

# 04\_ La ciencia y la tecnología - Science and Technology

Content Area: **World Language**  
Course(s):  
Time Period: **Full Year**  
Length: **15-20 days**  
Status: **Published**

## **General Overview, Course Description or Course Philosophy**

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### **Spanish 4 Honors**

Spanish 4 Honors is the prerequisite for Spanish 5 AP. Students will be expected to be fully immersed in the Spanish language and culture by focusing on 3 major themes: Families and Community, Science and Technology, and Contemporary Life. Students enrolled in this course should be progressing through the ACTFL (The American Council of the Teaching of Foreign Languages) Intermediate-mid level of fluency, and achieving the Intermediate High level by the end of the course. Students should use advanced Spanish vocabulary and will be assessed on speaking, listening, and writing. Throughout the course, students will also be receiving input and creating output via the three modes of communication: Interpretive, Interpersonal, and Presentational. In doing so, they will begin to master through extensive practice, all sections of the Spanish Language and Culture Advanced Placement exam.

## **OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS**

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Students will understand:

- Science and technology have evolved throughout the years and are impacting the world in many ways.
- There is a shift in etiquette due to the recent increase in cell phone and computer use.
- Even though there are many positive impacts to technology use, there are several negative impacts as well.
- Science and Technology are impacting the health field in many ways.
- The health field is very different today than it was in previous generations.
- There are many factors (religion, superstition, cultural differences) that affect the way people have received medical treatment in the past as compared to today.
- That science and technology have very large and small scale impacts on the environment.
- The environment has several components that have a direct effect on it.

Essential Questions:

- What are some of the advantages and disadvantages of science and technology advancements?
- What are some of the impacts of the advances in the fields of science and technology?

- What type of healthcare exists in Latin American countries and the US?
- Should everyone have access to healthcare?
- What are some examples of medical treatments that are evident in our contemporary life (i.e. holistic)?
- What type of technological advances in the healthcare field are easily accessible to your existing community?
- How have science and technology affected our environment?
- How has our environment benefitted from the advances in the science and technology fields?
- How have the advancements in technology affected our forms of communication?

#### Enduring Understandings:

- Scientific and technological advancements have changed our way of life.
- There will continue to be advancements in the science and technology fields.
- Access to some form of healthcare is a basic human right.
- There are many forms of medical treatment available.
- Protecting our environment is a civic duty.

#### Diversity and Inclusion

- Awareness of diversity & inclusion issues as relating to immigration, history, visual and performing arts, literature, climate, subject area content, population where appropriate in the content area.
- Awareness of political, economic, and social contributions, inclusive of all people, where appropriate to the content area.

#### Climate Change

Awareness of climate change in the target language areas of the world, immigration effects on the target culture and the students' own cultures, population trends in the target culture(s) and the students' own cultures.

### CONTENT AREA STANDARDS

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WL.IH.7.1.IH.IPERS.1	Exchange information in conversations and some discussions on a variety of familiar and some concrete topics, using connected sentences that may combine to form paragraphs and asking a variety of questions, often across time frames.
WL.IH.7.1.IH.IPERS.2	Explain preferences, opinions, and emotions and give advice on a variety of topics, using connected sentences that may combine to form paragraphs and asking a variety of questions, often across time frames.
WL.IH.7.1.IH.IPERS.4	Engage in oral and written discourse in a variety of situations that sometimes involve a complication, using connected sentences that may combine to form paragraphs. (Show consistent accuracy in the present tense and show some accuracy with other time frames.)
WL.IH.7.1.IH.IPERS.5	Ask and respond to questions and state opinions as part of a group discussion on topics and situations of a personal, academic, or social nature.

WL.IH.7.1.IH.IPRET.1	Summarize the main idea, several details, and some inferences of literary or informational texts on a range of topics.
WL.IH.7.1.IH.IPRET.3	Compare and contrast the use of verbal and non-verbal etiquette to perform a variety of functions (e.g., persuading, offering advice) in the target culture(s) and in one's own culture.
WL.IH.7.1.IH.IPRET.5	Infer the meaning of some unfamiliar words and phrases in new formal and informal contexts.
WL.IH.7.1.IH.PRSNT.1	Present detailed information orally and in writing on information gathered from culturally authentic resources, using short paragraphs and often using major time frames.
WL.IH.7.1.IH.PRSNT.4	Use language creatively in writing for a variety of purposes.
WL.IH.7.1.IH.PRSNT.5	Express viewpoints on familiar and researched topics, give reasons to support the claims, and speak and write in strings of connected sentences and some short paragraphs.

## **RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)**

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9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas

9.4.2.CI.1: Demonstrate openness to new ideas and perspectives

9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries

L.SS.9–10.1. Demonstrate command of the system and structure of the English language when writing or speaking.

L.KL.9–10.2. Apply knowledge of language to make effective choices for meaning, or style, and to comprehend more fully when reading, writing, speaking or listening.

LA.RI.11-12.5	Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
LA.RI.11-12.7	Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.
LA.W.11-12.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
LA.W.11-12.1.C	Use transitions (e.g., words, phrases, clauses) to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
LA.W.11-12.2	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
LA.W.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
LA.W.11-12.6	Use technology, including the Internet, to produce, share, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
LA.W.11-12.7	Conduct short as well as more sustained research projects to answer a question (including

	a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
LA.W.11-12.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
LA.SL.11-12.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with peers on grades 11–12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.
LA.SL.11-12.1.A	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well reasoned exchange of ideas.
LA.SL.11-12.4	Present information, findings and supporting evidence clearly, concisely, and logically. The content, organization, development, and style are appropriate to task, purpose, and audience.
LA.L.11-12.4.A	Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.
TECH.9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
TECH.9.4.12.DC.7	Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society (e.g., 6.1.12.CivicsPD.16.a).
TECH.9.4.12.GCA.1	Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others (e.g., SL.11-12.1., HS-ETS1-1, HS-ETS1-2, HS-ETS1-4, 6.3.12.GeoGI.1, 7.1.IH.IPERS.6, 7.1.IL.IPERS.7, 8.2.12.ETW.3).
TECH.9.4.12.IML.8	Evaluate media sources for point of view, bias, and motivations (e.g., NJSLSA.R6, 7.1.AL.IPRET.6).

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## **STUDENT LEARNING TARGETS**

Refer to the 'Declarative Knowledge' and 'Procedural Knowledge' sections.

Key Grammatical Concepts:

- Past participles as adjectives
- Future perfect tense
- Conditional perfect tense

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## **Procedural Knowledge**

*See below for various sections covered in this unit.*

## **Declarative Knowledge**

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*See below for various sections covered in this unit.*

## **EVIDENCE OF LEARNING**

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*Refer to the 'Formative Assessments' and 'Summative Assessments' sections.*

## **Benchmark Assessments**

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Edulastic Assessments

## **Alternate Assessments**

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- Cultural Comparison presentations
- Oral Presentations
- Multimedia Presentations
- Student Dramatizations
- Original Artwork Creations
- Modified Rubrics
- Teacher/Student Conferences

## **Formative Assessments**

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Using the three modes of communication-Interpretive, Interpersonal and Presentational

- Do now's/Exit tickets
- Homework
- Higher level thinking questions posed throughout the units.
- Interpersonal speaking activities.
- Vocabulary Activities: La ciencia y la tecnología, la salud y el medioambiente (science and technology, healthcare and the environment).
- Original compositions detailing research based learning that corresponds to these units

- Google Slides for cultural comparison presentations
- Class discussions/debates
- In class formal and informal presentations
- Original informal composition analyzing key concepts for themes of this unit.
- Original informal compositions detailing research based learning that corresponds to this unit.
- Students will create a plan for solving the most crucial issues facing the environment today and detail how they will be in place to continue the efforts put forth into tomorrow.
- Class discussions/debates

## **Summative Assessments**

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- Writing Assessment- Respond to the question: Do you think nomophobia is real?
- Argumentative Essay- How has technology evolved over the last 500, 50, 5 years? Look forward 5, 50, 500 years, what are technological advances that we might or will definitely see in the future?
- Oral Assessments - Interpersonal Speaking activities (Simulated AP conversation)
- Oral Assessments-Is it the governments responsibility to provide a level of healthcare for all? What measures are communities in Latin America and the US taking to protect the environment?
- Oral Assessments - Cultural Comparisons
- Email Responses
- Journal Entries- AP practice style journal entries as recommended by The College Board.
- Written Vocabulary Quizzes

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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Temas AP Spanish Textbook and Workbook

AP Spanish Practice Workbook

Triángulo Aprobado AP Practice Textbook

Incorporating visuals within texts

Powerpoints/Google slides/ Nearpod

Provide written and oral directions

Pairing students

Sample texts

Authentic documents

Google Apps - Jamboard, Padlet, Slides etc.

Graphic organizers

## **INTERDISCIPLINARY CONNECTIONS**

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Language Acquisition

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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[Click on link to Accommodations & Modifications](#)