2024 reports.

	Informe de 2000	Informe de 2024
Número estimado de migrantes internacionales	150 millones	281 millones
Proporción estimada de migrantes en la población mundial	2,8%	3,6%
Proporción estimada de migrantes internacionales de sexo femenino	47,5%	48,0%
Proporción estimada de niños entre los migrantes internacionales	16,0%	10,1%
Región con la proporción más alta de migrantes internacionales	Oceanía	Oceanía
País con la proporción más alta de migrantes internacionales	Emiratos Árabes Unidos	Emiratos Árabes Unidos
Número de trabajadores migrantes	—	169 millones
Total mundial de las remesas internacionales (en dólares EE.UU.)	128.000 millones	831.000 millones
Número de refugiados	14 millones	35,4 millones
Número de desplazados internos	21 millones	71,4 millones

Fuentes: Véanse OIM, 2000 y el presente informe para una lista de recursos.

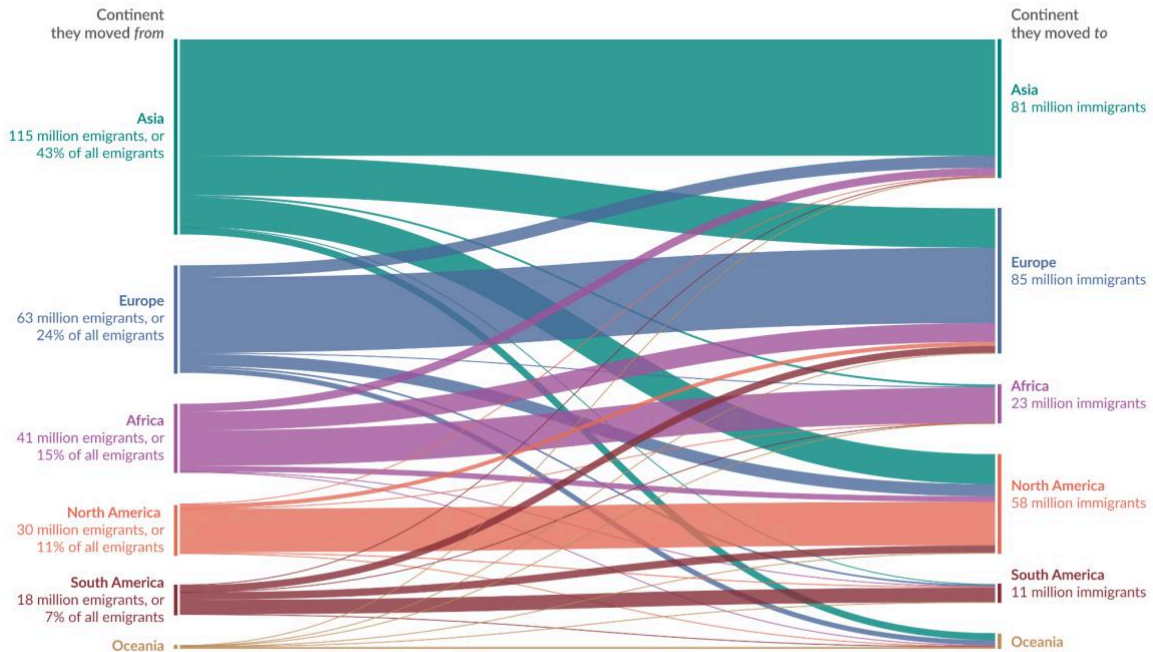
Notas: Las fechas de las estimaciones consignadas en el cuadro pueden diferir de la fecha de publicación de los informes (véanse las fechas de las estimaciones en los informes correspondientes); véase también el desglose regional en el capítulo 3 del presente informe.

3. Read the following graph and explain what the phrase "moving between continents is less common than moving within the same continent" means.

Moving between continents is less common than moving within continents

Our World
in Data

Total number of international migrants by birthplace and residence in 2020.



Data source: United Nations Department of Economic and Social Affairs

OurWorldinData.org — Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the author Simon van Teutem

5. Read the following text to explore the causes of migration:

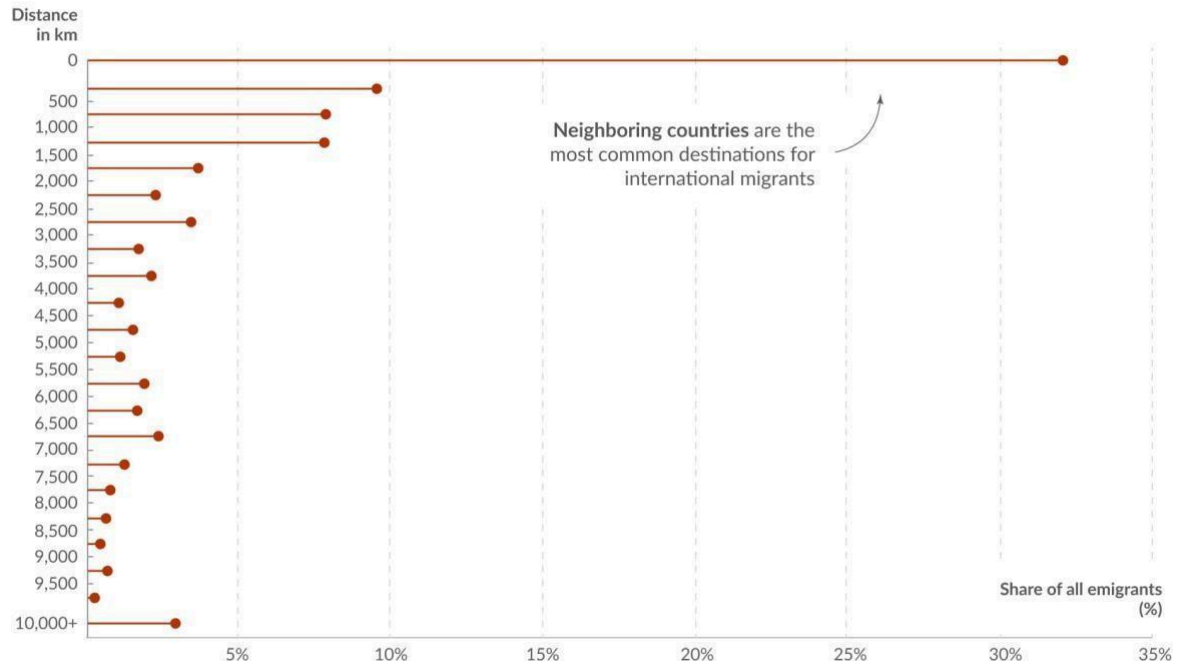
<https://www.europarl.europa.eu/topics/es/article/20200624STO81906/e>
[explorar-las-causas-de-la-migracion-por-que-migran-las-personas](#)

6. Analyse the following graph on the international distribution of migrants according to the distance between their origin and destination.

The distribution of international migrants by the distance between their origin and destination countries, 2020

Our World
in Data

The horizontal axis represents the share of all international migrants falling within each distance range.



Data source: United Nations Department of Economic and Social Affairs (2020) and Natural Earth (2024)

Note: The distance represents the shortest geographical distance between the borders of the origin and destination countries. For example, in Western Europe, the distance between Germany and France would be measured from the closest points on their shared border, not the distance between specific cities like Berlin and Paris.

OurWorldinData.org — Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the author Simon van Teutem

Answer the following questions:

- Is it true that neighbouring countries are the most common destinations for international migrants?
- What percentage of people travel more than 10,000 kilometres?
- Is it possible to travel that distance on Earth?

7. Research on the Internet about

- two countries that are 0 km apart,
- the countries that are zero kilometres away from Spain,
- two countries that are more than 3000 km apart,
- the distance travelled by refugees from Ukraine who have arrived in Spain
- two countries that are more than 10,000 kilometres apart.

8. Research: how is the distance between two points on Earth calculated?

What distance do refugees travelling to Spain cover?

1. Access the CODAP programme at the following link:
<https://codap.concord.org/app/static/dg/es/cert/index.html#shared=https%3A%2F%2Fcfmsharred.concord.org%2F5Fq1KXcr3hdFgOpAv4Uw%2Ffile.json>
2. Read the table carefully and analyse:
 - a. How many cases/rows does it have?
 - b. What are the statistical variables/columns for which we have information? What is the magnitude and unit of measurement for each of them?



Mapa

3. Click on the map tool . As you move over it, it gives you information about the country from which refugees have come to Spain.
 - a. Apply what you have learned in Geography and History about how to analyse a map.
 - b. Interpret the results of the map by writing a 50-word text.



Gráfico

4. Click on the graph tool .
 - a. Select the country variable for the horizontal axis by clicking here
 - b. Select the variable number of refugees for the vertical axis.
 - c. Paste a screenshot of the graph here.
 - d. Explain what you observe in the graph.



Gráfico

5. Click on the graph tool
 - a. Select the latitude (degree) variable for the horizontal axis.

- a. Click on the graph
select group into



tool and
bins



- b. Click on the calculation tool ' ' and select count and percentage.
c. Paste a screenshot of the graph here.
d. Explain what you observe in the graph and interpret the results geographically.



2. Click on the graph tool.

- a. Select the variable distance to Spain (degree) for the horizontal axis.



- b. Click on the graph
select group into

tool and
bins



- c. Click on the calculation tool ' ' and select count and percentage.
d. Paste a screenshot of the graph here.
e. Explain what you observe in the graph and interpret the results geographically.



- f. Select points again in the
tool .

graph



- g. Click on the calculation tool  and select count, show labels, mean, median, measures of dispersion/mean absolute deviation.
- h. Paste a screenshot of the graph here.
- i. Explain what you see in the graph and interpret the results to answer the question: *how far do refugees travelling to Spain travel?*



7. Click on the graph tool

- a. Select the variable longitude (degree) for the horizontal axis.



- b. Click on the graph select group into



tool and
bins

- c. Click on the calculation tool '  ' and select 'count and percentage'.
- d. Paste a screenshot of the graph here.
- e. Explain what you observe in the graph and interpret the results geographically.

Appendix IV: Human Rights

1. INTRODUCTION (10 minutes)

We begin with initial questions for the students. In cooperative groups, they take note of the questions and answer them:

1. What are human rights for you?
2. Do you believe that all human rights are currently respected in our country and
3. in the world?

4. Can you give examples of where these rights are violated?
5. What actions can we take to promote and protect human rights in our world, starting with our local community?

Share your ideas with the class.

Briefly explain what human rights are with a simple explanation, such as "the rights inherent to all people regardless of their origin, race, gender, religion, etc."

Indicate that in this class we will explore whether these rights are fulfilled in different contexts and places. And that we will reach some final personal conclusions.

2. REFLECT AND EXPLORE (40 minutes)

2.1. Group reading (20 minutes)

Each group reads one of the texts 1 . If necessary, some can be repeated. Then, they discuss the following questions and take notes in a Google document shared with the teacher for assessment:

+What does this right mean to you?

+Why do you think it is important that it exists?

+Have you seen any situations where this right is not respected? In this question, you should look for information such as images, statistical data, videos, etc., which show how this right is not currently being respected, either in our country or in another.

1 These texts are at the end of this document.

Make sure that the data is current, from this year or last year. You can add this information to the Google document.

2.2. The rights poster (20 minutes)

Each group creates a poster on card or, failing that, continuous paper, which includes the five rights (life, liberty, education, health, equality). Each group works on the right they have chosen. It should have images, keywords and a message that promotes respect for those rights. It can be hung in the classroom or in a visible place once the work is finished and evaluated work.

5. Conclusion and final reflection (10 minutes)

Ask the students: What can we do to promote and defend human rights? Encourage them to share specific ideas (report injustices, respect others, stay informed).

The session ends by emphasising the importance of being vigilant and taking action to ensure that human rights are a reality for all people.

TEXTS ON HUMAN RIGHTS

Right to life

We all have the right to live. Life is a gift that we must respect. No one can take another person's life without a just reason and in accordance with the law. It is important that we can all live in peace and without fear.

Right to freedom

Every person has the right to be free. This means that we can think what we want, say what we think, and decide what to do with our lives, while always respecting others.

Freedom helps us to be who we are and to make our own decisions.

Right to education

All children have the right to go to school and learn new things. Education helps us grow, understand the world, and have better opportunities in the future. No one should prevent anyone from studying because of their race, gender, or religion.

Right to health

Everyone has the right to be healthy and receive medical care when they need it. Health is very important for living well and being happy. Governments and communities must ensure that everyone has access to hospitals, medicines and medical care.

Right to equality

We are all equal and deserve to be treated with respect. It does not matter what colour our skin is, whether we are male or female, or where we come from. Equality means that we should all have the same opportunities and rights, without discrimination.

Annex V: Accepting the foreigner in a globalised world where distance is relative

Accepting the foreigner in a globalised world where distance is "relative".

You must write an original text, approximately one hundred words in length. The structure must be simple and clearly organised, dividing the text into different paragraphs.

To achieve this, write an outline with the main ideas you want to develop. You can use this questionnaire as a script:

1. What have you learned about the new realities that surround us in today's world?
2. Do you think it is important to be aware of these new realities in order to be aware of them and to know how to adapt ourselves as committed citizens?
3. What are the positive and negative implications of travel or population movements in today's world?
4. Is knowledge of history important? And how does this knowledge influence in creating responsible and committed citizens?
5. Express your own opinion about everything you have worked on in this project. What have you learnt?

The most important aim is to search among the work done in other subjects for reliable sources and planning to express in a creative, appropriate and coherent way your understanding of the acceptance of foreigners in a globalised world where distance is "relative".

Now write your text on the lines below. Remember, you must write 100–130 words.

Ensure that you:

- Use the appropriate linkers (e.g. First of all, Next, Finally, etc.) to describe the order of ideas.
- Write five paragraphs expressing your ideas.
- Check your spelling, grammar and punctuation.
- Check that the text contains all the information you must include.

Appendix VI: Will of Queen Elizabeth the Catholic

EXCERPT VERY BRIEF ACCOUNT OF THE DESTRUCTION OF THE INDIES

Having seen this, and understanding the deformity of the injustice done to those innocent people, destroying and tearing them apart without just cause or reason, but solely out of the greed and ambition of those who seek to do such nefarious deeds, may Your Highness see fit to effectively plead and persuade His Majesty to deny those who request such harmful and detestable undertakings, and instead put a perpetual silence on this infernal demand, with such terror that no one will dare to even mention them from now on.

TESTAMENT OF ISABEL THE CATHOLIC

Isabel I, Queen of Castile, also known as Isabel the Catholic, dictated her will in her native language on 12 October 1504 and, three days before her death, on 23 November, she signed her last will and testament in Medina del Campo. Isabel declared her eldest daughter, Princess Juana I of Castile, Archduchess of Austria and Duchess of Burgundy, as the sole heir to all her kingdoms and possessions. She

ordered that if Princess Juana was absent from her kingdoms or unable to rule them, King Ferdinand, her father, should rule on her behalf until her grandson, Prince Charles, the eldest son of Juana and Philip the Handsome, reached the age of twenty and was able to rule the kingdoms.

Version

In the name of Almighty God, Father, Son and Holy Spirit, three persons and one divine essence, Creator and universal Ruler of Heaven and Earth [...] and of the glorious Virgin Mary, his mother, Queen of Heaven and Lady of the Angels, our lady and advocate, of that prince of the Church and angelic knighthood Saint Michael, and of the heavenly messenger the archangel Saint Gabriel and [...] especially of that holy precursor of our redeemer Jesus Christ, Saint John the Baptist, and the most blessed princes of the apostles, Saint Peter and Saint Paul, with all the other apostles, notably the most blessed Saint John the Evangelist [...], whom I have as my special advocate in this present life and hope to have at the hour of my death, and in that terrible judgement and narrow examination, and more terrible against the powerful when my soul will be presented before the royal seat and throne of the Sovereign Judge [...], who according to our merits will judge us all, together with his blessed and worthy brother, the Apostle James [...], with my beloved and special advocate, Saint Francis, with the glorious confessors and great friends of our Lord, Saint Jerome, glorious doctor, and Saint Dominic [...] and with the blessed Saint Mary Magdalene, whom I also have as my advocate; because if it is certain that we must die, it is uncertain when and where we will die, therefore we must live and be prepared as if we were to die at any moment.

23. Furthermore, let all who see this letter of testament know that I, Doña Isabel, by the grace of God, Queen of [...] Castile, León, Aragon, Sicily, Granada [...], being sick in body with the illness that God has given me, but sound and clear in mind [...], I order this my letter of testament and last will, wishing to imitate the good King Hezekiah in disposing of my house as if I were about to leave it.

24. And first I commend my spirit into the hands of our Lord Jesus Christ [...].

25. And I wish and command that my body be buried in the monastery of Saint Francis, which is in the Alhambra in the city of Granada, dressed in the habit of the blessed poor man of Jesus Christ, Saint Francis, in a low grave that has no relief whatsoever, except for a flat slab with letters carved on it; but I wish and command that if the king, my lord, chooses a burial in any other church or monastery in any other part or place of my kingdoms, my body be transferred there and buried next to the body of his lordship, because the couple we formed

in life may be formed by our souls in heaven and represented by our bodies on earth. And I wish and command [...] that the funeral be simple, and that whatever would have been spent on a grand funeral be used to clothe the poor, and that any wax that would have been burned in excess be sent to those poor churches that my executors deem appropriate, so that it may be burned before the Sacrament.

26. I also wish and command that if I die outside the city of Granada, my entire body be taken without delay to the city of Granada. And if, due to the distance of the journey or the weather, it cannot be taken to the city of Granada, then in that case it should be placed and deposited in the monastery of San Juan de los Reyes in the city of Toledo. And if it cannot be taken to the city of Toledo, it should be deposited in the monastery of San Antonio de Segovia. And if it cannot be taken to the cities of Toledo and Segovia, it should be deposited in the monastery of San Francisco closest to the place where I died, and it should remain there until it can be transferred to the city of Granada, and I instruct my executors to make the transfer as soon as possible.
27. I also order that, before anything else, all debts of any kind – wages and marriages of servants and maids – be paid by the executors in the same year of my death from my movable property, and if they cannot be paid before the end of the year, they should be paid as soon as possible. And if the movable property is not sufficient to pay the debts, they shall be paid from the revenues of the kingdom [...], and they shall not be left unpaid so that my soul may be relieved of them [...].
28. I also command that after the debts have been fulfilled and paid, twenty thousand masses be said for my soul in churches and monasteries throughout my kingdoms and lordships, in those places that my executors deem appropriate, and that they give to said churches and monasteries the alms they deem appropriate [...].
29. I also command that once the debts have been paid, one million maravedis be distributed to marry poor maidens and another million maravedis so that poor maidens may devote themselves to religious life and serve God in that holy state.
30. I also command that two hundred poor people be clothed so that they may be special intercessors for my soul.
31. I also command that in the year of my death, two hundred needy captives who are in the hands of infidels be redeemed.

[...]

32. I also command that, due to the many needs that my lord the king and I have had since my accession to the throne, I have tolerated that some great knights and lords have taken possession of taxes, tithes, revenues and rights belonging to the Crown and Royal Patrimony of my kingdoms.

I also command that alms be given to the Cathedral of Toledo and to Our Lady of Guadalupe.

And as for the concessions of the town of Moya and other vassals that we made to Andrés Cabrera, Marquis of Moya, and to the Marquise, Beatriz de Bovadilla, for the loyalty with which they served us in recovering and acceding to the crown, and for the great services they have rendered me, I commend them to the King, my lord, and to the Princess, my dearest and most beloved daughter[...].

And also, in accordance with what I must and am obliged by law to do, I order, establish and institute as universal heir to all my kingdoms, lands and lordships and all my possessions the most illustrious Princess Doña Juana, Archduchess of Austria, Duchess of Burgundy, my dear and beloved eldest daughter, heir and legitimate successor to my kingdoms, lands and dominions, and that upon my death she shall be called queen [...].

[...]

And also, considering how obliged I am to look after the common good of my kingdoms and lordships, both because of the obligation I owe them as their queen and lady, and because of the many services that my subjects and vassals who live there have rendered me with great loyalty; and considering, too, that the best inheritance I can leave to the Princess and the Prince, my children, is to order my subjects to love them and serve them loyally as they have served the King, my lord, and me [...].

And, seeing that the Prince, my son, being of another nation and another language, if he did not conform to the laws, privileges, customs and traditions of these kingdoms, and he or the Princess, my daughter, did not govern them according to those laws, privileges, customs and traditions, they would not be obeyed or served as they should be, and they would not have the love that I would want them to have [...] ; and knowing that each kingdom has its laws, privileges, customs and traditions and is better governed by its natives: Therefore, wishing to remedy this situation so that the said Prince and Princess, my children, may govern these kingdoms as they should [...], I order and command that from now on no mayoralties, tenancies,

castles, fortresses, jurisdictions, offices of justice, offices in cities or towns, or offices of finance, to any person or persons who are not natives of these kingdoms; and that the officials before whom the natives of these lands must appear for any matter related to these lands shall be inhabitants of these territories. [...].

[...]

And also, in the event that upon my death the said princess, my daughter, is not in my kingdoms [...] or, being in them, does not wish or is unable to govern them, in accordance with what was agreed at the Cortes of Toledo in 1502 and of Madrid and Alcalá de Henares in 1503, it is established that in such cases the king, my lord, shall rule, govern and administer my kingdoms and lordships on behalf of the aforementioned princess, my daughter [...]; taking into account the greatness and excellent nobility and virtues of the king, my lord, and his great experience in governing the kingdoms [...]; I order and command that whenever the said princess, my daughter, is not in my kingdoms [...] or, being there, does not wish or is unable to take care of the government of the kingdoms [...] in such cases the king, my lord, shall administer, rule and govern my aforementioned kingdoms and hold the administration and government for the said princess, until the infant Charles, my grandson, eldest son and heir of the said prince and princess, has reached the age of twenty. And I beg the King, my lord, to accept the task of governing and ruling my kingdoms and dominions, as I hope he will do

[...].

And likewise, I earnestly beg and command the aforementioned princess, my daughter, [...] and the Prince, her husband, to always be very obedient and loyal to the king, my lord, and not to disobey him, but to serve him, treat and obey him with all reverence and obedience, giving him and causing him to be given all the honour that good and obedient children should give to their good father, and follow his commands and advice as is expected of them, so that in all matters concerning his lordship, it may appear that I am not needed and that I am alive

[...].

And also, I beg and entrust to the said prince and princess, my children, that just as the king, my lord, and I always had great love, unity and harmony, so may they have such love, unity and harmony as I expect of them. [...]

And I wish and command that when the said Princess Doña Juana, my dear and beloved daughter, dies, she shall be succeeded in these my kingdoms by the Infante Carlos, my grandson, her legitimate son and that of the said Don Felipe, her husband, and that he shall be king and lord of my kingdoms. [...]

And I appoint as executors and administrators of this my will and last testament the King, my lord, because of the great love I have for His Lordship and he has for me, it will be more readily executed [...]

[Codicil]

In the name of the Holy and Indivisible Trinity, Father, Son and Holy Spirit. Let all who see this codicil letter know that I, Queen Isabel, by the grace of God, Queen of Castile, León, [...].

[The Queen disposes – in seventeen chapters – among other things]: X. I also command that the powers of some reformers be examined, since, in reforming the monasteries of their kingdoms, of monks and nuns, some have exceeded their powers, and this has led to great scandal, harm and danger to their souls and consciences. And that from now on, the reformers be helped to fulfil their duties in accordance with the power attributed to them and no more.

XI. I also command that, since the Pope granted us the Islands and Mainland of the Ocean Sea, both discovered and yet to be discovered [America and the nearby islands], and since it was my intention to seek, induce and attract the peoples who inhabit them to the Catholic faith, and to send prelates, religious, clergy and other learned persons to the Islands and Mainland... to instruct the inhabitants of those lands in the Catholic faith and teach them good customs. I also beg my lord the king most affectionately, and I entrust and command my daughter, the princess, and her husband, the prince, to do so and to comply, and that this be their main goal and that they put great diligence into it, and that they do not consent or allow the Indians, neighbours and inhabitants of the Indies and the mainland, conquered and yet to be conquered, suffer any harm to their persons or property, but rather that they be treated well and justly, and if they have suffered any harm, that they remedy it and ensure that nothing exceeds what was commanded and established in the apostolic letters of said concession.

[...]

XV. I also command that twenty thousand requiem masses be said for the souls of all those who died in my service, and that they be said in churches and monasteries, wherever my executors deem it most devout, and that they give for this purpose whatever alms they deem best.

XVI. I also command that everything I now give to the servants of Queen Elizabeth, my mother, may she rest in peace, be given to each of them for life.

XVII. And I say and declare that this is my will, which I want to be valid as a codicil, and if it is not valid as a codicil, I want it to be valid as any other last will and

testament, or as best it can and should be valid. And so that this may be binding and there may be no room for doubt, I grant this letter of codicil before Gaspar Grizio, my secretary, and the witnesses who signed and sealed it with their seals; which was granted in the town of Medina del Campo, on 23 November in the year of our Saviour Jesus Christ 1504, and I signed it with my name before the witnesses and had it sealed with my seal.

I, the Queen [autograph signature and initials

Anexo V: Accepting the foreigner in a globalized world where the distance is relative

Accepting the foreigner in a globalized world where distance is “relative”.

You must write an original text, of approximately one hundred words length.

The structure must be simple and with a clear organization, dividing the text in different paragraphs.

To achieve this, write an outline with the main ideas you want to develop. You can use this questionnaire as a script:

1º What have you learned new about the new realities that surround us in today's world?

2º Do you think it is important to be aware of these new realities in order to be aware of them and to know how to adapt ourselves as committed citizens?

3º What are the positive and negative implications of travel or population movements in today 's world?

4º Is the knowledge of History important? and ¿how does this knowledge influence in making responsible and committed citizens?

5º Express your own opinion about everything you have worked on in this project. What have you learned?

The most important aim is searching among the work done in the other subjects for reliable sources and planning to express in a creative, appropriate and coherent way your understanding of the acceptance of the foreigner in a globalized world where distance is “relative”.

Now write your text on the lines below. Remember, you must write 100–130 words.

Make sure you:

- Use the appropriate linkers (e.g. First of all, Next, Finally, etc.) to describe the order of ideas.
- Write five paragraphs expressing your ideas.
- Check your spelling, grammar and punctuation.
- Check that the text contains all the information you must include.

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