A Brief Guide to Disciplinary Literacy

May 2018

**“Command the language and you command the idea.”**

-- *Professor Martha Scott Trimble, Colorado State University, 1978*

Citing Professor Trimble is not an arbitrary choice. For years, I believed that by “command the language,” she meant the English language. Today, I understand it to mean the language of a discipline, the language of a field of study:

Lawyers command the language of law;

Biologists command the specific language of a certain area of science;

Fly fishers have a language of their own;

Knitters, visual artists, mathematicians, historians, car buffs, architects, construction workers – practitioners in all walks of life – command the language of their field.

**Defining Disciplinary Literacy**

Tim Shanahan and Cynthia Shanahan, in their article “[What Is Disciplinary Literacy and Why Does It Matter](http://alliedhealth.ceconnection.com/files/TLD0112A-1337958951687.pdf;jsessionid=60DF170DD7B7900F146D056404574F8D),” argue, “**Disciplinary literacy** is an emphasis on knowledge and abilities possessed by those who create, communicate, and use knowledge within the disciplines.”

This definition of disciplinary literacy honors the thinking within disciplines of study. **Disciplinary literacy** invites students to engage in the academic discipline while developing a voice as a member of that community.

In contrast, content area literacy focuses on study skills, on techniques, used to make sense of a disciplinary text. Whereas **content area literacy** uses a generic set of study tools and more generalizable strategies to grasp the meaning of a particular text, **disciplinary literacy**, Shanahan argues, provides students “with an insider’s perspective of a discipline.”

***Disciplinary Literacy: Reading***

Three strands, evident in the Colorado Academic Standards and the Common Core State Standards, reveal the literacy expectations across the disciplines:

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| **Key Ideas & Details** | **Craft & Structure** | **Integrate Knowledge & Ideas** | **Colorado Academic Standards** |
| ***The intent of these three standards is for students to demonstrate a full comprehension of a single text and to be able to use textual evidence to support further analysis of the text.*** | ***The intent of these three standards is for students to demonstrate knowledge of the decisions an author makes in crafting a text. It is important to note that the analysis of any one of these standards requires citing textual evidence (Standard 1) to support that analysis.*** | ***The intent of these three standards is for students to demonstrate an understanding of the relationship of complex ideas throughout a single text or provide an analysis between multiple texts on themes or ideas.*** | These Anchor Standards from the CCSS have specific expectations at each grade level that are incorporated into the Colorado Academic Standards: Standard 2, Reading, GLE 2.  For disciplinary literacy in **Grades 6-12**, students build a foundation of knowledge in history / social studies, science, and other disciplines that give them background to be better readers in all content areas. |
| 1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text. | 4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone. | 7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. |
| 2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas. | 5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole. | 8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. |
| 3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text. | 6. Assess how point of view or purpose shapes the content and style of a text. | 9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. |

**Text** is defined as “any media, print or non-print, used to communicate an idea, emotion, or information.”

– Lynn Erickson, *Concept-Based Curriculum*

***Defining “Text”***

As the definition above states, **text is “any media, print or non-print, used to communicate an idea, emotion, or information.”** In essence, a text can be a speech, a video, a chart or graph, an infographic, a photograph, a painting – communications that ask students to “make meaning” or comprehend a message.

While “reading” is used mainly to identify the act of decoding the written word, **we can further consider “reading” as the process toward “making meaning of ” – of comprehending -- the communication.** We may watch a video or view a photograph, and if our purpose is to actively study “the text” to reach a level of comprehension involving analysis and interpretation, then we have moved beyond an informal reading of that text.

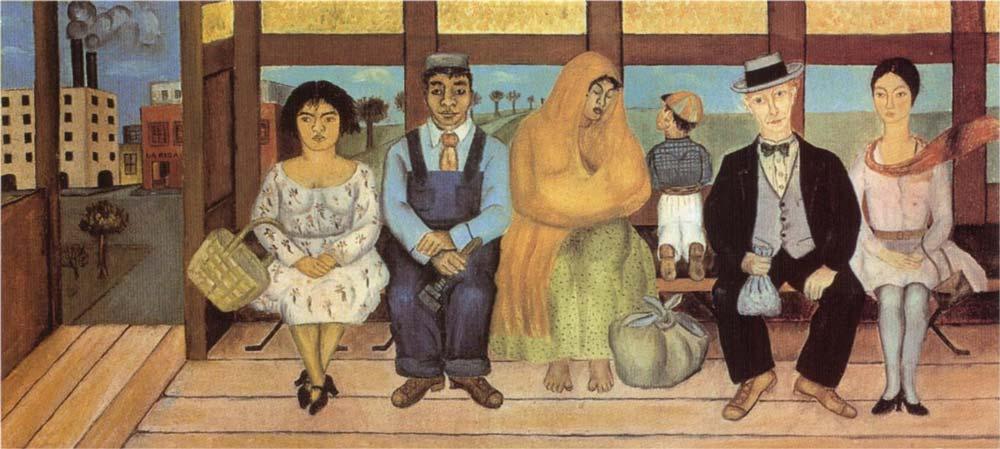
For example, if we ask students to “make meaning of” the painting below (Frida Kahlo’s “The Bus”), we may ask them to consider

* what Frida Kahlo may have intended with the use of color in the painting;
* the effect of her positioning and representing the people;
* the contrast of the urban background and the rural landscape and how that contrast impacts our

understanding of the painting,

We have then moved beyond a casual viewing of the painting into what we could call a “reading” of the painting. In particular, when we ask about the decisions “the writer” (or, in this case, “the artist”) has made in the creation of “the text,” then we are delving into the territory of disciplinary literacy.

We are studying craft, shifting between parts-to-whole and whole-to-part in our analysis, wondering about decisions made by the author/painter, all in an effort to comprehend the painting.

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***Literacy Demands Across Disciplines***

The standards further illustrate the literacy demands in History/Social Studies, Science, and the Technical Subjects and reveal the need to honor the unique qualities of texts in each academic discipline.

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| **Informational Text** | **History / Social Studies** | **Science and Technical Subjects** |
| 1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text. | 1. Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. | 1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions. |
| 2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas. | 2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text. | 2. Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text. |
| 3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text. | 3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them. | 3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text. |
| 4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone. | 4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science. | 4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 9-10 texts and topics*. |
| 5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole. | 5. Analyze how a text uses structure to emphasize key points or advance an explanation or analysis. | 5. Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., *force, friction, reaction force, energy*). |
| 6. Assess how point of view or purpose shapes the content and style of a text. | 6. Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts. | 6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address. |
| 7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. | 7. Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text. | 7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words. |
| 8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. | 8. Assess the extent to which the reasoning and evidence in a text support the author's claims. | 8. Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem. |
| 9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. | 9. Compare and contrast treatments of the same topic in several primary and secondary sources. | 9. Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts. |

***\*For History/Social Studies and Science & Technical Subjects, the 9-10 grade-band from the CCSS is used as example.***

***Disciplinary Literacy: Writing***

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| **Text Types and Purposes** | **Production and Distribution of Writing** | **Research to Build and Present Knowledge** | **Alignment to**  **Colorado Academic Standards** |
| *The intent of these three standards is for students to demonstrate the ability to craft pieces of writing in different modes and genre.* | *The intent of these three standards is for students to demonstrate the ability to generate ideas, draft, revise, and edit to produce polished pieces of writing with attention to audience and purpose.* | *The intent of these three standards is for students to demonstrate the ability to generate research questions, critically consider sources, and develop a research project.* | These Anchor Standards from the CCSS have specific expectations at each grade level and are incorporated into the Colorado Academic as Standard 3: Writing. |
| 1. **Write arguments** to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence. | 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. | 7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. |
| 2. **Write informative / explanatory texts** to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content. | 5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. | 8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism. |
| 3. **Write narratives** to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences. | 6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others. | 9. Draw evidence from literary or informational texts to support analysis, reflection, and research. |

***Disciplinary Literacy: Vocabulary***

One area in which teachers may highlight “the specialized nature of literacy in each discipline” is through vocabulary acquisition and development. Colorado Academic Standard 2, Reading for All Purposes, addresses the following Anchor Standard (with grade-level specificity in GLE 3): “Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level.”

**Vocabulary instruction** provides an authentic and valuable step into disciplinary literacy practices, and offers opportunities for students to practice the language of a discipline with repeated exposure to domain-specific words.

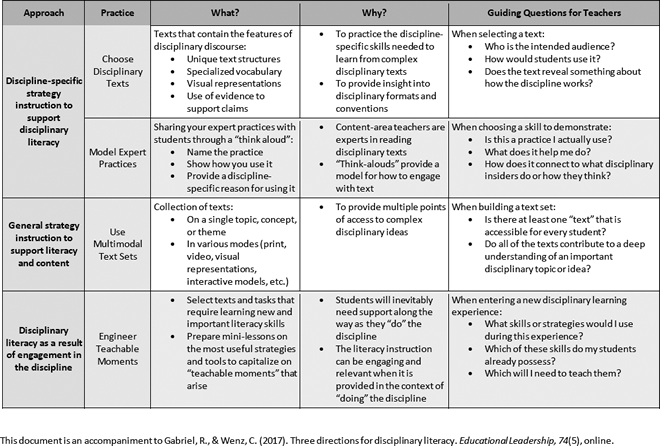
There are plenty of classroom practices for effective vocabulary instruction at different grade levels, for different student populations, and for direct instruction or student-generated learning.

***Disciplinary Literacy: Instructional Implications***

Attention to **disciplinary literacy** requires teachers to be explicit in decision making throughout the planning and teaching cycle in order to guide students in studying the unique qualities of the language, content, and texts of the discipline.

Rather than becoming “reading and writing teachers,” content area teachers, instead, become mentors to the student-apprentices in their classrooms. As such, they study texts authentic to the discipline, and teachers “think aloud” as they work through reading and writing opportunities during their instruction. Instructional time becomes time for explicit guidance in helping students understand the “specialized ways that literacy works in those disciplines” and to facilitate students’ awareness of “the specialized nature of literacy in each discipline” (Shanahan 16).

The article “[Three Directions for Disciplinary Literacy](http://www.ascd.org/publications/educational-leadership/feb17/vol74/num05/Three-Directions-for-Disciplinary-Literacy.aspx)” (from *Educational Leadership,* 2017) provides one approach teachers may take to embed disciplinary literacy instruction into their classroom practice.



***Appendix:***

***Disciplinary Literacy Examples***

***Disciplinary Literacy: An Example from English Language Arts***

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| **“Salvador Late or Early”** | **Questions to Consider** |
| Salvador with eyes the color of caterpillar, Salvador of the crooked hair and crooked teeth, Salvador whose name the teacher cannot remember, is a boy who is no one’s friend, runs along somewhere in that vague direction where homes are the color of bad weather, lives behind a raw wooden doorway, shakes the sleepy brothers awake, ties their shoes, combs their hair with water, feeds them milk and corn flakes from a tin cup in the dim dark of the morning.  Salvador, late or early, sooner or later arrives with the string of younger brothers ready. Helps his mama, who is busy with the business of the baby. Tugs the arms of Cecilio, Arturito, makes them hurry, because today, like yesterday, Arturito has dropped the cigar box of crayons, has let go the hundred little fingers of red, green, yellow, blue, and nub of black sticks that tumble and spill over and beyond the asphalt puddles until the crossing-guard lady holds back the blur of traffic for Salvador to collect them again.  Salvador inside that wrinkled shirt, inside the throat that must clear itself and apologize each time it speaks, inside that forty pound body of boy with its geography of scars, its history of hurt, limbs stuffed with feathers and rags, in what part of the eyes, in what part of the heart, in that cage of the chest where something throbs with both fists and knows only what Salvador knows, inside that body too small to contain the hundred balloons of happiness, the single guitar of grief, is a boy like any other disappearing out the door, beside the schoolyard gate, where he has told his brothers they must wait. Collects the hands of Cecilio and Arturito, scuttles off dodging the many schoolyard colors, the elbows and wrists crisscrossing, the several shoes running. Grows small and smaller to the eye, dissolves into the bright horizon, flutters in the air before disappearing like a memory of kites. | * Write an initial response to this literary work by Sandra Cisneros. * What central idea is developed about Salvador? We will revisit this idea after studying the text. * Consider Salvador’s interactions with others in the piece. How do his relationships impact our understanding of him? |
| * Consider the phrase “vague direction” in the first paragraph/stanza. How does that phrase impact our understanding of Salvador? Are there other parts of the text that further develop that understanding/impression of him? * Choose one of the many images/phrases that Cisneros uses to describe Salvador in the third paragraph/stanza. How does Cisneros use the image/phrase to develop Salvador? In what ways does the image/phrase reveal character? |
| * Analyze each of the three paragraphs/stanzas. How does Cisneros develop our understanding of Salvador as she moves us through the piece? Refer to the text to explain how the reader’s understanding is impacted as we move through the text? * Return to your initial response. In what ways has the close study of this piece of literature impacted your understanding? |
| Even though this example text is only 328 words, it serves to show types of questions a teacher may pose to move students through the text. In fact, Douglas Fisher argues that “close reading” practice should be limited to texts around 250-500 words, or, “if you need to use a staple for the reading, it is too long.”  Through effective questioning, a teacher is able to have students   * demonstrate a general understanding of main ideas and supporting details in a text (Standards 1-3), * analyze author’s word choice (or other word-level decisions) and decisions about structure and point of view (Standards 4-6), * and explain relationships between major ideas within a text or between two texts (Standards 7-9).   Notice that Standard 1, “cite textual evidence … to support analysis,” is important throughout the questioning process and the close reading of a text. Students have to be able to return to the text to find evidence to support their analysis. In essence, Standard 1 is always “in play” in relation to all other Standards. Instructionally, a teacher should be prepared to follow up each student response with a phrase like “can you give me details from the text that support your answer?” Sometimes the text-based support can be a “right there” response with a single piece of text; other times, students will be making connections to draw inferences and reach conclusions based on multiple pieces of evidence from the text. | |

***Disciplinary Literacy: An Example from Social Studies***

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| **The American Dream** | **Questions to Consider** |
| Perhaps it's no coincidence that historian James Truslow Adams coined the phrase "American dream" during the depths of the Great Depression. A popular writer at the time, Adams wanted to write a history of the United States for the general reader, one that underscored what he saw as the nation's central historic theme: the American dream. In his book, [**The Epic of America**](http://www.amazon.com/Epic-America-James-Truslow-Adams/dp/1931541337/), which was published in 1931, Adams describes [the American] dream:  **[It] is a land in which life should be better and richer and fuller for everyone, with opportunity for each according to ability or achievement … It is not a dream of motor cars and high wages merely, but a dream of social order in which each man and each woman shall be able to attain to the fullest stature of which they are innately capable, and be recognized by others for what they are, regardless of the fortuitous circumstances of birth or position.**  Adams was careful to say the American dream was not just a desire for affluence, but historian David Farber says the term quickly came to include it. The American dream "became closely linked to material comfort, to the consumer abundance America was producing. 'A better life' started to connote not just an economically secure life, but an abundant life. So there's a kind of linkage between mobility, a better life, and the good stuff that would make it so."  *(****236 words****)*  *http://americanradioworks.publicradio.org/features/americandream/a1.html* | * Write a 25-word summary of this passage. * What is the relationship of ideas between the first section of the text and the bolded portion? Between the bolded portion and the section following it? Use textual evidence to trace how the central idea is developed. |
| * What is meant by “fortuitous circumstances of birth or position” as it is used in the bold portion? * Explain what “desire for affluence” means in the portion following the bold section. Use evidence from the text to support your explanation. * Consider the different points of view between Adams and Farber regarding the American Dream. How has the author structured the text to help the reader consider these different points of view? |
| * How does Farber’s quote and the quote from Adams’ book show conflicting points of view regarding the American Dream? Use textual evidence to support your analysis. * [It would be important to bring in a different text, too, in order to show conflicting definitions of the American Dream. This example shows how different ideas are integrated in a single text.] |
| Even though this example text is only 236 words, it serves to show types of questions a teacher may pose to move students through the text. In fact, Douglas Fisher argues that “close reading” practice should be limited to texts around 250-500 words, or, “if you need to use a staple for the reading, it is too long.”  Through effective questioning, a teacher is able to have students   * demonstrate a general understanding of main ideas and supporting details in a text (Standards 1-3), * analyze author’s word choice (or other word-level decisions) and decisions about structure and point of view (Standards 4-6), * and explain relationships between major ideas within a text or between two texts (Standards 7-9).   Notice that Standard 1, “cite textual evidence … to support analysis,” is important throughout the questioning process and the close reading of a text. Students have to be able to return to the text to find evidence to support their analysis. In essence, Standard 1 is always “in play” in relation to all other Standards. Instructionally, a teacher should be prepared to follow up each student response with a phrase like “can you give me details from the text that support your answer?” Sometimes the text-based support can be a “right there” response with a single piece of text; other times, students will be making connections to draw inferences and reach conclusions based on multiple pieces of evidence from the text. | |

***Disciplinary Literacy: Examples from Drama / Theatre Arts***

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| **Scripted Works and Character Development** | **Questions to Consider** |
| Langston Hughes, the poet laureate of the Harlem Renaissance, knew how important hopes and dreams are. Hughes wrote prolific essays, short stories, and a large collection of poems that captured and celebrated the spirit and everyday life of the African-American community. His poem “Harlem” opens with a question: “What happens to a dream deferred?”  In her 1959 play, *A Raisin in the Sun*, Lorraine Hansberry chooses a line from the poem that Hughes suggests as an answer to the question: “Does it dry up / like a raisin in the sun?” She, then, builds her theatrical masterpiece around the concept of hopes, dreams, family pride and integrity in the Younger household in Chicago’s South-side.  *A Raisin in the Sun* became a “voice” that expressed the inequities of living in a white society and how hopes and dreams shouldn’t be ignored or postponed.  In Act I Scene 1 the character of Mama reflects:  **“Crazy ‘bout his children! God knows there was plenty wrong with Walter Younger—hard-headed, mean, kind of wild—plenty wrong with him. But he sure loved his children. Always wanted them to have something—be something. That’s where brother gets all these notions, I reckon. Big Walter used to say, he’d get right wet in the eyes sometimes, lean his head back with the water standing in his eyes and say, “Seem like God didn’t see fit to give the black man nothing but dreams—but He gave us children to make them dreams seem worthwhile.” [*She smiles*] He could talk like that, don’t you know. Yes, a fine man—just couldn’t never catch up with his dreams, that’s all.”**  By analyzing both Langston Hughes’ poem, then Lorraine Hansberry’s play, one can make literary connections to real-world, racial experiences and perspectives in the United States during the 1950’s and 1960’s. This is useful for creating authentic characterizations from diverse cultures. | * After reading *A Raisin in the Sun*, choose one character and write a short summary, tracing how that character’s emotions change throughout the play. * In the excerpt of Mama’s reflections, Hansberry writer “... plenty wrong with him. But he sure loved his children.” What does the use of “but” reveal about Mama’s perception of, and relationship with, Walter? * What does the sentence “He could talk like that, don’t you know” reveal about Mama’s perception of Walter? * Consider how Big Walter might respond to Hughes’ opening question of a “dream deferred”? |
| * How does perspective influence choice-making in scripted works – accurate or idealized? * How do actors’ personal emotions inform the development and portrayal of character relationships through using personal emotional experiences throughout the acting process? * What is the subtext of this excerpt? What words give you a sense of tone? * How do emotions affect your character’s communication skills with other characters in the play? |
| **Extension Questions (beyond the text)**   * What kinds of family traditions existed in the 1950’s/1960’s African-American community? * How do cultural and family traditions dictate character choices? * How does creating characters through rehearsal and performance, with knowledge of historical periods, enhance real-world connections to literary characters and diverse cultures? * What was the South-side of Chicago like in the 1950’s and early 1960’s? * How does the creation of a play enhance the discovery of current social, political, historical and cultural themes and issues, and philosophies? |

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| This example serves to show types of questions a teacher may pose to move students through a dramatic script and how to make connections for creative decision making when creating character.  Through effective questioning, a teacher is able to have students   * Build on the creative process in character development and script analysis * Demonstrate the influences of character choices within the group dynamics of the play through choices in expression, imagination, and appreciation * Communicate meaning by including perception of character intent and back story to engage an audience   Notice that Standard 3, *“An informed literacy, thoughtful critique, and cultural research are key aspects of Theatre Arts study.”* is important throughout the questioning process and the close reading of a script. Students have to be able to return to the script to find evidence to support their analysis. In essence, Standard 3 is always “in play” in relation to all other Standards. Instructionally, a teacher should be prepared to follow up each student response with a phrase like “can you give me details from the script that support your answer?” Sometimes the script-based support can be a “right there” response with a single line from the script; other times, students will be making connections to draw inferences and reach conclusions based on multiple pieces of evidence from the script. |

***Disciplinary Literacy: An Example from Science***

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| [**Arches National Park**](https://www.nps.gov/arch/learn/nature/index.htm) | **Questions to Consider** |
| a distant person is dwarfed by a massive rock arch  Arches National Park has the densest concentration of natural stone arches in the world. There are over 2,000 documented arches in the park, ranging from sliver-thin cracks to spans [**greater than 300 feet**](https://www.nps.gov/articles/arch-rock-stars.htm) (97 m).  Sandstone is made of grains of sand cemented together by minerals, but [**not all sandstone is the same**](https://www.nps.gov/arch/learn/nature/rock-strata.htm). The Entrada Sandstone was once a massive desert, full of shifting dunes of fine-grained sand. The grains are nearly spherical so, when packed together, they formed a rock that is very porous (full of tiny spaces).  In contrast, the Carmel layer just beneath the Entrada contains a mix of sand and clay. Clay particles are much smaller than sand grains; a lot of them can pack together and fill in gaps between the sand grains, making the rock denser and less porous than a purer sandstone.  On average, the park receives [**8-10 inches (18-23 cm) of precipitation a year**](https://www.nps.gov/arch/planyourvisit/weather.htm).  ***Average precipitation measured in inches per season***   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Month** | **2015** | **2014** | **2013** | **2012** | | **Winter (D, J, F)** | 0.52 | 0.35 | 0.54 | 0.39 | | **Spring (M, A, M)** | 1.06 | 1.21 | 0.39 | 0.22 | | **Summer (J, J, A)** | 1.33 | 1.44 | 0.69 | 0.38 | | **Fall (S, O, N)** | 1.58 | 1.02 | 1.54 | 0.36 | | * What do you notice in the images? * What questions surface in your mind about those images? * How will you go about finding answers to your questions? * Should answering some questions take priority over others? If so, why? * Write a 20-word summary of the text below the images. * What generalizations can you make about average precipitation in the chart? |
| * Why is certain text bolded and others not? * Explain the use of the terms “In contrast” in the third paragraph. * Using evidence from the text, explain the conditions that were formed. * What other information would you need to have in order to fully answer your questions? |
| * What is the relationship between the images and the informational text? * What is the relationship between the informational text and the data table? How might that information support an explanation of how the arches are formed? * Develop a model to show the changes in a system that causes the formation of the arches.      * Develop an argument for how or why your evidence supports the explanation for how the arches are formed (use your model to help communicate the argument). |
| You will notice three different “types of texts” being used in this example: images, informational text, and a data table.  Students in science need to be able to engage with various types of text in order to get information they need to form arguments with evidence. Scientific disciplinary literacy involves making claims, supported by evidence and reasoning.  Through effective questioning, a teacher is able to have students   * demonstrate a general understanding of main ideas and supporting details in a text (Standards 1-3), * analyze author’s word choice (or other word-level decisions) and decisions about structure and point of view (Standards 4-6), * and explain relationships between major ideas within a text or between two texts (Standards 7-9).   Notice that Standard 1, “cite textual evidence … to support analysis,” is important throughout the questioning process and the close reading of a text. Students have to be able to return to the text to find evidence to support their analysis. In essence, Standard 1 is always “in play” in relation to all other Standards. Instructionally, a teacher should be prepared to follow up each student response with a phrase like “can you give me details from the text that support your answer?” Sometimes the text-based support can be a “right there” response with a single piece of text; other times, students will be making connections to draw inferences and reach conclusions based on multiple pieces of evidence from the text. | |

***Disciplinary Literacy: Examples from Visual Arts***

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| **Works of Art are Complex Texts** | **Questions and Considerations** |
| Pablo Picasso’s [*Guernica*](https://www.pablopicasso.org/guernica.jsp) was created in multiple steps and stages as it evolved from preliminary sketches and drafts. There was a focus on the formal analysis and creation of the work, the choice of media, the size of the canvas, and the way the design appeared as well as extensive research behind the tragedy that actually happened. Picasso wanted to express, in the most immediate way possible, the horror of what occurred in that Spanish town in 1937. His chosen text to communicate the terror of that day was his final painting.  In this same way, a student may be driven to create a work of art that tells a story or expresses a personal idea of import. Or they may be given a prompt or theme on which to research and respond in a work of art. In this way, a student is responding to and producing knowledge to communicate an idea as well as generate significant new knowledge (Marshall & D’Adamo, 2011). The teacher may provide a space for students to explore materials that most effectively transform or transmit this knowledge or students may respond to a particular idea in a directed media using a skill taught by the teacher as a part of the art curriculum.  In all cases, as a part of the creation of a work of art, regardless of the medium, artists use literacy strategies, academic vocabulary, and symbolic representation that is part of the language of art and design. In some cases this may mirror traditional literacy processes, and in others, may be specific to communication through the discipline of visual art. | * The teacher may create opportunities for authentic situated practice by making accessible a variety of texts, works of art, images, stories, video or other digital media, personal accounts, and/or more as inspiration for ideation. * What is the relationship between the ideas presented by the artist and/or interpreted by the viewer? Use evidence found in the work of art and/or research or other support materials to trace how the central idea is developed by the artist and how viewers came to their own conclusions. Support materials may include print texts if they parallel the methodological inquiry of arts-based research and making, not detract from or replace it, such as but not limited to [Scholastic Art](http://art.scholastic.com/). |
| * What idea does the student as artist intend to express in their own work of art? Explain how this chosen idea might be evidenced: in sketches, lists, or various and appropriate written or verbal explanation of plans. Use evidence found in these initial designs to support the explanation(s). * Consider the different interpretations that a viewer might have which may or may not be different from the artist’s intent. How could the artist respond to or consider these different points of view? |
| * The teacher may provide tools, materials, and technologies of the visual arts and teach skills and techniques that can be explored and chosen as the best means to communicate an idea. Use evidence to support this analysis. * Students refine the work of art in process citing evidence from the text (in this case the work of art) using appropriate academic and discipline specific vocabulary. * The work of art becomes a complex symbol system incorporating the visual language or art and design that concretizes an artist’s communication of an idea. |
| Picasso is quoted to have said, “I have never made a painting as a work of art, it’s all research” ([McNiff, 2009](https://books.google.com/books?id=Py5dykoNA7oC&q=picasso#v=snippet&q=picasso&f=false)). In Reading, Writing and Communicating Standard 4. Research Inquiry and Design, research “involves critical thinking, thoughtful inquiry, and consideration of multiple points of view.” Students “generate engaging questions and gather…information to support their analysis and conclusions.” In RWC Standard 3. Writing and Compositions, students “work through various ideas while producing” and “arrange ideas to persuade, describe, and inform.” All of these literacy skills, and more, are present as artists actively engage in the selection of methods, materials, processes, and context found in artmaking as research. | |

***Some General Resources***:

* [Disciplinary Literacy: The Basics](http://shanahanonliteracy.com/blog/disciplinary-literacy-the-basics#sthash.irsOTSP3.dpbs). *Shanahan on Literacy.*
* “[What is Disciplinary Literacy](https://youtu.be/fNSzK31V5lg)?” *Video from NC State featuring Tim Shanahan.*
* [What is Disciplinary Literacy](https://keystoliteracy.com/blog/disciplinary-literacy/)? *Keys to Literacy.*
* “[The Importance of Disciplinary Literacy](https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1254&context=colleagues)”. *From Grand Valley State University*.
* “[Disciplinary Literacy: A Shift That Makes Sense](http://www.ascd.org/ascd-express/vol12/1212-lent.aspx).” *ASCD Express*.
* “[Task, Text, and Talk: Literacy for All Subjects](http://www.ascd.org/publications/educational-leadership/oct06/vol64/num02/Task,-Text,-and-Talk@-Literacy-for-All-Subjects.aspx).” *Educational Leadership*.
* [16 Resources on Disciplinary Literacy Strategies](http://inservice.ascd.org/16-resources-on-disciplinary-literacy-strategies/). *ASCD*.
* [Three Directions for Disciplinary Literacy](http://www.ascd.org/publications/educational-leadership/feb17/vol74/num05/Three-Directions-for-Disciplinary-Literacy.aspx). *Educational Leadership*.
* [Disciplinary Literacy](https://www.learner.org/courses/readwrite/disciplinary-literacy/what-is-disciplinary-literacy/1.html). *Resources from Annenberg Learner*.
* [Disciplinary Literacy](http://ceedar.education.ufl.edu/cems/disciplinary-literacy/). *Resources from the CEEDAR Center*.
* [Disciplinary Literacy Strategies in Content Area Classes](https://education.ucf.edu/mirc/docs/Disciplinary-literacy-strategies-in-content-area-classes2015.pdf). *Cynthia Shanahan. International Literacy Association*.
* “[The Case for Multiple Texts](http://www.ascd.org/publications/educational-leadership/feb17/vol74/num05/The-Case-for-Multiple-Texts.aspx).” *Educational Leadership*.
* “[Strategies for Teaching Complex Texts](http://www.ascd.org/ascd-express/vol12/1212-simmons.aspx).” *ASCD Express*.
* “[Teaching Science Literacy](http://www.ascd.org/publications/educational-leadership/mar11/vol68/num06/Teaching-Science-Literacy.aspx).” *Educational Leadership*.
* “[How to Integrate Disciplinary Literacy into the Science Curriculum](https://www.activelylearn.com/post/disciplinary-literacy-science-curriculum).”
* “[The Reading and Writing of Arithmetic](http://www.ascd.org/ascd-express/vol12/1212-richard.aspx).” *ASCD Express*.
* “[Field Notes: Building Disciplinary Literacy with Digital Literacy](http://www.ascd.org/ascd-express/vol12/1212-hackney.aspx).” *ASCD Express*.
* “[ELLs, Visual Arts, and the High-Stakes Writing Monster](http://www.ascd.org/ascd-express/vol12/1212-wills.aspx).” *ASCD Express*.

***Resources Specific to Dance and Drama***:

* “[What are Disciplinary Literacies in Dance and Drama in the Elementary Grades](http://jolle.coe.uga.edu/wp-content/uploads/2015/04/Frambaugh-Kritzer-et-al2._Final.pdf)”?

***Resources Specific to Visual Arts***:

* Buelow, S., Frambaugh-Kritzer, C., & Au, C. (2018). [Communicating like an artist: Disciplinary literacy instruction in elementary visual arts](https://www.tandfonline.com/doi/abs/10.1080/19388071.2018.1453896). *Literacy Research and Instruction, 57*(3), 232.
* Draper, R. J., & Broomhead, G. P. (2010). [*(Re)imagining content-area literacy instruction*.](https://www.tcpress.com/re-imagining-content-area-literacy-instruction-9780807751268) New York: Teachers College Press.
* Jensen, A. P., & Draper, R. J. (2015). [*Arts education and literacies*](https://www.taylorfrancis.com/books/e/9781317614845). London: Routledge.
* Marshall, J., & D'Adamo, K. (2011). [Art practice as research in the classroom: A new paradigm in art education](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwi_hZWJzqjbAhXlNX0KHYxTB_QQFgg6MAI&url=https%3A%2F%2Fsalemstate.instructure.com%2Fcourses%2F810003%2Ffiles%2F24626454%2Fdownload&usg=AOvVaw21tAg2i6_73rohn80Z9YwX). *Art Education, 64*(5), 12-18.
* McNiff, S. (2014). [Art speaking for itself: Evidence that inspires and convinces](https://www.ingentaconnect.com/content/intellect/jaah/2014/00000005/00000002/art00011?crawler=true). *Journal of Applied Arts & Health 5*(2), pp. 255-262.