

# What does literacy look like in science?

## Enhance literacy skills within science classrooms:

- 1. Pre-teach vocabulary:** Introduce and explicitly teach key scientific vocabulary before diving into new content. Emphasize the meaning, pronunciation, and usage of scientific terms. Help students make connections between scientific vocabulary and their prior knowledge.
- 2. Read scientific texts:** Guide students in reading and comprehending scientific texts, such as textbooks, scientific articles, research papers, or lab reports. Teach them to identify main ideas, locate supporting details, and understand complex scientific concepts. Provide guidance on reading strategies, such as skimming, scanning, and annotating.
- 3. Use graphic organizers and visual aids:** Utilize graphic organizers, diagrams, charts, and other visual aids to help students organize and synthesize scientific information. Encourage students to create concept maps or flowcharts to demonstrate their understanding of scientific concepts and relationships.
- 4. Incorporate science writing:** Teach students how to write scientifically by focusing on specific genres, such as lab reports, research papers, or scientific explanations. Emphasize the importance of clear and concise writing, accurate data representation, and proper use of scientific language and conventions.
- 5. Use inquiry-based learning:** Engage students in inquiry-based activities that promote scientific thinking and literacy skills. Encourage them to ask questions, design experiments, analyze data, and communicate their findings. Provide opportunities for students to present their research or findings, using scientific language and evidence.
- 6. Include scientific argumentation:** Teach students to construct and defend scientific arguments based on evidence. Guide them in evaluating and synthesizing multiple sources of information to support their claims. Encourage them to communicate their arguments through written or oral presentations.
- 7. Incorporate multimedia resources:** Utilize multimedia resources, such as videos, simulations, or interactive websites, to enhance scientific literacy. These resources can provide visual representations, real-world examples, and engaging content that supports understanding and application of scientific concepts.
- 8. Create Flexible Groups:** Foster collaborative learning environments where students can engage in discussions, debates, or group projects. Encourage them to explain scientific concepts to their peers, to defend their ideas, and to engage in scientific discourse. This promotes deeper understanding and improves communication skills.
- 9. Make real-world connections:** Help students see the relevance of scientific literacy in their lives and the world around them. Connect scientific concepts to real-world applications, current events, or contemporary issues. Engage students in discussions and debates about the ethical implications of scientific advancements.
- 10. Give formative assessment and feedback:** Use formative assessments, such as quizzes, exit tickets, or class discussions, to monitor students' understanding of scientific concepts and their literacy skills. Provide timely and specific feedback that focuses on both content knowledge and scientific communication.

**Remember to be flexible and adaptable in your teaching, catering to the diverse needs and abilities of your students. By implementing these strategies, you can create a classroom environment that promotes scientific literacy and that empowers students to become proficient readers, writers, and critical thinkers in the field of science.**

# What does literacy look like in social studies?

## Enhance literacy skills within social studies & history classrooms:

- 1. Explicitly teaching reading strategies:** Teach students specific reading strategies, such as activating prior knowledge, note-taking, summarizing and questioning. Model these strategies, and provide guided practice to help students comprehend and analyze text effectively.
- 2. Vocabulary instruction:** Focus on developing students vocabulary by explicitly teaching content-specific words and word-learning strategies. Encourage the use of context clues, word roots, prefixes, and suffixes to decipher unfamiliar terms.
- 3. Close reading:** Guide students in close reading of complex texts by breaking them down into smaller sections. Teach them to annotate and actively engage with the text by highlighting key ideas, by underlining important details, and by asking questions. This approach promotes deeper understanding and critical thinking.
- 4. Writing across content areas:** Emphasize writing as a tool for learning in all subject areas. Teach students to write in various genres (i.e., persuasive essays, lab reports, or historical analyses) tailored to the specific requirements of each discipline. Provide writing prompts that connect to the content they are studying.
- 5. Note-taking skills:** Teach effective note-taking strategies to help students extract important information from lectures, textbooks, and multimedia sources. Show them how to use headings, bullet points, and abbreviations to organize their notes for easy reference.
- 6. Graphic organizers:** Utilize graphic organizers to help students visualize and organize information. Graphic organizers—such as Venn diagrams, concept maps, and timelines—assist students in making connections, in analyzing relationships, and in synthesizing content across different disciplines. Determine when students can create their own graphic organizers—choosing the ones that work best for the individual students at this time
- 7. Scaffolding and differentiation:** Differentiate instruction to meet the diverse needs of students. Provide scaffolds, such as graphic organizers, sentence frames, or word banks to support struggling learners. Offer extension activities or more challenging texts to engage advanced students.
- 8. Incorporating multimedia resources:** Utilize multimedia resources, including videos, podcasts, and interactive websites, to enhance literacy skills. These resources provide additional modes of accessing information and can be particularly beneficial for visual or auditory learners.
- 9. Flexible Groups:** Encourage collaborative learning activities where students work in pairs or small groups. This promotes discussion, critical thinking, and peer-to-peer learning. Assign group projects, debates, or presentations that require students to research, analyze, and communicate their findings.
- 10. Professional development:** Stay informed about the latest research and instructional strategies in literacy education. Participate in Professional development opportunities to enhance your own knowledge and pedagogical skills. Share best practices, and collaborate with colleagues to improve literacy instruction continuously across content areas.

**Remember, literacy development is a shared responsibility across the disciplines. By implementing these strategies and fostering a culture of literacy in all content areas, you can support middle and high school students in becoming skilled readers, writers, and critical thinkers in history and social studies.**

# What does literacy look like in English & language arts?

## Enhance literacy skills within English classrooms:

- 1. Explicitly teaching reading strategies:** Teach students specific reading strategies, such as activating prior knowledge, note-taking, summarizing, and questioning. Model these strategies, and provide guided practice to help students comprehend and analyze text effectively.
- 2. Close reading:** Guide students in close reading of literary and informational texts. Teach them to analyze literary elements, such as plot, character development, theme, and symbolism. Help them identify the main idea, supporting details, and purpose in informational texts. Teach students how to re-read, reading again for further and more nuanced meaning.
- 3. Literary analysis:** Teach students how to critically analyze and interpret literature. Guide them in examining the structure, language, and themes of texts. Encourage close examination of quotes and passages to support their analysis. Promote discussions and written responses that explore multiple perspectives.
- 4. Writing instruction:** Teach the writing process, including prewriting, drafting, revising, editing, and publishing. Provide explicit instruction on different types of writing, such as narratives, essays, persuasive pieces, or research papers. Foster creativity, organization, clarity, and effective use of language in their writing.
- 5. Vocabulary development:** Incorporate vocabulary instruction into English classes. Explicitly teach students critical unit vocabulary and the use of context clues and word analysis strategies, word roots, prefixes, and suffixes to enhance their understanding of vocabulary in different texts.
- 6. Grammar and language conventions:** Integrate grammar instruction and language conventions into writing activities on a daily basis. Teach students about sentence structure, punctuation, verb tense, agreement, and common grammatical errors. Provide practice exercises and opportunities for editing and revising.
- 7. Literary response and discussion:** Encourage students to engage in literary response activities, such as book talks, literary discussions, or response journals. Provide prompts that encourage critical thinking, personal reflection, and connections to the text.
- 8. Scaffolding:** Provide scaffolds, such as graphic organizers, sentence starters, or peer support, to help struggling learners. Offer extension activities or more challenging texts for advanced students.
- 9. Independent reading:** Foster a love for reading by talking about great literature and books you are reading or listening to outside of the school day. Encourage reading or listening to books outside of school, and provide time for students to discuss what they are reading during class.
- 10. Authentic audience and purpose:** Incorporate authentic writing tasks that connect to real-world audiences and purposes. This can include writing for publication, creating digital portfolios, or participating in writing contests. Encourage students to revise and polish their work for an authentic audience.
- 11. Technology integration:** Integrate technology tools and resources into literacy instruction. Utilize digital platforms for reading, writing, and collaboration. Encourage students to create multimedia projects, blogs, or podcasts to enhance their communication skills.

**12. Formative assessment and feedback:** Use formative assessments, such as reading responses, writing samples, or quizzes, to monitor students' understanding and progress. Provide specific feedback that focuses on strengths, areas for improvement, and strategies to enhance their literacy skills.

**By implementing these strategies and fostering a culture of literacy specifically in English, teachers can support middle and high school students in becoming skilled readers, writers, and critical thinkers in the subject, enhancing their English language proficiency and comprehension.**

## **What does literacy look like in Career and Technical Education?**

### **Enhance literacy skills within CTE classrooms:**

- 1. Vocabulary development:** Emphasize the importance of technical vocabulary in CTE fields. Explicitly teach students industry-specific terms, acronyms, and technical jargon for each unit of instruction. Incorporate vocabulary activities that help students understand and use technical terms in context.
- 2. Reading technical texts:** Guide students in reading and comprehending technical texts, such as manuals, schematics, blueprints, or technical articles. Teach them strategies to locate key information, interpret symbols, and follow step-by-step instructions. Provide opportunities for students to practice reading and analyzing technical texts related to their specific CTE pathway.
- 3. Technical writing:** Teach students how to write effectively in their chosen CTE field. Emphasize the importance of clear and concise writing, proper use of technical language, and accurate documentation. Provide instruction on writing technical reports, project proposals, or work instructions.
- 4. Visual literacy:** Highlight the significance of visual literacy skills in CTE fields. Teach students how to interpret and create visual representations, such as diagrams, charts, graphs, or technical drawings. Help them understand the relationships between visuals and written information.
- 5. Workplace communication:** Focus on developing oral and written communication skills that are essential in the workplace. Teach students how to effectively communicate with colleagues, supervisors, and clients. Provide opportunities for students to practice presenting their work, participating in discussions, and engaging in professional conversations.
- 6. Digital literacy:** Integrate digital literacy skills into CTE instruction. Teach students how to navigate industry-specific software, how to use digital tools for research or data analysis, and how to communicate professionally through digital platforms. Help them develop skills in online collaboration and information literacy.
- 7. Technical research skills:** Guide students in conducting research related to their chosen CTE field. Teach them how to find and evaluate credible sources, to gather and synthesize information, and to present their findings effectively. Incorporate lessons on proper citation and ethical use of information.
- 8. Problem-solving and critical thinking:** Foster problem-solving and critical thinking skills within the context of CTE. Engage students in real-world scenarios/case studies that require them to analyze situations, to evaluate options, and to propose solutions while justifying their choices with evidence and reasoning.
- 9. Project-based learning:** Utilize project-based learning approaches where students can apply their literacy skills to hands-on, real-world projects. These projects should involve research, planning, collaboration, and communication. Provide opportunities for students to showcase their work through presentations or exhibitions.
- 10. Reflective practices:** Promote reflective practices that encourage students to think metacognitively about their learning. Help them identify their strengths, areas for improvement, and strategies to enhance their literacy skills within their CTE field. Provide opportunities for self-assessment and goal setting.

- 11. Industry connections:** Foster connections with industry professionals or organizations related to the specific CTE field. Invite guest speakers; arrange field trips, or facilitate mentorship programs to expose students to real-world applications of literacy skills within their chosen career paths.
- 12. Formative assessment and feedback:** Use formative assessments—such as quizzes, performance tasks, or portfolio reviews to monitor students’ understanding and progress. Provide timely and specific feedback that focuses on literacy skills and their application within the CTE context.

**By implementing these strategies and fostering a culture of literacy specifically in career and technical education (CTE) classes, teachers can support middle and high school students in becoming skilled readers, writers, and critical thinkers in their chosen career pathways. This focus on literacy development within CTE subjects enhances students' ability to comprehend technical materials, to communicate effectively, and to think critically, preparing them for success in their future careers.**

## **What does literacy look like in Fine Arts?**

### **Enhance literacy skills within fine art classrooms:**

- 1. Artistic vocabulary development:** Emphasize the importance of artistic vocabulary in the fine arts. Explicitly teach students specific terms related to different art forms, techniques, styles, and elements of art. Encourage students to use and understand these terms in their discussions and written reflections.
- 2. Visual analysis:** Guide students in analyzing and interpreting visual artworks. Teach them to observe details, identify artistic elements and principles, and articulate their observations. Encourage them to express their interpretations through written and verbal communication.
- 3. Art criticism and critique:** Foster critical thinking and communication skills through art criticism and critique sessions. Teach students how to analyze artworks, to provide constructive feedback, and to engage in respectful discussions about artistic choices and intentions. Encourage students to analyze the artwork and provide interpretation, using evidence from what they see or hear in an artwork.
- 4. Artist statements:** Teach students how to write artist statements that accompany their artwork. Guide them in reflecting on their artistic process, explaining the meaning behind their work, and articulating their intentions. Emphasize clarity, creativity, and effective communication in their written statements.
- 5. Art history and research:** Integrate art history lessons and research projects into fine arts classes. Teach students about different art movements, artists, and cultural contexts. Guide them in conducting research and in presenting their findings, using proper citation and writing conventions.
- 6. Creative writing and storytelling:** Encourage students to engage in creative writing activities related to their artistic work. Encourage them to write narratives, poems, or descriptive pieces, inspired by their artwork or the work of others. Foster the integration of visual and written expression.
- 7. Collaborative projects and presentations:** Provide opportunities for students to collaborate on artistic projects and to present their work to their peers or the wider community. Encourage them to communicate their artistic choices, processes, and interpretations through oral presentations, artist talks, or exhibitions.
- 8. Multimodal expression:** Foster the integration of different modes of expression, such as visual art, music, dance, and writing. Encourage students to explore interdisciplinary connections and to create projects that combine multiple forms of artistic expression.
- 9. Reflective journals and sketchbooks:** Promote the use of reflective journals or sketchbooks as a means for students to document their artistic process, to express their thoughts and feelings, and to engage in self-reflection. Encourage written reflection alongside visual documentation.

- 10. Portfolio development:** Guide students in developing portfolios to showcase their artwork and written reflections. Help them curate their best pieces and provide written descriptions or explanations for each artwork. Encourage them to regularly update and reflect on their portfolio.
- 11. Technology integration:** Utilize digital tools and resources to enhance literacy skills in fine arts classes. Introduce students to digital art platforms, online art communities, or virtual exhibitions. Encourage them to use technology for research, presentation, and documentation of their artwork.
- 12. Formative assessment and feedback:** Use formative assessments—such as artistic reflections, peer evaluations, or written responses—to monitor students’ understanding and progress. Provide constructive feedback that focuses on artistic growth, effective communication, and the development of literacy skills.

**By implementing these strategies and fostering a culture of literacy specifically in the arts classroom, teachers can support middle and high school students in becoming skilled readers, writers, and critical thinkers in their artistic pursuits. This emphasis on literacy development within the arts enhances students' ability to analyze and interpret artistic texts, communicate their ideas effectively, and think critically about artistic concepts and techniques, fostering their creativity and growth as artists.**

## **What does literacy look like in physical education?**

### **Enhance literacy skills within P.E. and health classrooms:**

- 1. Vocabulary development:** Emphasize the importance of vocabulary related to physical education and fitness. Explicitly teach students terms associated with different exercises, sports, equipment, and body movements. Incorporate vocabulary activities that help students understand and use these terms in context.
- 2. Reading for fitness:** Integrate reading materials focused on health, wellness, and fitness into the PE curriculum such as diagrams of games, plays, movements of students, rules, etc. Provide articles, books, or online resources that promote understanding of exercise techniques, nutrition, anatomy, or sports psychology. Encourage students to read and reflect on these texts.
- 3. Fitness journals:** Encourage students to keep fitness journals where they record and reflect on their physical activity and progress. Teach them how to write entries that describe their workouts, that demonstrate how to set goals, and that analyze their performance. Encourage self-reflection and the development of goal-setting skills.
- 4. Health and wellness research projects:** Assign research projects related to health and wellness topics. Guide students in investigating various aspects of physical well-being, such as nutrition, stress management, injury prevention, or the benefits of different exercise modalities. Teach them how to conduct research, analyze findings, and present their work.
- 5. Reflective writing:** Incorporate reflective writing activities in P.E. classes. After engaging in physical activities, ask students to reflect on their experiences and to describe how they felt physically, mentally, and emotionally. Encourage them to express their thoughts, challenges, and achievements through writing.
- 6. Fitness goal-setting:** Teach students how to set realistic and measurable fitness goals. Guide them in writing down their goals, in identifying specific actions to achieve them, and in monitoring their progress. Encourage students to reflect on their goals regularly and to adjust them as needed.
- 7. Health and wellness newsletters:** Have students create health and wellness newsletters or bulletins to share fitness tips, nutrition advice, or exercise routines with their peers. This activity promotes research, writing, and communication skills while promoting health literacy among students.
- 8. Physical activity logs:** Encourage students to keep physical activity logs where they record the types of exercises, duration, intensity, and perceived effort. Teach them to use these logs as a tool for self-monitoring, tracking progress, and reflecting on the benefits of regular physical activity.



- 9. Integrating technology:** Incorporate technology tools and apps that promote literacy and physical activity. Utilize fitness apps, online trackers, or educational websites that provide information on exercise techniques, nutrition facts, or fitness challenges. Encourage students to engage with these resources and to reflect on their experiences.
- 10. Peer collaboration and presentations:** Promote collaboration and communication skills by assigning group projects or presentations related to physical education and fitness topics. Encourage students to research, prepare, and present their findings to their peers. This activity fosters teamwork, research skills, and oral communication.
- 11. Media analysis:** Analyze media messages related to physical activity, body image, or fitness trends. Teach students to critically evaluate advertisements, articles, or social media posts that promote fitness products or programs. Encourage discussions and written responses that address media literacy and healthy body perceptions.
- 12. Formative assessment and feedback:** Use formative assessments, such as fitness quizzes, written reflections, or self-assessments, to monitor students' understanding and progress. Provide constructive feedback that focuses on their physical activity choices, fitness knowledge, and literacy skills.

**This focus on literacy development in P.E. enhances students' ability to understand and interpret fitness concepts, to communicate effectively about health-related topics, and to think critically about the connections between physical activity and overall well-being, empowering them to make informed decisions about their own health and fitness.**

## **What does literacy look like in music?**

### **Enhance literacy skills within choir and band classrooms:**

- 1. Music notation:** Emphasize the importance of reading and understanding music notation. Teach students how to read musical symbols, notes, rhythms, and key signatures. Provide practice exercises and worksheets that help students improve their fluency in reading and interpreting sheet music.
- 2. Sight-reading:** Incorporate sight-reading exercises into daily warm-ups or rehearsals. Choose age-appropriate musical pieces, and gradually increase the difficulty level. Teach students strategies to decode and perform music on sight, such as recognizing patterns, counting rhythms, and identifying intervals.
- 3. Music theory:** Introduce music theory concepts to students, including scales, chords, harmony, and form. Teach them to analyze and interpret the structure and elements of a musical piece. Provide opportunities for students to apply their knowledge by composing short melodies or harmonizing existing melodies.
- 4. Music history and research:** Integrate music history lessons and research projects into music classes. Teach students about different musical periods, composers, and styles. Guide them in conducting research and in presenting their findings, using proper citation and writing conventions.
- 5. Music appreciation and analysis:** Encourage students to actively listen and analyze music from various genres and time periods. Teach them to identify musical elements, such as melody, harmony, rhythm, dynamics, and timbre. Encourage them to express their interpretations and opinions through written or verbal communication.
- 6. Performance annotations:** Have students annotate their sheet music with performance markings, such as dynamics, articulations, phrasing, or interpretation indications. Teach them how these markings enhance the musical expression and how they communicate the composer's intentions.
- 7. Reflective journals:** Encourage students to keep reflective journals where they write about their musical experiences, rehearsal observations, and personal reflections. Promote self-reflection, goal-setting, and continuous improvement through their written entries.
- 8. Song analysis and lyric interpretation:** If working with vocal music, guide students in analyzing song lyrics and interpreting their meanings. Teach them to consider the use of poetic devices, symbolism, and figurative

language in the lyrics. Encourage written responses that explore the connections between music and language.

- 9. Musical storytelling:** Incorporate storytelling activities where students create musical narratives or soundtracks to accompany a given story or theme. Encourage them to write narratives that reflect the emotional and dramatic elements of the music they create.
- 10. Music reviews and critiques:** Encourage students to write reviews or critiques of musical performances they listen to or attend. Teach them to provide constructive feedback, to analyze the artistic choices of performers, and to express their personal opinions. Emphasize clear and effective communication in their writing.
- 11. Music composition and arrangement:** Introduce students to music composition and arrangement techniques. Teach them how to notate their musical ideas, using notation software or traditional methods. Encourage creativity and guide them in expressing their musical ideas through written composition.
- 12. Formative assessment and feedback:** Use formative assessments, such as quizzes, written reflections, or performance evaluations, to monitor students' understanding and progress. Provide constructive feedback that focuses on their musical skills, literacy development, and creativity.

**By implementing these strategies and fostering a culture of literacy—specifically in the music and band classrooms—teachers can support middle and high school students in becoming skilled readers, writers, and critical thinkers within the realm of music. This emphasis on literacy development, within the context of music, enhances students' ability to read and interpret musical notation, to communicate their musical ideas effectively, and to think critically about musical concepts and performances, fostering their artistic expression and growth as musicians.**