Reading/Language Arts
4th Grade

Benchmark Code – Subject: Language Arts = LA

Strand 1= Literature
Strand 2= Informational Text
Strand 3= Foundational Skills
Strand 4= Writing
Strand 5= Communication
Strand 6= Language
Strand 7= Media Literacy

Code: Subject.Grade.Strand#.Standard#.Benchmark#
Example: LA.4.1.4.3 – Language Arts, Fourth Grade, Strand 1, Standard 4, Benchmark 3

Strand 1: Literature

Standard 1: The student reads closely to identify key ideas and details in literature.

Benchmark Code	Benchmark
LA.4.1.1.1	The student will refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
LA.4.1.1.2	The student will determine a theme of a story, drama, or poem from details in the text; summarize the text.
LA.4.1.1.3	The student will 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).

Standard 2: The student identifies the craft and structure of a story or selection.

Benchmark Code	Benchmark
LA.4.1.2.1	The student will 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).
LA.4.1.2.2	The student will 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 character, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.

LA.4.1.2.3	The student will compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.
Standard 3: The student integrates knowledge and ideas in literature.	
Benchmark Code	Benchmark
LA.4.1.3.1	The student will make connections between the text of a story of drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.
LA.4.1.3.2	The student will 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.
Standard 4: The student increases own range off reading and level of text complexity in literature.	
Benchmark Code	Benchmark
LA.4.1.4.1	The student will 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 by the end of the year
Strand 2: Informational Text	
Standard 1: The student reads closely to identify key ideas and details in informational text.	
Benchmark Code	Benchmark
LA.4.2.1.1	The student will refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
LA.4.2.1.2	The student will determine the main idea of a text and explain how it is supported by key details; summarize the text.
LA.4.2.1.3	The student will 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.
Standard 2: The student identifies the craft and structure of a story or selection.	
Benchmark Code	Benchmark
LA.4.2.2.1	The student will determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 4 topic or subject area.*
LA.4.2.2.2	The student will 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.

LA.4.2.2.3	The student will compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.
Standard 3: The student increases own range of reading and level of text complexity in informational text.	
Benchmark Code	Benchmark
LA.4.2.3.1	The student will interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time line, animation, or interactive elements, on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
LA.4.2.3.2	The student will explain how an author uses reasons and evidence to support particular points in a text.
LA.4.2.3.3	The student will integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
Standard 3: The student integrates knowledge and ideas in informational text.	
Benchmark Code	Benchmark
LA.4.3.3.1	The student will read and comprehend informational texts, including history/social studies, science, and technical texts, at the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range by the end of the year.
Strand 3: Foundational Skills	
Standard 1: Phonics and Word Recognition. The student knows and applies grade-level phonics and word analysis skills in decoding words.	
Benchmark Code	Benchmark
LA.4.3.1.1	The student will use 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.
LA.4.3.1.2	The student will spell grade-appropriate words correctly, consulting references as needed.
Standard 2: The student reads with sufficient accuracy and fluency to support comprehension.	
Benchmark Code	Benchmark
LA.4.3.2.1	The student will read on-level text with purpose and understanding.
LA.4.3.2.2	The student will read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.

LA.4.3.2.3	The student will use context to confirm or self-correct word recognition and understanding, rereading as necessary.
Strand 4: Writing	
Standard 1: Text Types and Purposes	
Benchmark Code	Benchmark
LA.4.4.1.1	The student will write opinion pieces on topics or texts, supporting a point of view with reasons and information. The opinion piece should 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; provide reasons that are supported by facts and details; link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*); and provide a concluding statement or section related to the opinion presented.
LA.4.4.1.2	The student will write informative/explanatory texts to examine a topic and convey ideas and information clearly. The informative/explanatory piece should introduce a topic clearly and group related information in paragraphs and sections; include formatting (*e.g. headings*), illustrations, and multimedia when useful to aiding comprehension; develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic; link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*); use precise language and domain-specific vocabulary to inform about or explain the topic; provide a concluding statement or section related to the information or explanation presented.
LA.4.4.1.3	The student will write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. The narrative piece should orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally; use dialogue and description to develop experiences and events or show the responses of characters to situations; use a variety of transitional words and phrases to manage the sequence of events; use concrete words and phrases and sensory details to convey experiences and events precisely; and provide conclusion that follows from the narrated experiences or event's.
Standard 2: Production and Distribution of Writing	
Benchmark Code	Benchmark
LA.4.4.2.1	The student will produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

LA.4.4.2.2	The student will develop and strengthen writing as needed by planning, revising, and editing with guidance and support from peers and adults.
Standard 3: Research to Build and Present Knowledge	
Benchmark Code	Benchmark
LA.4.4.3.1	The student will conduct short research projects that build knowledge through investigation of different aspects of a topic.
LA.4.4.3.2	The student will 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.
LA.4.4.3.3	The student will draw evidence from literary or information texts to support analysis, reflection, and research.
Standard 4: Range of Writing	
Benchmark Code	Benchmark
LA.4.4.4.1	The student will 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.
Strand 5: Communication	
Standard 1: Penmanship. The student engages in the writing process and writes to communicate ideas and experiences.	
Benchmark Code	Benchmark
LA.4.5.1.1	The student will demonstrate legible printing writing skills.
Standard 2: Listening and Speaking. The student effectively applies listening and speaking strategies.	
Benchmark Code	Benchmark
LA.4.5.2.1	The student will come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
LA.4.5.2.2	The student will follow agreed-upon rules for discussions and carry out assigned roles.
LA.4.5.2.3	The student will pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
LA.4.5.2.4	The student will review the key ideas expressed and explain their own ideas and understanding light of the discussion.
LA.4.5.2.5	The student will paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

LA.4.5.2.6	The student will identify the reasons and evidence a speaker provides to support particular points.
LA.4.5.2.7	The student will report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
LA.4.5.2.8	The student will add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
LA.4.5.2.9	The student will differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.

Strand 6: Language

Standard 1: Language Conventions. The student demonstrates command of the conventions of standard English grammar and usage when writing or speaking.

Benchmark Code	Benchmark
LA.4.6.1.1	The student will experiment with subordinating conjunctions in complex sentences with dependent clauses, write compound sentences and uninterrupted dialogue appropriately, and consistently use a complete range of sentences types correctly and produce complete sentences.
LA.4.6.1.2	The student will consistently use plural nouns and singular possessive appropriately.
LA.4.6.1.3	The student will consistently write in the present tense correctly.
LA.4.6.1.4	The student will consistently use the past tense for regular and irregular verbs from the grade level verb list correctly and begins to use the present perfect tense.
LA.4.6.1.5	The student will form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses.
LA.4.6.1.6	The student will use modal auxiliaries (e.g., *can, may, must)* to convey various conditions.
LA.4.6.1.7	The student will consistently use subject, object, and possessive pronouns correctly and experiment with reflexive pronouns and relative pronouns (*who, whose, whom, which, that).*
LA.4.6.1.8	The student will consistently write in the future tense correctly.
LA.4.6.1.9	The student will continue to use adjectives including ordering them correctly, use adverbs appropriately including relative adverbs (where, when, why), and begin to compare adjectives correctly.
LA.4.6.1.10	The student will consistently write prepositional phrases correctly.

LA.4.6.1.11	The student will use capital letters for the pronoun I, the beginning of a sentence, names of people and places, days of the week, months of the year, titles, and other consistently correct.
LA.4.6.1.12	The student will consistently use commas in dates, items in a series, quotations, and compound sentences correctly and experiments using them to introduce clauses.
LA.4.6.1.13	The student will consistently use new punctuation in writing: quotation marks in dialogue, apostrophes in possessives and contractions, and periods in abbreviations appropriately.
Standard 2: Vocabulary Acquisition and Use. The student determines the meaning of unknown words and phrases, understands word relationships in own meanings, and uses acquired words and phrases.	
Benchmark Code	Benchmark
LA.4.6.2.1	The student will use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
LA.4.6.2.2	The student will use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).
LA.4.6.2.3	The student will consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
LA.4.6.2.4	The student will explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.
LA.4.6.2.5	The student will recognize and explain the meaning of common idioms, adages, and proverbs.
LA.4.6.2.6	The student will correctly use frequently confused words (e.g., to, too, two; there, their)
LA.4.6.2.7	The student will demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).
LA.4.6.2.8	The student will acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., *wildlife, conservation, and endangered* when discussing animal preservation).

Strand 7 : Media Literacy	
Standard 1: Media Literacy. The student develops and demonstrates an understanding of media literacy as a life skill that is integral to informed decision making.	
Benchmark Code	Benchmark
LA.4.7.1.1	The student will use a variety of media sources.
Standard 2: Technology. The student develops the essential technology skills for using and understanding conventional and current tools, materials and processes.	
Benchmark Code	Benchmark
LA.4.7.2.1	The student will use appropriate available technologies to enhance communication and achieve a purpose (e.g., video, presentations).
LA.4.7.2.2	The student will determine and use appropriate digital tools (e.g., word processing, multimedia authoring, web tools, and graphic organizers) for publishing and presenting a topic.

Math
4th Grade

Benchmark Code = Subject: Math = M

Standard 1: Number
Standard 2 : Measurement
Standard 3 : Probability and Statistics
Standard 4: Geometry
Standard 5: Algebra
Standard 6: Data and Chance

Code: Subject (M, S, SS, LA).Grade#.Strand#.Standard#. Benchmark#
Example: M.4.1.4.3 – Math, Fourth Grade, Strand 1, Standard 4, Benchmark 3

Strand 1: Number

Standard 1: The student reads, writes, adds, and subtracts positive whole numbers.	
Benchmark Code	Benchmark
M.4.1.1.1	The student will read and write numbers in numerals and in words up to millions.
M.4.1.1.2	The student will represent a number in different ways.
M.4.1.1.3	The student will recognize the place values in numbers and understand what quantities each digit represents.
M.4.1.1.4	The student will identify place value in numbers up to millions.
M.4.1.1.5	The student will add/subtract multi-digit numbers.
M.4.1.1.6	The student will list all factors and multiples of integers up to 50.
Standard 2: The student understands the purpose and uses of estimation.	
Benchmark Code	Benchmark
M.4.1.2.1	The student will round off numbers to the nearest 5, 10, 25, 100 or 1000.
M.4.1.2.2	The student will use estimation to add, subtract, multiply and divide.
M.4.1.2.3	The student will estimate and compare different lengths and heights of objects.
Standard 3: The student builds conceptual understanding of fractions and equivalent fractions.	
Benchmark Code	Benchmark
M.4.1.3.1	The student will identify fractional parts of a region and of a set.
M.4.1.3.2	The student will relate fractions and decimals.
M.4.1.3.3	The student will understand that two fractions are equivalent if they represent the same numbers.
M.4.1.3.4	The student will place fractions on the number line.

M.4.1.3.5	The student will understand that any two fractions can be written as equivalent fractions with equal denominators.
M.4.1.3.6	The student will use equivalent fractions to compare fractions.
M.4.1.3.7	The student will add and subtract fractions by rewriting them as equivalent fractions with a common denominator.
Standard 4: The student understands and uses decimal numbers up to hundredths.	
Benchmark Code	Benchmark
M.4.1.4.1	The student will model decimals with base 10 materials.
M.4.1.4.2	The student will identify place value in decimals to hundredths.
M.4.1.4.3	The student will add and subtract decimals with up to two decimal places.
M.4.1.4.4	The student will compare and order decimals.
M.4.1.4.5	The student will round decimals to a given place.
Standard 5: The student multiplies small multi-digit numbers and divides by single-digit numbers.	
Benchmark Code	Benchmark
M.4.1.5.1	The student will understand and use a reliable algorithm for multiplying multi-digit numbers accurately and efficiently.
M.4.1.5.2	The student will understand and use a reliable algorithm for dividing numbers by a single-digit number accurately and efficiently.
M.4.1.5.3	The student will recognize, understand, and correct common computational errors.
M.4.1.5.4	The student will understand the role and function of remainders in division.
Standard 6: The student adds and subtracts simple fractions.	
Benchmark Code	Benchmark
M.4.1.6.1	The student will add and subtract fractions by rewriting them as equivalent fractions with a common denominator.
M.4.1.6.2	The student will identify and name mixed numbers.
Standard 7: The student solves multi-step problems using whole numbers, fractions, decimals, and all four arithmetic operations.	
Benchmark Code	Benchmark
M.4.1.7.1	The student will solve problems of various types that require more than one of the four arithmetic operations.
M.4.1.7.2	The student will understand and use parentheses to specify the order operation.
M.4.1.7.3	The student will use the inverse relation between multiplication and division to check results when solving problems.
M.4.1.7.4	The student will solve addition/subtraction number stories.

Strand 2: Measurement	
Standard 1: The student understands and uses standard measures of length and area.	
Benchmark Code	Benchmark
M.4.2.1.1	The student will know and use common units of length, area and volume in both metric and English systems.
M.4.2.1.2	The student will convert between metric measures.
M.4.2.1.3	The student will establish personal references for customary units of length.
M.4.2.1.4	The student will measure to the nearest ½, foot and inch.
M.4.2.1.5	The student will solve problems including: perimeter, surface area or volume of rectangular figures; Time measurements- decade, century.
Strand 3: Probability and Statistics	
Standard 1: The student records, arranges, and interprets data using tables and various types of graphs.	
Benchmark Code	Benchmark
M.4.3.1.1	The student will create and interpret the line, bar, pictograph and circle graphs and their associated tables of data.
Strand 4: Geometry	
Standard 1: The student understands three dimensional shapes.	
Benchmark Code	Benchmark
M.4.4.1.1	The student will identify face, edges, vertices and bases of prisms and pyramids.
Standard 2: The student understands 2-dimensional shapes including polygons.	
Benchmark Code	Benchmark
M.4.4.2.1	The student will identify 2 dimensional shapes.
M.4.4.2.2	The student will create/extend designs with 2-dimensional shapes.
M.4.4.2.3	The student will identify characteristics of 2 dimensional shapes.
M.4.4.2.4	The student will explore similarities and differences among quadrilaterals.
M.4.4.2.5	The student will form shapes by combining polygons.
M.4.4.2.6	The student will classify and name polygons.
M.4.4.2.7	The student will identify properties of polygons.
Standard 3: The student understands congruency, similarity, and symmetry.	
Benchmark Code	Benchmark
M.4.4.3.1	The student will identify congruent and similar figures.
M.4.4.3.2	The student will draw or form a figure congruent to a given figure.

Standard 4: The student understands and uses points, lines and angles.	
Benchmark Code	Benchmark
M.4.4.4.1	The student will draw line segments to a specified length.
M.4.4.4.2	The student will identify parallel and non parallel lines and line segments.
M.4.4.4.3	The student will identify and name points.
M.4.4.4.4	The student will identify and name line segments.
M.4.4.4.5	The student will identify and draw rays.
M.4.4.4.6	The student will identify acute, right, obtuse and straight angles.
M.4.4.4.7	The student will estimate the measure of an angle.
Strand 5: Algebra	
Standard 1: The student uses algebraic relationships in a variety of ways.	
Benchmark Code	Benchmark
M.4.5.1.1	The student will find the unknown in simple linear equations.
M.4.5.1.2	The student will make up/solve problems with parenthesis.
M.4.5.1.3	The student will determine if number sentences are true or false.
M.4.5.1.4	The student will write and solve problems with variables.

Social Studies
4th Grade

Benchmark Code – Subject: Social Studies = SS

Strand 1 = Historical Understandings
Strand 2 = Geographic Understandings
Strand 3 = Government/Civic Understandings
Strand 4 = Economic Understandings

Code: Grade.Strand#.Standard#Benchmark#
Example: SS.4.1.4.3 –Social Studies, Fourth Grade, Strand 1, Standard 4, Benchmark 3

Strand 1: Historical Understandings

Standard 1: Appreciation of History. The student appreciates the value of studying history as a way of enriching our awareness of the past and understanding of the future.

Benchmark Code	Benchmark
SS.4.1.1.1	The student will identify events as past, present, or future.
SS.4.1.1.2	The student will compare primary and secondary historical sources.
SS.4.1.1.3	The student will identify reasons for the exploration and the overall development of a United States region.
SS.4.1.1.4	The student will identify key historical events of a United States region.
SS.4.1.1.5	The student will describe the culture and customs of people in the United Stated including the influence of Native Americans in the development of the North American region.
SS.4.1.1.6	The student will recognize the role of leadership of key individuals in the development of the regions of the United States.
SS.4.1.1.7	The student will compare the present and past of a United States region.

Standard 2: Data Interpretation. The student interprets data related to historical understandings on different forms of graphic organizers.

Benchmark Code	Benchmark
SS.4.1.2.1	The student will interpret dates and events on a time line.
SS.4.1.2.2	The student will apply information on tables, graphs, and different types of maps to the study of history.

Strand 2: Geographic Understandings

Standard 1: The student understands landforms and their physical features.

Benchmark Code	Benchmark
SS.4.2.1.1	The student will locate the major physical features of North America on a map including deserts, oceans, mountain, rivers, and lakes.

SS.4.2.1.2	The student will compare and contrast North American regions shaped by people, history, and environment including landforms.
SS.4.2.1.3	The student will draw conclusions and make generalizations based on information based from maps and diagrams.
SS.4.2.1.4	The student will use lines of latitude and lines of longitude to determine location.

Standard 2: The student understands how location affects the environment.

Benchmark Code	Benchmark
SS.4.2.2.1	The student will explain the impact of geography on historical and current events.
SS.4.2.2.2	The student will explain how the physical geography of a region determines the natural resources and the economic activities practiced.
SS.4.2.2.3	The student will describe the possible consequences of a change in a region's physical and human characteristics: e.g. - changes in population, changes in environmental conditions.

Standard 3: The student reflects on population needs and its effect on our planet. The student uses logical reasoning to question his/her own ideas as new information challenges his/her conceptions of the natural world.

Benchmark Code	Benchmark
SS.4.3.3.1	The student will explain that fresh water, limited in supply and uneven in distribution, is essential for life and also for most industrial processes. The student will understand that this resource can be depleted or polluted, making it unavailable or unsuitable for life.
SS.4.3.3.2	The student will identify, explain, and discuss some effects human activities, such as the creation of pollution, reduction of forests and an increasing amount and variety of chemicals released into the atmosphere and farming intensively, have on weather, atmosphere, and the capacity of the environment to support some life forms.
SS.4.3.3.3	The student will identify and reflect on actions to be taken to continue having natural resources. The student will identify how teamwork and technology can play an important role on this situation.

Strand 3: Government/Civic Understandings

Standard 1: The student identifies and exhibits the skills of a good citizen based on understanding of justice and democratic principles.

Benchmark Code	Benchmark
SS.4.3.1.1	The student will propose that all people have rights and responsibilities as citizens of the nation in which he/she lives.
SS.4.3.1.2	The student will recognize the characteristics of a democracy.
SS.4.3.1.3	The student will demonstrate the value of cooperation and working together.

SS.4.3.1.4	The student will explain the necessity of obeying reasonable laws/rules voluntarily and why it is important for citizens in a democratic society to participate in public life (staying informed, volunteering, voting, and communicating with public figures).
SS.4.3.1.5	The student will explain the significance of various patriotic symbols.
Standard 2: The student understands the basic principles that provide the foundation of a republican form of government.	
Benchmark Code	Benchmark
SS.4.3.2.1	The student will discuss the importance of the freedoms in the Bill of Rights and recognize the Constitution as the basis of the federal government.
SS.4.3.2.2	The student will identify the major responsibilities of the legislative, executive, and judicial branches of the federal government.
Strand: Economic Understandings	
Standard 1: The student understands the importance of natural, human, and capital resources in an economy.	
Benchmark Code	Benchmark
SS.4.4.1.1	The student will describe the three types of resources that a business needs.
SS.4.4.1.2	The student will explain the importance of conservation of natural resources (renewable and non-renewable).
SS.4.4.1.3	The student will explain the impact of economy on a region's development.
Standard 2: The student gives examples of interdependence and trade and will understand how voluntary exchange benefits both parties.	
Benchmark Code	Benchmark
SS.4.4.2.1	The student will describe the interdependence of consumers and producers of goods and services.
SS.4.4.2.2	The student will describe how goods and services are allocated by price in the marketplace.
SS.4.4.2.3	The student will describe how some things are made locally, some elsewhere in the country, and some in other countries.
Standard 3: The student describes the costs and benefits of personal spending and saving choices.	
Benchmark Code	Benchmark
SS.4.4.1.5	The student will explain that because of scarcity, people must make choices and incur opportunity costs.

Science Curriculum
Grade: 4

Benchmark Subject: Science = S
- Strand 1 = Life Science
- Strand 2 = Chemistry
- Strand 3 = Earth Science
- Strand 4 = Physics
- Strand 5 = Scientific Inquiry

Code - Subject.Grade.Strand#.Standard#.Benchmark#

Example: S.4.2.1.1 – Science, fourth Grade , Strand 2, Standard 1, Benchmark 1

Lab =Science Lab in English **CN** =Ciencias Naturales in Spanish

Strand 1: Life Science

Standard 1: The student recognizes how systems interrelate to have a functioning body. Students understand the importance of good nutrition, hygiene and healthy habits as a means to be healthy.

UNIT 1- PERSONAL CARE AND HEALTH

Benchmark Code	Benchmark
S.4.1.1.1	The student will recall daily hygiene habits.
S.4.1.1.2	The student will identify the importance of the nervous system and ways to keep it healthy.
S.4.1.1.3	The student will discuss the care of the musculoskeletal system, exercise and good postures. The student will recognize terms in Spanish such as “aparato locomotor.”
S.4.1.1.4	The student will know the function of the immune system. The student will understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, stomach secretions and intestinal flora.
S.4.1.1.5	The student will know the main function and the relation between the circulatory or cardiovascular system and the respiratory system. The student will discuss common respiratory problems and how to prevent them. The student will recognize terms in Spanish such as “aparato respiratorio” and “aparato circulatorio.”
S.4.1.1.6	The student will explain that food provides energy and materials for growth and repair of body parts. The student will recognize that vitamins and minerals, present in small amounts in foods, are essential to keep everything working well. The student will further understand that as people grow up, the amounts and kinds of food and exercise needed by the body may change.
S.4.1.1.7	The student will know the main function and care of the digestive system. The student will identify habits to be healthy and prevent gastrointestinal diseases. The student will identify how to prevent dehydration due to gastrointestinal diseases. The student will

	recognize terms in Spanish such as “aparato digestivo.”
Standard 2: The student recognizes the importance of vaccination to prevent diseases. The student identifies poisons to promote preventive measures. **UNIT 2- VACCINES AND POISON/ACCIDENT PREVENTION**	
Benchmark Code	Benchmark
S.4.1.2.1	The student will explain that if germs are able to get inside the body, they may keep it from working properly. The student will also note that a healthy body can fight most germs that invade it, giving importance to rest and passive and active immunity. The student will recognize, however that there are some germs that interfere with the body’s defenses.
S.4.1.2.2	The student will explain that there are some diseases that human beings can only catch once. The student will explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.
S.4.1.2.3	The student will understand the how vaccines work and their importance.
S.4.1.2.4	The student will differentiate between disease outbreak, epidemic and pandemic.
S.4.1.2.5	The student will relate epidemics and pandemics to some events in history.
S.4.1.2.6	The student will identify poisons, potential poisons and hazards in the home, at school and locations children visit.
S.4.1.2.7	The student will know simple ways to prevent poisoning.
S.4.1.2.8	The student will realize many accidents may be prevented and identify safety signs.
Standard 3: The student identifies plants reproduce sexually and asexually. The student recognizes how plants interrelate to other living things and to the environment. The student realizes how human promote plant reproduction by applying different propagation methods. **UNIT 4- PLANT REPRODUCTION AND PROPAGATION**	
Benchmark Code	Benchmark
S.4.1.3.1	The student will identify basic parts of the plant and flower.
S.4.1.3.2	The student will understand how plants reproduce sexually by the union of the male cell with the female cell in the flower.
S.4.1.3.3	The student will understand how plants reproduce asexually by growing a new plant from a piece of the same kind and by spores.
S.4.1.3.4	The student will investigate and explain the process of pollination, seed propagation and germination and its relation to the environment.
S.4.1.3.5	The student will apply different one method of propagation and observe others, such as: planting seeds, plant spores, plant cuttings in water, plant cuttings in soil, marcotting, and grafting.

S.4.1.3.6	The student will observe and conclude that organisms interact with one another in various ways, such as providing food, shelter, pollination, and seed dispersal.
Standard 4: The student identifies our region as part of the Chihuahuan Desert, describes its main characteristics and analyzes its importance. The student recognizes how plants and other living things interrelate in the particular environment we live in. The student concludes and commits on ways to respect, protect and help the Chihuahuan Desert as a way to help ourselves. **UNIT 3- CHIHUAHUAN DESERT**	
Benchmark Code	Benchmark
S.4.1.4.1	The student will locate and identify the Chihuahuan desert.
S.4.1.4.2	The student will investigate and identify landscapes, flora and fauna from the area and describe special characteristics of this desert.
S.4.1.4.3	The student will discuss problems and solutions to protect the Chihuahuan desert.
S.4.1.4.4	The student will reflect, identify and conclude on personal preferences and express them in written form properly.
S.4.1.4.5	The student will create a product with basic information and personal conclusions and commitments.
S.4.1.4.6	The student will experience visiting a botanic garden, present and share information to an adult.
Strand 4: Physics	
Standard 1: The student identifies, explores, describes and classifies matter. The student explores and comprehends how energy affects matter. The student identifies physical changes in matter due to changes in energy and pressure. **UNIT 5: MATTERS, IT'S CHANGES AND EFFECTS**	
Benchmark Code	Benchmark
S.4.4.1.1	The student will identify matter has mass and volume and is present in three basic states: as solid, liquid and gas, and their characteristics.
S.4.4.1.2	The student will observe and identify some physical and chemical properties.
S.4.4.1.3	The student will understand matter is made of atoms that form molecules and relate the characteristics of different materials to the kind of molecules and their arrangement.
S.4.4.1.4	The student will differentiate the behavior of atoms due to changes in temperature and pressure.
S.4.4.1.5	The student will identify between physical and chemical changes by observation of changes caused by energy and heat. The student will observe contraction and expansion of matter due to the behavior of molecules caused by changes in temperature.

S.4.4.1.6	The student will identify the thermometer as a reliable instrument to measure temperature.
Standard 2: The student develops interest in space. The student participates in a worldwide event that promotes research, experimentation and knowledge about space. The student investigates and shares knowledge on a particular theme about space. WORLD SPACE WEEK OCT.4-10 OCTOBER 2016-"Remote Sensing – Enabling Our Future"	
Benchmark Code	Benchmark
S.4.4.2.1	The student will develop interest on space.
S.4.4.2.2	The student will research and share knowledge on a particular theme about space. (The theme changes every year)
S.4.4.2.3	The student will use a telescope and observe objects in space.
S.4.4.2.4	The student will visit the planetarium and museum to learn about space.
Strand 5: Scientific Inquiry	
Standard 1: The student applies scientific skills and follows the scientific method throughout the units.	
Benchmark Code	Benchmark
S.4.5.1.1	The student will observe, predict, hypothesize, classify, make and use models, identify and control variables, experiment, compare and contrast, define operationally, measure, collect, record and analyze data, infer/explain and communicate results in different activities in and outside school.
S.4.5.1.2	The student will give use different ways scientists investigate natural phenomena and identify processes all scientists use, such as collections of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses* and explanations, in order to make sense of the evidence. *Hypothesis: an informed guess or tentative explanation for which there is not yet much evidence.
S.4.5.1.3	The student will know and follow the steps of the scientific method.
S.4.4.1.4	The student will locate information in reference books, back issues of newspapers and magazines, CDs, DVDs and computer databases.
S.4.4.1.5	The student will select tools, such as cameras, cell phones, iPods, iPads, among others and social media for capturing and communicating information and results.
S.4.4.1.6	The student prepares tables and graphs, identify relationships they reveal and explains findings and can relate how he/she conducts investigations to how the scientific enterprise functions as a whole.
S.4.4.1.7	The student will recognize and explain that hypotheses are valuable, even if they turn out not to be true, they lead to meaningful investigations.
S.4.4.1.8	The student will understand that computers and other appliances have become invaluable in science because they speed up and extend people's ability to collect, store, compile, and analyze data; prepare research reports; and share data and ideas with investigators all over the world.

S.4.4.1.9	The student will identify technology as essential to science for such purposes as access to outer space and other remote locations, sample collection, measurement, data collection and storage, computation and communication of information.
S.4.4.1.10	The student will analyze and interpret a given set of findings, demonstrating that there may be more than one good way to do so.
Standard 2: The student identifies applications of science in everyday life.	
Benchmark Code	Benchmark
S.4.4.2.1	The student will give examples of employers who hire scientists, such as colleges and universities, businesses and industries, hospitals, and many government agencies.
S.4.4.2.2	The student will identify places where scientists work, including offices, classrooms, laboratories, farms, factories, sports and natural field settings ranging from space to the ocean floor.
S.4.4.2.3	The student will conclude science is involved in every aspect of life.