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Comparing 1st and 4th Grade Curriculum of the

United States and Uruguay

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Introduction

The term *curriculum* has been discussed in literature for decades. In many countries the term has been used to describe events and things associated with movement. For instance, in Latin America, the root of the term was associated with running courses and chariot races (Smith, 1996; 2000)**.** Despite exact terminology meaning being country dependent, the general meaning of the word curriculum has been somewhat maintained. In the United States curriculum is broadly defined as the courses offered by an educational institution (Hacker, 2011). Curriculum theory and practice researchers John Kerr and Vic Kelly (1999) defined curriculum as "all the learning, which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school" (Kelly, 1999). To arrive at this description, Kerr and Kelly summarize the complications of planning curriculum, as it is not seen as a simple process (Kelly, 1999). More recently, Kelly (2009) expanded the definition to include the teaching and instruction that is offered and the purposes and objectives of the curriculum. The multiple objectives addressed in each school system contribute to this complex meaning of curriculum. While the definitions vary somewhat, the terms are all related. For the purpose of this paper, curriculum will be more specifically defined as an intended course of study and sequence of learning opportunities in formal schooling (Schmidt, W., McKnight, C., Houang, R., et al., 2001).

Although curriculum may seem straightforward, the way in which institutions conceptualize curriculum has changed over time. Today, curriculum is primarily discussed as it relates to education. This is the not only the case in the United States, but in other countries as well. One Latin American country that has undergone significant changes and made progress re-conceptualizing education policy is Uruguay. To better understand the evolution of curriculum in

the United States and other countries, it is necessary to review past and present educational

policies and examine the impact of policies on learning standards. The aims of the current project

are to a) review educational policy and curricular structure and implementation of past and

present-day curriculum of the United States and Uruguay and b) identify similarities and

differences between them in the context of children's work samples. The research questions to be

addressed by this project are:

> 1) What are the 1st and 4th grade Reading, Writing and Math learning standards of the
>
> United States?

> 2) What are the 1st and 4th grade Reading, Writing and Math learning standards of
>
> Uruguay?

> 3) What are the similarities and differences between learning standards in the United
>
> States and Uruguay?

Literature Review

The following sections contain a review of the literature on curricular policies and the structure

of and implementation of curriculum in each country.

United States

Policy. In the United States, there has been a shift in educational policy with the most

significant changes occurring over the past five decades. In the late 1900s, states were

encouraged to develop independent curricula (Alexandria, 2013, p. 2-3). The only requirement

was that the curriculum had to include some degree of content-area standards. Although this was

the case for many years, this educational approach had some weaknesses and poor outcomes. For

instance, in the late 1900s, there was a drastic decline in student performance. Another issue was that individual states' curricula had different expectations for learning outcomes. As a result of declining student performance, federal legislation was put in place to support a more directed, consistent curriculum across the United States. To address this issue, in 1994, the Federal government enacted the Elementary and Secondary Education Act (ESEA; U.S. Department of Education) and then in 2001 the No Child Left Behind Act (NCLB; U.S. Department of Education). The ESEA was established to provide funding to districts with low-income students that were struggling to increase elementary and secondary educational success. A few years later, the NCLB was implemented to minimize educational disparities and ensure that all children had access to high-quality education, irrespective of background. While the new legislation positively impacted some children, there were still concerns regarding expectations across states according to the Organization for Economic Co-operation and Development (OECD). The OECD determined that test scores from children in the United States were in the average or slightly below average range. With that, educational policies leaned toward a standards-based educational approach. Educators in the United States began to conceptualize the *Common Core State Standards Initiative* (2009) that resulted in grade-level standards to help promote success in education across all states.

The Common Core State Standards (CCSS) were created through collaboration of teachers, school chiefs, administrators, government and state commissioners, and other experts statewide. These individuals paired with the National Governors Association Center for Best Practice and the Council of Chief State School Officers throughout the process (*Common Core State Standards Initiative).* The process for developing standards included setting expectations and identifying the skills every child should attain before graduating high school with the intent

of setting them up for success post-graduation. The expectations were used to guide the content of each standard. States representatives worked together to develop a rough draft of standards that were then sent to a validation committee for review. While the final standards were officially published in 2010 (National Conference of State Legislatures), they have since been updated and new standards have been added for additional content areas. Following the original publication, each state had the opportunity to review and voluntarily adopt the standards. The CCSS provided consistency in learning outcomes across states, to prepare all students for future success for college or entering the workforce.

While not all states adopted the standards, originally, they were adopted by 46 states (World Population Review, 2020). The four states that did not adopt the standards were Virginia, Texas, Alaska, and Nebraska. While the remaining states adopted the standards, Minnesota was unique in terms of how standards were adopted, in that they adopted the English Language Arts standards, but not mathematics. Arizona, Florida, Oklahoma, Indiana, and South Carolina are no longer using the standards currently. Instead of using the common core standards, these states developed their own. The main reason for this may be related to the controversial topics between political parties and/or the way the initial standards were distributed and implemented abruptly.

Even though the CCSS was adopted in many states initially, there has been controversial disagreements upon whether the standards are beneficial to students and where implementation is feasible for teachers. Originally, the standards were given to teachers to be implemented in the classroom with a limited amount of time to plan activities and teaching techniques. The lesson plans being used prior to the standards needed to be changed. This led to educators being forced to use a restricted range of creativity for teaching styles used in the classroom. While the standards have caused concerns for teachers (e.g., insufficient planning time), the Ohio

Department of Education has provided resources and tools (e.g., networking opportunities, Universal Design, professional development) that support educators, students and families during implementation of these standards in the classroom (Ohio Department of Education, 2022).

Curricular Structure and Implementation. The CCSS are a set of high-quality academic standards that guide what K-12 students in America should know at the end of each grade level (National Conference of State Legislatures, 2014). The standards initially focused on two subject areas: English Language Arts (ELA) and Mathematics, but now there are standards for other content areas (e.g., Science, Social Studies, Technology). For the purpose of this project, Reading, Writing and Mathematics are the focus.

Standards for K-8 students are organized separately and for high school students, the standard organization is different. Instead of having standards for each grade level, grades nine and ten are paired together and grades eleven and twelve are combined. The ELA standards include skills in four strands: Reading, Writing, Speaking, and Listening and Language. Within each of the four strands, there are different topics. The strands have four topics except for Speaking and Listening, which has two. For instance, in the Reading strand, topics include Key Ideas and Details, Craft and Structure, Integration of Knowledge and Ideas, and Range of Reading and Level of Text Complexity. Specific descriptions of what should be taught within each topic at each grade level are included as standards statements. In the Reading Strand, within the topic of Key Ideas and Details, 1st graders are expected to ask and answer questions about key details in a text (Rl. 1.1). Second graders are expected to ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text (RL. 2.1). Third graders are expected to ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers (RL. 3.1). In 4th grade,

students are expected to refer to details and examples in a text when explaining what the text

says explicitly and when drawing inferences from the text (RL.4.1). Finally, fifth graders are

expected to quote accurately from a text when explaining what the text says explicitly and when

drawing inferences from the text (RL. 5.1).

When addressing the standards, teachers have the freedom to provide students with

knowledge and tools that will help them obtain their goals. The standards do not specify the

processes or strategies teachers should use to target them, but instead, allow teachers to select the

activities they will use to address specific skills (Ohio Department of Education, 2022). As each

standard goal is accomplished, students become more knowledgeable, which leads to readiness

for the next grade level. Students develop knowledge across different general and specific

subjects. For example, in the reading strand, children learn inferences, key ideas, and specific

details. The standard goals are set up for students to become critiques and question theories and

learning experiences. This allows students to fully capture and understand the material being

taught to maximize their potential in school. Although the development and structure of

educational policies in the United States has been transformed over the past few decades, the

United States continues to place strong emphasis on the importance of education nationwide.

Uruguay

Policy. Educational policies in Uruguay have advanced since the late 1800's. In 1877,

free primary education was put into effect through the Law of Common Education (K-12

Academics). This law guided the development of Uruguay's academic system that was

influenced from the French educational system and included the three levels: primary, secondary,

and university education. By the late 1950s, the three levels of education were well established,

and each had its own standards and different teaching approaches. However, years later issues

began to arise that affected education. These issues began in the late 1960s and were caused by tension in schools due to political disagreements. Student sit-ins, demonstrations, riots, and class interruptions occurred frequently, and many teachers left the profession. Because of this, academic performance and educator's expectations of students decreased greatly.

In 1973, Uruguay's government became authoritarian rule which played a significant role in the educational system. Because of this, The National Council for Education was organized to administer all three levels of education in addition to the executive branch of government. A shift in curriculum adjusted from teachers having their own standards to a restructuring of curriculum that led to teacher training. During this time, there was an increase in school enrollment. Starting in 1985, the government began to rehire all educators who left the profession earlier because of the National Administration of Public Education. This was another organization that oversaw the different levels of education, primary, secondary, and technical education, which helped gain control of educational policies. Because many teachers were rehired, a problem of too many teachers in the school systems began to arise. This created problems between educators and the government. To solve these issues, the national budget grew 2% from the following dates: 1884-1888 to be able to afford a salary for all teachers working. In addition, starting in 2007, to improve education development for Uruguayan students, the Ceibal Project was put into effect. This allows every primary school student in the school system to have a computer for learning activities. The current goal is to allow secondary students to have this advantage as well. Throughout this process, teachers and the government have worked together to ensure stronger control over the educational system.

Currently, the government has more control over educational policies in Uruguay to decrease the chances of issues occurring that affect academic performance. The articles *OECD*

Review of Policies to Improve the Effectiveness of Resource Use in Schools and S*chool*

education in Uruguay align with each other in the sense of how education policy is currently

operating. The five agencies that hold responsibility for schools in Uruguay from preschool to

post-secondary education include: ANEP (National Administration of Public Education), MEC

(The Ministry of Education and Culture), INAU (The Child and Adolescent Institute of

Uruguay), UDELAR (Institution of Tertiary Education at the University Level), and UTEC

(Institution of Tertiary Education at the University Level Specializing in technological degrees).

Each foundation plays a significant role in the educational system. Specifically, ANEP holds

authority over the control of early childhood education, pre-primary education, and

professionalism at secondary and tertiary levels. Similarly, the MEC is responsible for early

childhood education, pre-primary education, and private education. The INAU controls

accountability of educational requirements at early childhood education schools and at

Childcare/Family Centers. The UDELAR oversees tertiary education at the University level.

Likewise, UTEC shares the same responsibilities in tertiary education but while focusing on

technological degrees. While all five of these associations share responsibilities over the

educational system in Uruguay, a sixth group was created named The National Institute for

Educational Evaluation (INEED). This organization holds responsibility for assessing the quality

of education in Uruguay focusing on preschool, primary, and secondary levels. However, INEED

does not have the authority to make educational decisions alone. Although the above stated

agencies monitor education in Uruguay, current curriculum is still in the works and is still not

fully developed at all the levels of education.

   Curricular Structure and Implementation. With circular structure still being addressed,

each level of education holds authority for how implementation occurs. At the primary level

teachers decide how learning goals are structured for children and young adults to succeed post-graduation. To get a better understand how children learn the curriculum achievement progress is assessed through tests. For the secondary level, curriculum implementation is based upon subjects (content area) and the year (grade level) of the student. The Educational council, CES, decides the framework for curriculum, while the implementation is determined by the professionals teaching the subject. Although the general structure of curriculum is stated, the content in framework is established allowing teachers to decide what is best suited to teach the students. At the university level, curriculum is set up in a different way. For example, three options are available, which include diversified baccalaureate, academic character, and vocational baccalaureate. All three options are geared towards helping students reach an end goal of a future career. Curriculum is not fully established across the three levels of education. The implantation of curriculum has changed significantly but there still room for improvement.

The purposes of the current project were to review educational policy and curricular structure and implementation of present-day curriculum of the United States and Uruguay and identify similarities and differences between them in the context of children's work samples. The research questions to be addressed by this project are:

1) What are the Reading, Writing and Math learning standards for 1st and 4th grade in the United States and how many standards are there in each area?

2) What are the Reading, Writing and Math learning standards for 1st and 4th grade in the Uruguay and how many standards are there in each area?

3) What are the similarities and differences between learning standards in the United States and Uruguay?

Method

The research questions were addressed in a sequence of steps. First, a comprehensive literature review was completed to better understand educational policy and identify the learning standards of each country. The key words used in the search included several combinations of *United States* or *Uruguay / educational policy / learning standards / curriculum / curricular content / integration of knowledge.* Next, the Uruguay learning standards were obtained (Aristas, 2020) and translated then added to the Excel file containing the U.S. learning standards that was organized by content area (Reading, Writing and Math) and grade (1st and 4th). To explore similarities and differences, the standards were categorized based on the presence of a standard in one or both countries and the availability of artifacts to exemplify a standard. Finally, standards used in both U.S. and Uruguay were identified and children's work sample artifacts (personal) were collected and used as examples of selected standards (Appendix A).

Results

To answer research questions one and two regarding the Reading, Writing and Math standards for 1st and 4th grade in the United States and Uruguay, information was analyzed to determine the total number of standards for each country, grade level, and area. Curriculum for 1st grade in the U.S. included a total of 24 learning standards pertaining to Reading. Table 1 shows the Reading and Writing standards within each of four topics. In Topic 1 *Literature*, there were ten standards, in Topic 2, *Informational Text*, there were ten standards and in Topic 3, *Foundational Skills*, there were four standards. Curriculum for 1st grade in the U.S. included ten learning standards related to Writing. There was only one topic for this category called *Writing Standards*. Table 1 shows the Math curriculum standards for 1st grade in the U.S. There are 22 learning standards within four topics. In Topic 1, *Number of Operations and Algebraic Thinking,*

there were eight standards, in Topic 2, *Number of Operations and Numbers in Base Ten,* there were six standards, in Topic 3 *Number of Measurement and Data,* there were five standards, and lastly in Topic 4, *Number of Geometry,* there were three standards. Math standards within each of the four topics are shown in Table 1. Across the three content areas, Reading, Writing, and Math, a total of 56 learning standards are assessed for 1st grade in the United States.

Curriculum for 4th grade in the U.S. included 24 learning standards pertaining to Reading. In Topic 1, *Literature*, there were ten standards, in Topic 2, *Informational Text*, there were ten standards and in Topic 3, *Foundational Skills*, there were two standards. Table 3 shows the Reading standards within each of the three topics. Curriculum for 4th grade in the U.S. included ten learning standards related to Writing. There was only one topic for this category named *Writing Standards*. Table 3 shows the actual Writing standards within the topic. Curriculum for 4th grade in the U.S. included 22 learning standards belonging to Math. In Topic 1, *Number of Operations and Algebraic Thinking,* there were five standards, in Topic 2, *Number of Operations and Numbers in Base Ten,* there were eight standards, in Topic 3, *Number of Measurement and Data,* there were seven standards, in Topic 4, *Number of Geometry,* there were two standards, and lastly in Topic 5, *Numbers and Operations-Fractions,* there was ten. Table 3 shows the actual Math standards with each of the five topics. Across the three content areas, Reading, Writing, and Math, a total of 64 learning standards are assessed for 4th grade in the United States.

Curriculum for 1st grade in Uruguay included a total of 23 learning standards pertaining to Reading. In Topic 1, *Literature*, there were eight standards, in Topic 2, *Informational Text*, there were nine standards and in Topic 3, *Foundational Skills*, there were six standards. Table 2 shows the actual Reading standards within each of the three topics. Curriculum for 1st grade in

the Uruguay included nine learning standards related to Writing. There was only one topic for this category named *Writing Standards*. Table 2 shows the actual Writing standards within the topic. Curriculum for 1st grade in the Uruguay included 27 learning standards belonging to Math. In Topic 1, *Number of Operations and Algebraic Thinking,* there were ten standards, in Topic 2, *Number of Operations and Numbers in Base Ten,* there were eight standards, in Topic 3, *Number of Measurement and Data,* there were four standards, and lastly in Topic 4, *Number of Geometry,* there were five standards. Table 2 shows the actual Math standards with each of the four topics. Across the three content areas, Reading, Writing, and Math, a total of 59 learning standards are assessed for 1st grade in Uruguay.

Curriculum for 4th grade in Uruguay included 17 learning standards pertaining to Reading. In Topic 1, *Literature*, there were eight standards, in Topic 2, *Informational Text*, there were seven standards and in Topic 3, *Foundational Skills*, there were two standards. Table 4 shows the actual Reading standards within each of the three topics. Curriculum for 4th grade in Uruguay included eight learning standards related to Writing. There was only one topic for this category named *Writing Standards*. Table 4 shows the actual Writing standards within the topic. Curriculum for 4th grade in the Uruguay included 24 learning standards belonging to Math. In Topic 1, *Number of Operations and Algebraic Thinking,* there were four standards, in Topic 2, *Number of Operations and Numbers in Base ten,* there were nine standards, in Topic 3, *Number of Measurement and Data,* there were five standards, in Topic 4, *Number of Geometry,* there was one standard, and lastly in Topic 5, *Numbers and Operations-Fractions,* there were five standards. Table 4 shows the Math standards within each of the five topics. Across the three content areas, Reading, Writing, and Math, a total of 49 learning standards are assessed for 4th grade in Uruguay.

To answer research question three, similarities and differences were examined. With regard to similarities, countries were similar in the name and number of topics in each of the three areas as well as number of standards. Similarities are discussed herein by grade level. For 1st grade, both countries shared eight topics including *Literature, Informational Text, Foundational Skills, Writing, Operations and Algebraic Thinking, Numbers and Operations in Base Ten, Measurement and Data*, and *Geometry*. For 4th Grade, there were nine shared topics: *Literature, Informational Text, Foundational Skills, Writing, Operations and Algebraic Thinking, Numbers and Operations in Base Ten, Numbers and Operations-Fractions, Measurement and Data*, and *Geometry*. The number of standards within each topic across both countries were not similar for 1st grade; however, there were three similarities in number of standards for 4th grade topics. In the topic *Foundational Skills* there were two standards, in *Numbers and Base Ten* there were eight standards and in *Geometry*, there were two standards in both countries' curriculums. Table 5 shows the unique and shared standards of the countries by topic for 1st grade. Unique and shared standards for 4th grade are shown in Table 6 followed by examples of children's work samples corresponding to 1st and 4th grade shared standards (Appendix A).

Differences were primarily observed in the overall number of standards and actual standards in each grade with Uruguay having fewer standards in Reading and Writing but more in Math. Whereas the United States curriculum had ten 1st grade standards in *Literature*, there were eight in Uruguay. The United States curriculum had ten 1st grade standards in *Informational Text*, but there were nine in Uruguay. For 1st grade standards in *Foundational Skills,* the U.S. had four while Uruguay had six. Whereas the U.S. had ten 1st grade *Writing Standards,* there were nine in Uruguay. For *Operations and Algebraic Thinking* for 1st grade, U.S. had eight standards, while Uruguay had ten standards. The U.S. had six 1st grade standards in *Numbers and Base Ten*,

Uruguay had eight. Whereas the U.S. had five 1st grade standards in *Measurement and Data*, there were four in Uruguay. Lastly, for *Geometry* in 1st grade, there were three standards in the U.S. while five standards in Uruguay. For 4th grade *Literature*, the U.S. had ten standards, while Uruguay had eight. The U.S. had ten 4th grade standards in *Informational Text*, while Uruguay had seven standards. Whereas the U.S. had ten 4th grade *Writing standards*, there were eight in Uruguay. In *Operations and Algebraic Thinking* for 4th grade, the U.S. had five standards, while Uruguay had four standards. The U.S. had ten 4th grade standards in *Numbers and Operations-Fractions*, while Uruguay had five. Lastly, whereas the U.S. had seven 4th grade standards for *Measurement and Data*, there were five in Uruguay. Table 5 shows the unique and shared standards of the countries by topic for 1st grade, and the unique and shared actual standards for 4th grade are shown in Table 6.

Discussion

The purposes of this project were to examine the history of curriculum development and implementation in the United States and Uruguay and identify similarities and differences in the curricular learning standards for 1st and 4th graders in the countries. The review of the literature and sources yielded interesting similarities and differences. It was interesting that both countries place a strong emphasis on education countrywide. When looking at educational history, Uruguay struggled with educational structure more than the U.S. did in the past, with many conflicts among students, educators, and the government. The United States, over the last several decades has had some type of structure in the material that needs to be taught to students, while Uruguay left the structure of education up to the educators teaching the material. Currently, both countries have revised and upgraded educational policies to yield individuals that are educated

and well-rounded. Because of this, having structure leads to keeping up with other countries who are advancing in education as well.

In addition, several similarities were noted within the topics. In the two topics *Literature* and *Informational Text*, a standard for both included "Ask and answer questions about key details in a text". Having this standard within both topics suggests the significance of 1st graders mastering this skill. This standard could potentially be a foundational skill for other grade level standards. For Uruguay, it was interesting that the learning standards for Math appeared more advanced. For instance, in 1st grade, students learn multiplication and division which result in Uruguay students being better prepared for higher level math at an early age relative to student in the U.S. It may be the case then that children and young adults are more prepared for advanced education at a college level due to having more practice with challenging concepts. Thirdly, there were significantly more shared standards than unique standards. It was interesting to note how many standards between the two countries were the exactly the same.

One limitation to this work is the difficulty accessing past and current curriculum standards. Originally, this study's aim was to examine, past and current curriculum for kindergarten through 5th grade in both U.S. and Uruguay. Unfortunately, this could not be accomplished. The difficulty accessing past curriculum in the U.S. and the extremely restricted access to Uruguay's past curriculum and current curriculum for the other grade created the need modify the aims of the present work. Although this study has drastically changed since the beginning of the semester, this research is still significant and can be applied to my field of Communications Sciences and Disorders. Having a desire to work in the school system post-graduation and understanding the current learning standards in the U.S. will help with my occupation later in life. Even though there were limitations, future research can still be

implemented to expand upon this work. One way to relieve limitations would be to establish

connections with educators or researchers in Uruguay to gain access to all grade level standards

in Uruguay. In addition to this, having insight to early education such as pre-school standards

could help with the process of knowing when certain foundational skills develop for children in

each of the countries. Throughout this project, I have learned writing skills that have improved

since the beginning of the semester and research methods. These new skills will help me as I

continue my education at the Graduate Level. Overall, I am grateful to have had the opportunity

to do this project under the direction of Dr. Virginia Dubasik and Dr. Judith May.

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Table 1

Reading, Writing, and Math Standards for first graders for the U.S.

Topic	Standard
Literature	
RL.1.1	Ask and answer questions about key details in a text.
RL.1.2	Analyze literary text development. a. Demonstrate understanding of the lesson. b. Retell stories, including key details.
RL.1.3	Describe characters, settings, and major events in a story, using key details.
RL.1.4	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
RL.1.5	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.
RL. 1.6	Identify who is telling the story at various points in a text.
RL. 1.7	Use illustrations and details in a story to describe its characters, setting, or events.
RL. 1.8	(Not applicable to literature)
RL. 1.9	Compare and contrast the adventures and experiences of characters in stories.
RL. 1.10	With prompting and support, read prose and poetry of appropriate complexity for grade 1. Activate prior knowledge and draw on previous experiences in order to make text-to-self or text-to text connections and comparisons.
Informational Text	
RI. 1.1	Ask and answer questions about key details in a text.
RI. 1.2	Analyze informational text development. a. Identify the main topic. b. Retell key details of a text.
RI. 1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI. 1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
RI. 1.5	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
RI. 1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
RI. 1.7	Use the illustrations and details in a text to describe its key ideas.
RI. 1.8	Identify the reasons an author gives to support points in a text.

RI. 1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
RI. 1.10	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).

Foundational Skills

RF. 1.1	Demonstrate understanding of the organization and basic features of print by recognizing the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
RF. 1.2	Demonstrate understanding of spoken words, syllables, and phonemes (sounds). a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending phonemes, including consonant blends. c. Isolate and pronounce initial, medial vowel, and final phonemes in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of individual phonemes.
RF. 1.3	Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.
RF. 1.4	Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.

Writing Standards

W. 1.1	Write opinion pieces that introduce the topic or name the book being written about, express an opinion, supply a reason for the opinion, and provide some sense of closure.
W. 1.2	Write informative/explanatory texts that name a topic, supply some facts about the topic, and provide some sense of closure.
W. 1.3	Write narratives to recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
W. 1.4	(Begins in grade 3)

W. 1.5	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
W. 1.6	With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
W. 1.7	Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).
W. 1.8	With guidance and support from adults, recall information from experiences or gather information.
W. 1.9	(Begins in grade 4)
W. 1.10	(Begins in grade 3)
Operations and Algebraic Thinking	
1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. See Table 1, page 95.
1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)
1.OA.3	Apply properties of operations as strategies to add and subtract. For example, if $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known (Commutative Property of Addition); to add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ (Associative Property of Addition). Students need not use formal terms for these properties.
1.OA.4	Understand subtraction as an unknown addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.
1.OA.5	Relate counting to addition and subtraction, e.g., by counting on 2 to add 2.
1.OA.6	Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include counting on; making ten, e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$; decomposing a number leading to a ten, e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$; using the relationship between addition and subtraction, e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$; and creating equivalent but easier or known sums, e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$.

1.OA.7	Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + = 11$, $5 = - 3$, $6 + 6 =$
Number of Operations and numbers in Base Ten	
1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written number.
1.NBT.2	Understand that the two digits of a two digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones - called a "ten;" the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens.
1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$
1.NBT.4	Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones.
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning us.
1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Number Measurement and Data	
1.MD.1	Work with time and money.

1.MD.2	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
1.MD.3	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole.
1.MD.4	Work with time and money. a. Tell and write time in hours and half-hours using analog and digital clocks. b. Identify pennies and dimes by name and value.
1.MD.5	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
Number of Geometry	
1.G.1	Distinguish between defining attributes, e.g., triangles are closed and three-sided, versus non defining attributes, e.g., color, orientation, overall size; build and draw shapes to possess defining attributes.
1.G.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as "right rectangular prism."
1.G.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares in real-world contexts. Understand for these examples that decomposing into more equal shares creates smaller shares.

Table 2

Reading, Writing and Math Standards for first graders in Uruguay

Topic	Standard
Literature	
RL.1.1	Ask and answer questions about key details in a text.

RL. 1.2	Analyze literary text development. a. Demonstrate understanding of the lesson. b. Retell stories, including key details.
RL. 1.3	Describe characters, settings, and major events in a story, using key details.
RL. 1.6	Identify who is telling the story at various points in a text.
RL. 1.7	Use illustrations and details in a story to describe its characters, setting, or events.
RL. 1.8	(Not applicable to literature)
RL. 1.9	Compare and contrast the adventures and experiences of characters in stories.
RL. 1.10	With prompting and support, read prose and poetry of appropriate complexity for grade 1. Activate prior knowledge and draw on previous experiences to make text-to-self or text-to text connections and comparisons.
Informational Text	
RI. 1.1	Ask and answer questions about key details in a text.
RI. 1.2	Analyze informational text development. a. Identify the main topic. b. Retell key details of a text.
RI. 1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI. 1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
RI. 1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
RI. 1.7	Use the illustrations and details in a text to describe its key ideas.
RI. 1.8	Identify the reasons an author gives to support points in a text.
RI. 1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
RI. 1.10	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
Foundational Skills	
RF. 1.1	Demonstrate understanding of the organization and basic features of print by recognizing the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
RF. 1.2	Demonstrate understanding of spoken words, syllables, and phonemes (sounds). a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending phonemes, including consonant blends. c. Isolate and pronounce initial, medial vowel, and final phonemes in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of individual phonemes.
RF. 1.3	Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -

	e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.
RF. 1.4	Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final - e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.
RF. 1.5	Recognizes Pronouns.
RF. 1.6	Recognizes Verb Forms.
Writing Standards	
W. 1.1	Write opinion pieces that introduce the topic or name the book being written about, express an opinion, supply a reason for the opinion, and provide some sense of closure.
W. 1.2	Write informative/explanatory texts that name a topic, supply some facts about the topic, and provide some sense of closure.
W. 1.3	Write narratives to recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.
W. 1.4	(Begins in grade 3)
W. 1.5	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.
W. 1.6	With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
W. 1.8	With guidance and support from adults, recall information from experiences or gather information.
W. 1.9	(Begins in grade 4)
W. 1.10	(Begins in grade 3)
Math	
Operations and Algebraic Thinking	

1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. See Table 1, page 95.
1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)
1.OA.3	Apply properties of operations as strategies to add and subtract. For example, if $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known (Commutative Property of Addition); to add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ (Associative Property of Addition). Students need not use formal terms for these properties.
1.OA.5	Relate counting to addition and subtraction, e.g., by counting on 2 to add 2.
1.OA.6	Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include counting on; making ten, e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$; decomposing a number leading to a ten, e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$; using the relationship between addition and subtraction, e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$; and creating equivalent but easier or known sums, e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$.
1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
1.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + \_ = 11$, $5 = \_ - 3$, $6 + 6 = \_$
1.OA.9	Solve Multiplication and Division Problems.
1.OA.10	Identify the relationship in integer division and exact division.
1.OA.11	Recognize and obtain multiples and divisors.
Number of Operations and numbers in Base Ten	
1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written number.

1.NBT.2	Understand that the two digits of a two digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones - called a "ten;" the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens.
1.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =
1.NBT.4	Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones.
1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning us.
1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
1.NBT.7	Operate and solve situations with powers in N, Z and Q.
1.NBT.8	Solve situations with powers and rooting.
Number Measurement and Data	
1.MD.2	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
1.MD.3	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole.
1.MD.5	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
1.MD.6	Statistically collect and organize statistical data by choosing the type of format (graph, table, infographic)

Number of Geometry	
1.G.1	Distinguish between defining attributes, e.g., triangles are closed and three-sided, versus non defining attributes, e.g., color, orientation, overall size; build and draw shapes to possess defining attributes.
1.G.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as "right rectangular prism."
1.G.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares in real-world contexts. Understand for these examples that decomposing into more equal shares creates smaller shares.
1.G.4	Solve situations with the calculation of perimeters, area, and volume.
1.G.5	Use Pythagoras Theorem.

Table 3

Reading, Writing, and Math Standards for fourth graders in US

Reading and Writing	Standard
Literature	
RL.4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
RL. 4.2	Analyze literary text development. a. Determine a theme of a story, drama, or poem from details in the text. b. Summarize the text, incorporating a theme determined from details in the text.
RL. 4.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions.
RL. 4.4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).

RL. 4.5	Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.
RL. 4.6	Explain the differences in the point(s) of view in a text and different perspectives of the characters.
RL. 4.7	Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.
RL. 4.8	(Not applicable to literature)
RL. 4.9	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.
RL. 4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. Activate prior knowledge and draw on previous experiences in order to make text-to-self or text-to-text connections and comparisons.
Informational Text	
RI. 4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
RI. 4.2	Analyze informational text development. a. Determine the main idea of a text and explain how it is supported by key details. b. Provide a summary of the text that includes the main idea and key details, as well as other important information.
RI. 4.3	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
RI. 4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
RI. 4.5	Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
RI. 4.6	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in perspective and the information provided.
RI. 4.7	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
RI. 4.8	Explain how an author uses evidence to support particular points in a text.
RI. 4.9	Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

RI. 4.10	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Foundational Skills

RF. 4.1	Know and apply grade-level phonics and word analysis skills in decoding words by using combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
RF. 4.2	Read with sufficient accuracy and fluency to support comprehension. a. Read grade-level text with purpose and understanding. b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

W. 4.1	Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition). d. Provide a concluding statement or section related to the opinion presented.
W. 4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia to aid comprehension, if needed. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.
W. 4.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.

W. 4.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
W. 4.5	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4.)
W. 4.6	With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others, while demonstrating sufficient command of keyboarding skills.
W. 4.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.
W. 4.8	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.
W. 4.9	Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). b. Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").
W. 4.10	Write routinely over extended time frames time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
Operations and Algebraic Thinking	
4.OA.1	Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
4.OA.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. See Table 2, page 96. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)
4.OA.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

4.OA.4	Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.
4.OA.5	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.
Numbers and Operations in Base Ten	
4.NBT.1	Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000.
4.NBT.2	Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000. 4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right by applying concepts of place value, multiplication, or division.
4.NBT.3	Read and write multi-digit whole numbers using standard form, word form, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.
4.NBT.4	Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers less than or equal to 1,000,000.
4.NBT.5	Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers less than or equal to 1,000,000.
4.NBT.6	Fluently add and subtract multi-digit whole numbers using a standard algorithm.
4.NBT.7	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
4.NBT.8	Find whole-number quotients and remainders with up to four-digit dividends and one digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
Numbers and Operations- Fractions	
4.NF.1	Extend understanding of fraction equivalence and ordering limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

4.NF.2	Explain why a fraction a /b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
4.NF.3	such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =
4.NF.4	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. (Fractions need not be simplified.)
4.NF.5	Understand a fraction a/b with a > 1 as a sum of fractions 1/b . a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8. c. Add and subtract mixed numbers with denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4.NF.6	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction a/b as a multiple of 1/b . For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4), or 5/4 = 1/4 + 1/4 + 1/4 + 1/4 + 1/4. b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.) c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?
4.NF.7	Understand decimal notation for fractions, and compare decimal fractions limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
4.NF.8	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100. In general, students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators, but addition and subtraction with unlike denominators is not a requirement at this grade.
4.NF.9	Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

4.NF.10	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =
Measurement and Data	
4.MD.1	Know relative sizes of the metric measurement units within one system of units. Metric units include kilometer, meter, centimeter, and millimeter; kilogram and gram; and liter and milliliter. Express a larger measurement unit in terms of a smaller unit. Record measurement conversions in a two-column table. For example, express the length of a 4-meter rope in centimeters. Because 1 meter is 100 times as long as a 1 centimeter, a two-column table of meters and centimeters includes the number pairs 1 and 100, 2 and 200, 3 and 300.
4.MD.2	Solve real-world problems involving money, time, and metric measurement. a. Using models, add and subtract money and express the answer in decimal notation. b. Using number line diagrams, clocks, or other models, add and subtract intervals of time in hours and minutes. c. Add, subtract, and multiply whole numbers to solve metric measurement problems involving distances, liquid volumes, and masses of objects.
4.MD.3	Develop efficient strategies to determine the area and perimeter of rectangles in real-world situations and mathematical problems. For example, given the total area and one side length of a rectangle, solve for the unknown factor, and given two adjacent side lengths of a rectangle, find the perimeter.
4.MD.4	Display and interpret data in graphs (picture graphs, bar graphs, and line plots) to solve problems using numbers and operations for this grade.
4.MD.5	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. a. Understand an angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. b. Understanding an angle that turns through n one degree angles is said to have an angle measure of n degrees.
4.MD.6	Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
4.MD.7	Recognize angle measure as additive. When an angle is decomposed into non overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.
Geometry	
4.G.1	Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

4.G.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.

Table 4

Reading, Writing, and Math Standards for fourth graders in Uruguay

Reading and Writing	Standard
Literature	
RL.4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
RL. 4.2	Analyze literary text development. a. Determine a theme of a story, drama, or poem from details in the text. b. Summarize the text, incorporating a theme determined from details in the text.
RL. 4.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions.
RL. 4.4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).
RL. 4.8	(Not applicable to literature)
RL. 4.9	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.
RL. 4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. Activate prior knowledge and draw on previous experiences in order to make text-to-self or text-to-text connections and comparisons.
RL. 4.11	Identify polyphony in narrative texts and explanatory.
Informational Text	
RI. 4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
RI. 4.2	Analyze informational text development. a. Determine the main idea of a text and explain how it is supported by key details. b. Provide a summary of the text that includes the main idea and key details, as well as other important information.

RI. 4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
RI. 4.5	Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
RI. 4.7	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
RI. 4.8	Explain how an author uses evidence to support particular points in a text.
RI. 4.10	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Foundational Skills

RF. 4.1	Know and apply grade-level phonics and word analysis skills in decoding words by using combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
RF. 4.2	Read with sufficient accuracy and fluency to support comprehension. a. Read grade-level text with purpose and understanding. b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards

W. 4.1	Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition). d. Provide a concluding statement or section related to the opinion presented.
W. 4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia to aid comprehension, if needed. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.

W. 4.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.
W. 4.5	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 4.)
W. 4.6	With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others, while demonstrating sufficient command of keyboarding skills.
W. 4.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.
W. 4.8	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.
W. 4.10	Write routinely over extended time frames time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
Operations and Algebraic Thinking	
4.OA.1	Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
4.OA.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. See Table 2, page 96. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)
4.OA.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

4.OA.4	Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.
Numbers and Operations in Base Ten	
4.NBT.1	Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000.
4.NBT.2	Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000. 4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right by applying concepts of place value, multiplication, or division.
4.NBT.3	Read and write multi-digit whole numbers using standard form, word form, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.
4.NBT.4	Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers less than or equal to 1,000,000.
4.NBT.5	Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers less than or equal to 1,000,000.
4.NBT.7	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
4.NBT.8	Find whole-number quotients and remainders with up to four-digit dividends and one digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
4.NBT.9	Recognizes non-positional additive numbering system (Roman Numerals).
Numbers and Operations-Fractions	
4.NF.1	Extend understanding of fraction equivalence and ordering limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
4.NF.4	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. (Fractions need not be simplified.)

4.NF.7	Understand decimal notation for fractions, and compare decimal fractions limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
4.NF.9	Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
4.NF.10	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =
Measurement and Data	
4.MD.1	Know relative sizes of the metric measurement units within one system of units. Metric units include kilometer, meter, centimeter, and millimeter; kilogram and gram; and liter and milliliter. Express a larger measurement unit in terms of a smaller unit. Record measurement conversions in a two-column table. For example, express the length of a 4-meter rope in centimeters. Because 1 meter is 100 times as long as a 1 centimeter, a two-column table of meters and centimeters includes the number pairs 1 and 100, 2 and 200, 3 and 300.
4.MD.3	Develop efficient strategies to determine the area and perimeter of rectangles in real-world situations and mathematical problems. For example, given the total area and one side length of a rectangle, solve for the unknown factor, and given two adjacent side lengths of a rectangle, find the perimeter.
4.MD.4	Display and interpret data in graphs (picture graphs, bar graphs, and line plots) to solve problems using numbers and operations for this grade.
4.MD.5	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. a. Understand an angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. b. Understanding an angle that turns through n one degree angles is said to have an angle measure of n degrees.
4.MD.8	Interpret the use of a ruler.
Geometry	
4.G.1	Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
4.G.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.

Table 5

Unique and Shared Standards for each United States and Uruguay for 1st Grade

United States	Both	Uruguay
Literature: • Identify words and phrases in stories or poems that suggest feelings or appeal to the senses • Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. Informational Text: • Know and use various text features (e.g., headings, tables of contents,	Literature: • Ask and answer questions about key details in a text. • Analyze literary text development. a. Demonstrate understanding of the lesson. b. Retell stories, including key details. • Describe characters, settings, and major events in a story, using key details. • Identify who is telling the story at various points in a text. • Use illustrations and details in a story to describe its characters, setting, or events. • Compare and contrast the adventures and experiences of characters in stories. Informational Text: • Ask and answer questions about key details in a text. • Analyze informational text development. a. Identify the main topic. b. Retell key details of a text. • Describe the connection between two individuals, events, ideas, or pieces of information in a text. • Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. • Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. • Use the illustrations and details in a text to describe its key ideas. • Identify the reasons an author gives to support points in a text. • Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). Foundations Skills: • Demonstrate understanding of the organization and basic features of print by recognizing the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).	Foundational Skills: • Recognizes Pronouns • Recognizes Verb Forms Operations and Algebraic Thinking: • Solve Multiplication and Division Problems • Identify the relationship in integer division and exact division • Recognize and obtain multiples and divisors Numbers and Operations in Base Ten: • Operate and solve situations

glossaries, electronic menus, icons) to locate key facts or information in a text.

Writing Standards:

- Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).

Operations and Algebraic Thinking:

- Understand subtraction as an unknown addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.

- Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.

Writing Standards:

- Write opinion pieces that introduce the topic or name the book being written about, express an opinion, supply a reason for the opinion, and provide some sense of closure
- Write informative/explanatory texts that name a topic, supply some facts about the topic, and provide some sense of closure.
- Write narratives to recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

Operations and Algebraic Thinking:

- Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem
- Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem.
- Apply properties of operations as strategies to add and subtract. For example, if $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known (Commutative Property of Addition); to add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ (Associative Property of Addition). Students need not use formal terms for these properties.
- Relate counting to addition and subtraction, e.g., by counting on 2 to add 2.
- Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include counting on; making ten, e.g., $8 + 6 =$

with powers in N, Z and Q

- Solve situations with powers and rooting

Measurement and Data:

- Statistically collect and organize statistical data by choosing the type of format (graph, table, infographic)

Geometry:

- Solve situations with the calculation of perimeters, area, and volume
- Use Pythagoras Theorem

Measurement and Data:
- Work with time and money.
- Work with time and money. a. Tell and write time in hours and half-hours using analog and digital clocks. b. Identify pennies and dimes by name and value.

$8 + 2 + 4 = 10 + 4 = 14$; decomposing a number leading to a ten, e.g., $13 – 4 = 13 – 3 – 1 = 10 – 1 = 9$; using the relationship between addition and subtraction, e.g., knowing that $8 + 4 = 12$, one knows $12 – 8 = 4$; and creating equivalent but easier or known sums, e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$.

- Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 – 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.
- Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + = 11$, $5 = – 3$

Numbers and Operations in Base Ten:
- Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written number
- Understand that the two digits of a two digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones - called a "ten;" the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens
- Add within 100, including adding a two-digit number and a one-digit number and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones
- Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Measurement and Data:
- Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length

measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.

- Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Geometry:

- Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as "right rectangular prism."
- Distinguish between defining attributes, e.g., triangles are closed and three-sided, versus non defining attributes, e.g., color, orientation, overall size; build and draw shapes to possess defining attributes.
- Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares in real-world contexts. Understand for these examples that decomposing into more equal shares creates smaller shares.

Table 6

Unique and Shared Standards for each United States and Uruguay for 4th Grade

United States	Both	Uruguay
Literature: • Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. • Explain the differences in the point(s) of view in a text and different perspectives of the characters. • Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. Informational Text: • Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text,	Literature: • Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. • Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions • Analyze literary text development. a. Determine a theme of a story, drama, or poem from details in the text. b. Summarize the text, incorporating a theme determined from details in the text. • Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). • Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. Informational Text:	Literature: • Identify polyphony in narrative texts and explanatory Numbers and Operations in Base Ten: • Recognizes non-positional additive numbering system (Roman Numerals) Measurement and Data: • Interpret the use of a ruler

including what happened and why, based on specific information in the text.

- Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in perspective and the information provided.
- Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

  Writing Standards:

- Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
- Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). b. Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- Analyze informational text development. a. Determine the main idea of a text and explain how it is supported by key details. b. Provide a summary of the text that includes the main idea and key details, as well as other important information.
- Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.
- Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.
- Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- Explain how an author uses evidence to support particular points in a text.

Foundational Skills:

- Know and apply grade-level phonics and word analysis skills in decoding words by using combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Writing Standards:

uses reasons and evidence to support particular points in a text"). Operations and Algebraic Thinking:

- Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

Numbers and Operations in Base Ten:

- Fluently add and subtract multi-digit whole numbers using a standard algorithm.

Numbers and Operations-Fractions:

- Explain why a fraction a /b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
- Compare two fractions with different numerators and different denominators, e.g., by creating

- Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition). d. Provide a concluding statement or section related to the opinion presented.
- Write informative/explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia to aid comprehension, if needed. b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. c. Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Provide a concluding statement or section related to the information or explanation presented.
- Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds

common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =

- Understand a fraction a/b with a > 1 as a sum of fractions 1/b . a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8. c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like

naturally. b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.

Operations and Algebraic Thinking:

- Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations
- Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. See Table 2, page 96. Drawings need not show details, but should show the mathematics in the problem.
- Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

denominators, e.g., by using visual fraction models and equations to represent the problem.

- Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction a/b as a multiple of 1/b . For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4), or 5/4 = 1/4 + 1/4 + 1/4 + 1/4 + 1/4. b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.) c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?

- Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.

Numbers and Operations in Base Ten:

- Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000.

- Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000. 4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right by applying concepts of place value, multiplication, or division.

- Read and write multi-digit whole numbers using standard form, word form, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.

- Use place value understanding to round multidigit whole numbers to any place through 1,000,000.

- Use place value understanding and properties of operations to perform multi-digit arithmetic with whole numbers less than or equal to 1,000,000.

- Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100. In general, students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators, but addition and subtraction with unlike denominators is not a requirement at this grade.

Measurement and Data:

- Solve real-world problems involving money, time, and metric measurement. a. Using models, add and subtract money and express the answer in decimal notation. b. Using number line diagrams, clocks, or other models, add and subtract intervals of time in hours and minutes. c. Add, subtract, and multiply whole numbers to solve metric measurement problems involving distances, liquid volumes, and masses of objects
- Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

- Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- Find whole-number quotients and remainders with up to four-digit dividends and onedigit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Numbers and Operations-Fractions:

- Extend understanding of fraction equivalence and ordering limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. (Fractions need not be simplified.)
- Understand decimal notation for fractions, and compare decimal fractions limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
- Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram

- Recognize angle measure as additive. When an angle is decomposed into non overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

- Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =

Measurement and Data:

- Know relative sizes of the metric measurement units within one system of units. Metric units include kilometer, meter, centimeter, and millimeter; kilogram and gram; and liter and milliliter. Express a larger measurement unit in terms of a smaller unit. Record measurement conversions in a two-column table. For example, express the length of a 4-meter rope in centimeters.

- Develop efficient strategies to determine the area and perimeter of rectangles in real-world situations and mathematical problems. For example, given the total area and one side length of a rectangle, solve for the unknown factor, and given two adjacent side lengths of a rectangle, find the perimeter

- Display and interpret data in graphs (picture graphs, bar graphs, and line plots) to solve problems using numbers and operations for this grade.

- Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. a. Understand an angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc

between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. b. Understand an angle that turns through n one degree angles is said to have an angle measure of n degrees.

Geometry:

- Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.

Appendix A
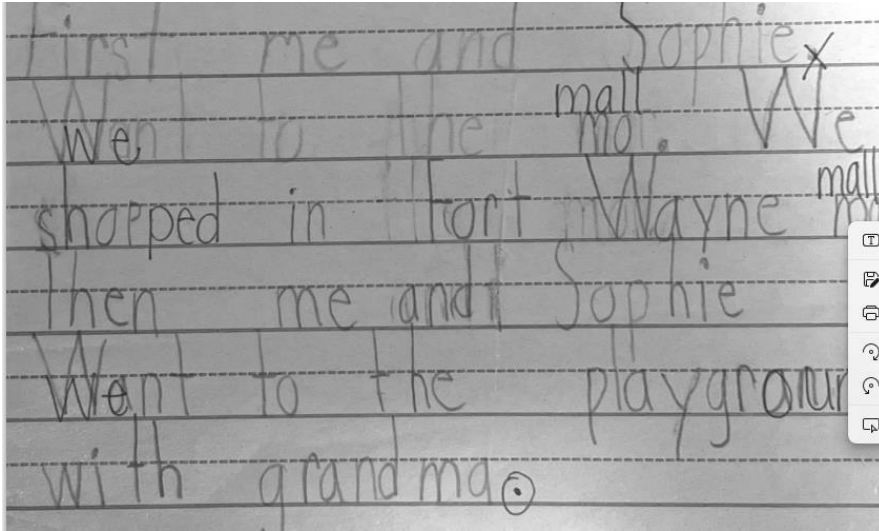
Examples of Child Work Samples from the U.S. and Uruguay Corresponding to Selected Shared Standards

1ˢᵗ Grade
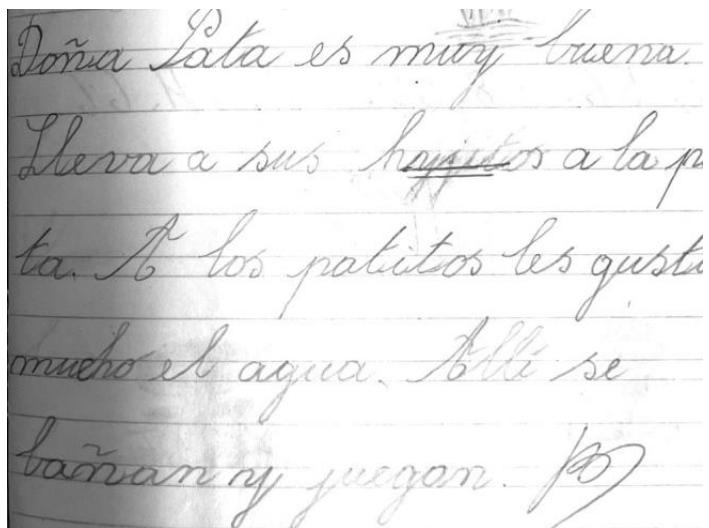
Demonstrate understanding of the organization and basic features of print by recognizing the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
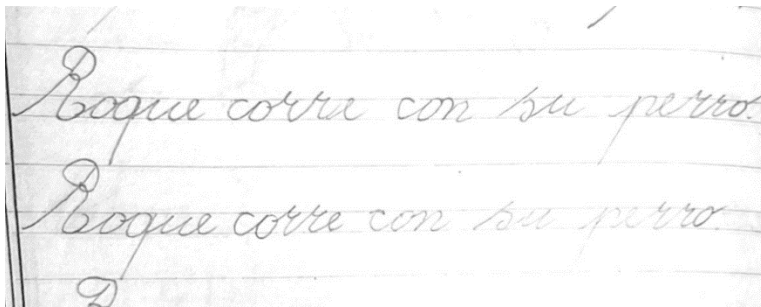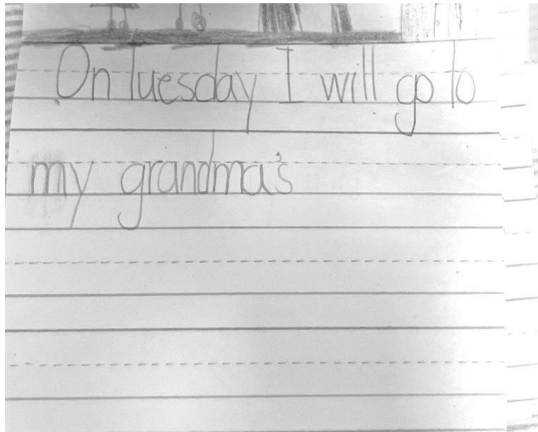
Write informative/explanatory texts that name a topic, supply some facts about the topic, and provide some sense of closure.

First me and Sophie
went to the mall. We
shopped in Fort Wayne mall
Then me and Sophie
Went to the playground
with grandma.
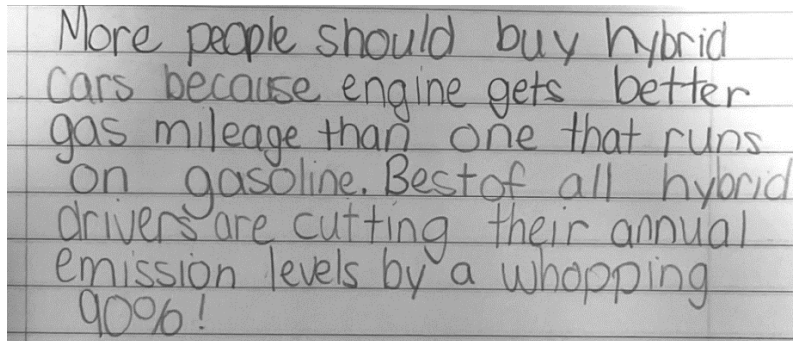
Doña Pata es muy buena.
Lleva a sus hijitos a la p
ta. A los patitos les gusta
mucho el agua. Allí se
bañan y juegan.

Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10.
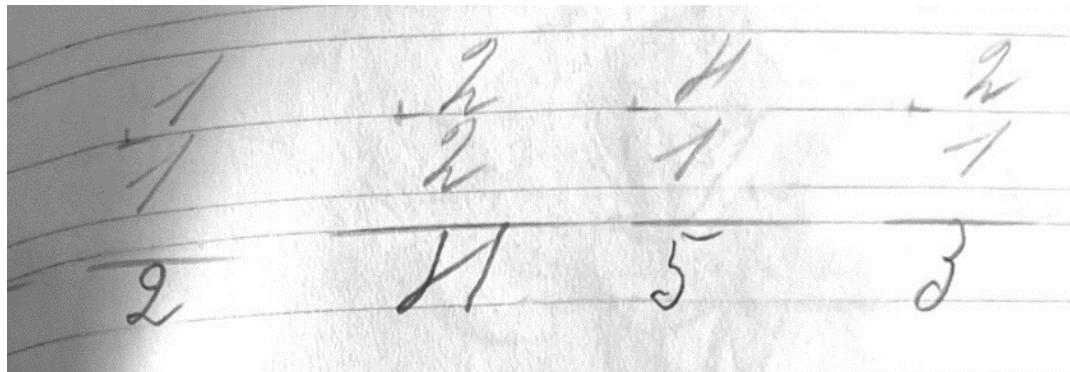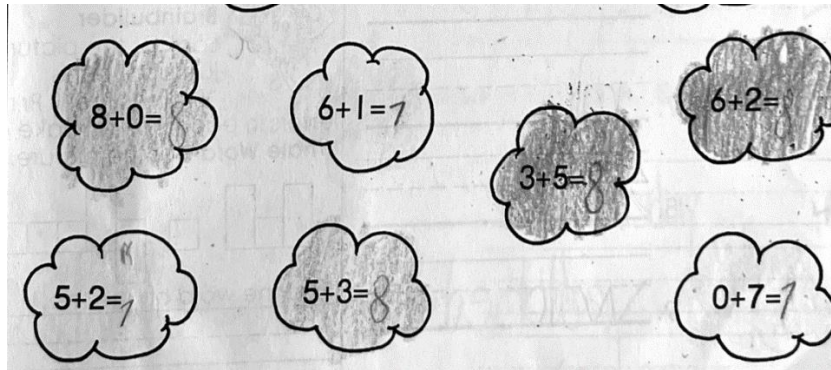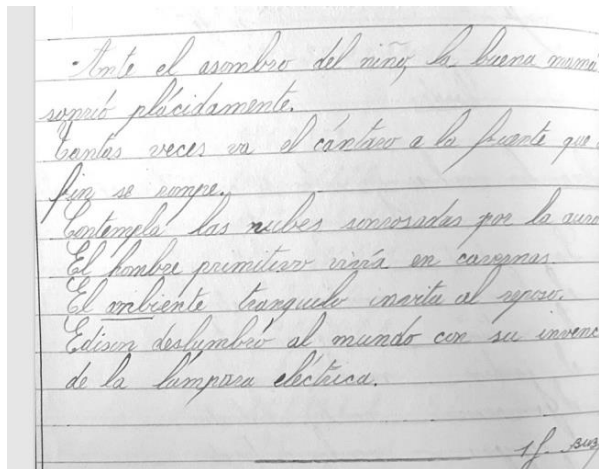
Fourth Grade

Know and apply grade-level phonics and word analysis skills in decoding words by using combined knowledge of all letter-sound

correspondences, syllabication patterns, and morphology.

Write narratives to develop real or imagined experiences or events using effective techniques, descriptive details, and clear event

sequences.

This story is about oil. The united states fuses more oil than any other country on the globe. Most oil pumped into our 200 million cars in the form of gasoline.

El libro es como el sol, en él gravita
el vago porvenir de la existencia
su fecunda luz de inteligencia
en abundantes gérmenes palpita.

Árbol que con su fruto nos incita
a gustar la dulzura de la ciencia
y manantial dulcísimo que incita
a beber en su clara transparencia.

Como el sol, como el árbol y la fuente
tanto el bien como el mal lleva en sus
un libro es una copa de veneno
o un cáliz de salud..., lector detente...

Develop efficient strategies to determine the area and perimeter of rectangles in real-world situations and mathematical problems.