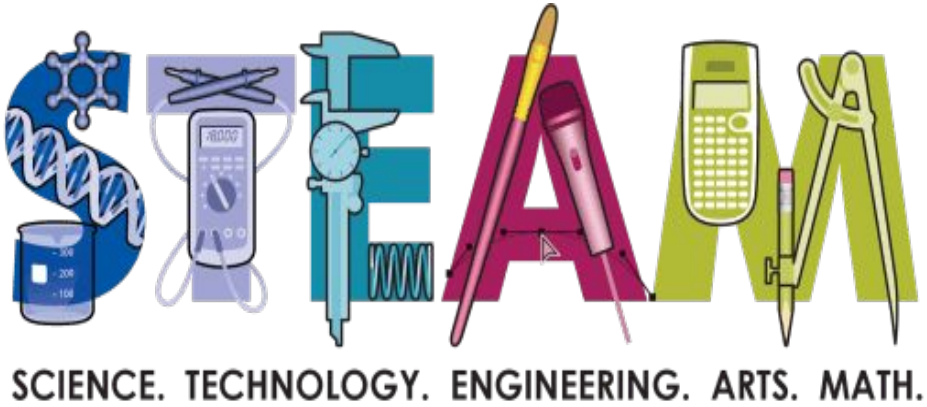


Link to Slideshow

WI DPI Initiative

STEAM Fellows Presentation for Art Teachers

By Jennifer Handrick

How Does This Look for Art Teachers vs. STEM Teachers?

Art Teachers: Art + Science, Technology, Engineering and/or Math

“Other” Teachers: STEM + Arts Integration or Arts Enhancement

Topics:

- Common Misconceptions
- What is Arts Enhancement?
- What is Arts Integration?
- What is STEAM?
- What are the benefits of STEAM?
- Why should Arts teachers teach STEAM lessons?
- Why should STEM teachers teach STEAM lessons?

Common Misconception: *Arts Enhancement is the Same as Arts Integration*

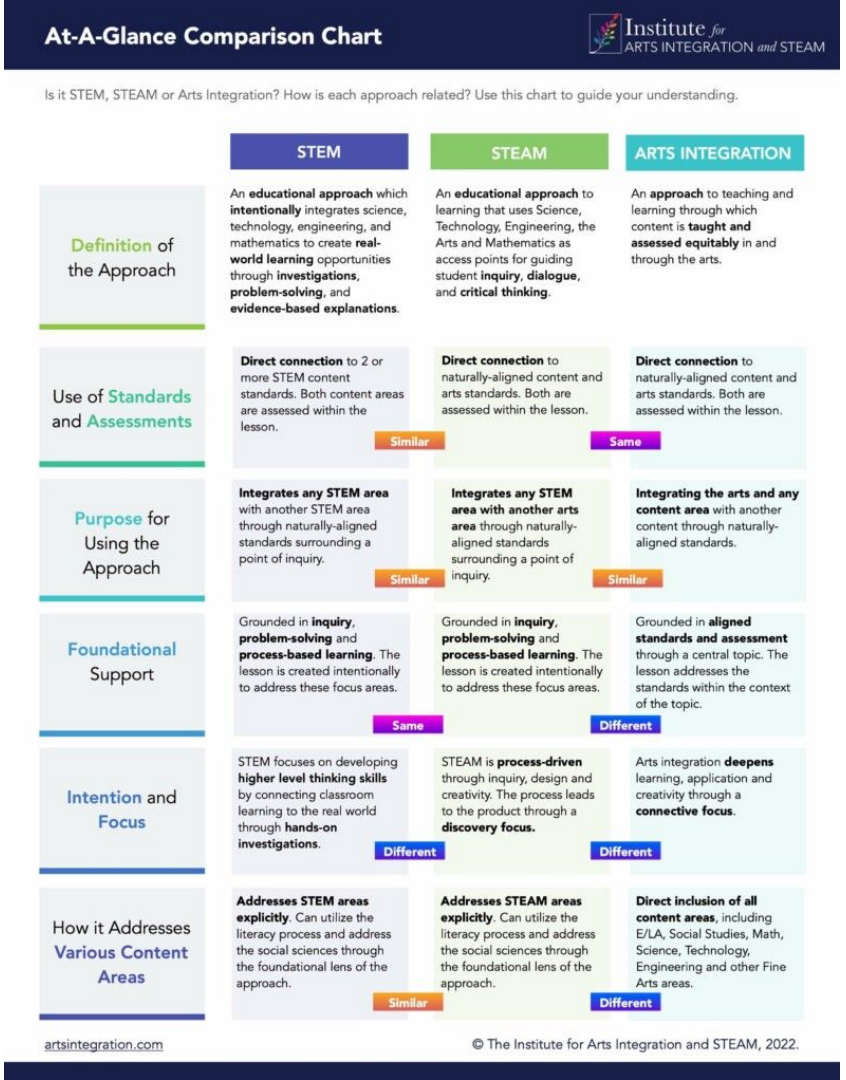
Arts enhancement uses the arts to <u>support</u> other subjects, while arts integration uses the arts to teach and assess content.

<u>Arts Enhancement</u>

- Uses the arts to <u>support</u> other subjects
- Encourages creativity and motivates students
- Doesn't fully integrate the arts into the curriculum
- Teachers can use the arts to enhance lessons <u>without</u> needing to collaborate with an arts expert

Arts Integration

- Uses the arts to teach and assess content *(teaches and assesses standards from both areas)*
- Involves students in active learning, decision-making, and problem-solving
- Ensures that both the content and the arts are taught and assessed equitably
- Involves students in a creative process that connects an art form and another subject area
- Teachers usually collaborate with an arts expert (i.e. arts teacher and/or arts integration specialist)



At-A-Glance Comparison Chart

Institute for ARTS INTEGRATION and STEAM

Is it STEM, STEAM or Arts Integration? How is each approach related? Use this chart to guide your understanding.

	STEM	STEAM	ARTS INTEGRATION
Definition of the Approach	An **educational approach** which **intentionally** integrates science, technology, engineering, and mathematics to create **real-world learning** opportunities through **investigations**, **problem-solving**, and **evidence-based explanations**.	An **educational approach** to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student **inquiry, dialogue**, and **critical thinking**.	An **approach** to teaching and learning through which content is **taught and assessed equitably** in and through the arts.
Use of Standards and Assessments	**Direct connection** to 2 or more STEM content standards. Both content areas are assessed within the lesson.	**Direct connection** to naturally-aligned content and arts standards. Both are assessed within the lesson.	**Direct connection** to naturally-aligned content and arts standards. Both are assessed within the lesson.
	Similar	Same	
Purpose for Using the Approach	**Integrates any STEM area** with another STEM area through naturally-aligned standards surrounding a point of inquiry.	**Integrates any STEM area with another arts area** through naturally-aligned standards surrounding a point of inquiry.	**Integrating the arts and any content area** with another content through naturally-aligned standards.
	Similar	Similar	
Foundational Support	Grounded in **inquiry**, **problem-solving** and **process-based learning**. The lesson is created intentionally to address these focus areas.	Grounded in **inquiry**, **problem-solving** and **process-based learning**. The lesson is created intentionally to address these focus areas.	Grounded in **aligned standards and assessment** through a central topic. The lesson addresses the standards within the context of the topic.
	Same	Different	
Intention and Focus	STEM focuses on developing **higher level thinking skills** by connecting classroom learning to the real world through **hands-on investigations**.	STEAM is **process-driven** through inquiry, design and creativity. The process leads to the product through a **discovery focus.**	Arts integration **deepens** learning, application and creativity through a **connective focus**.
	Different	Different	
How it Addresses Various Content Areas	**Addresses STEM areas explicitly**. Can utilize the literacy process and address the social sciences through the foundational lens of the approach.	**Addresses STEAM areas explicitly**. Can utilize the literacy process and address the social sciences through the foundational lens of the approach.	**Direct inclusion of all content areas**, including E/LA, Social Studies, Math, Science, Technology, Engineering and other Fine Arts areas.
	Similar	Different	

artsintegration.com

© The Institute for Arts Integration and STEAM, 2022.

Examples:

- Using music to enhance a history lesson
- Incorporating visual arts into a science project
- Using tableau to demonstrate understanding of a social studies topic
- Using illustrations to visually connect and reinforce terms and knowledge in a science lesson

*Both arts enhancement and arts integration can be powerful ways to teach and engage students.

Q: Are these examples Arts Enhancement or Arts Integration?

A: It depends on how they are planned, implemented and assessed.

STEAM

- Uses the arts to teach and assess STEM content (teaches and assesses standards from both areas)
- An educational model that integrates the arts (art, music, theater, dance, and humanities) with STEM (science, technology, engineering, and/or mathematics)
- Focuses on a process-driven experience through inquiry, design, and creativity
- Involves hands-on learning experiences, such as experiments, design projects, and solving real-world problems
- Can improve students' problem-solving skills
- Can utilize the literary process and address the social sciences through the foundation lens of the approach
- STEM teachers often collaborate with an arts expert (i.e. arts teacher and/or arts integration specialist) and Arts teachers often collaborate with a STEM expert (i.e. teacher of the STEM subject or instructional coach)

Benefits of STEAM Education

Critical thinking - Helps students develop the ability to approach challenges from multiple perspectives and develop skills that are in high demand in the modern workforce

Creativity - Introduces students to the creative process, from ideation to production and encourages lateral thinking

Confidence - Helps students build self-assurance in their capabilities and helps students develop a more assertive and proactive approach in other aspects of life

Problem-solving - Helps students develop the skills to solve problems

Collaboration - Helps students develop the skills to work together and helps students develop social skills

Curiosity - helps students learn to ask questions, observe, predict, and analyze, AND helps students develop a lifelong love of learning

Innovation and entrepreneurship - Encourages students to be innovative and entrepreneurial

Key Reasons Why Art Teachers Should Incorporate STEAM Lessons:

- Naturally Integrated: Demonstrate how every “core” subject is already naturally incorporated and taught in arts classes and lessons (interdisciplinary).
- Foster Interdisciplinary Thinking: Integrating arts and STEM encourages students to think across different disciplines, fostering a holistic understanding of the world.
- Cater to Diverse Learning Styles: STEAM activities in art classes can engage students who may not traditionally excel in traditional STEM subjects, boosting their confidence in their STEM classes.
- Career Preparedness: Preparing students for technology and engineering related arts and design careers
- Problem-solving Skills: STEAM projects often involve complex challenges that require students to analyze, strategize, and implement solutions, enhancing problem-solving abilities.
- STEAM lessons connect concepts to real-world scenarios, making learning more meaningful and relevant, which can further enhance brain engagement.
- Multi-faceted Approach: By integrating science, technology, engineering, art, and math, STEAM lessons engage various cognitive functions, stimulating different parts of the brain simultaneously.

Key Reasons Why STEM Teachers Should Incorporate STEAM Lessons:

Increased Creativity and Innovation: Integrating arts into STEM lessons encourages students to think outside the box, experiment with different approaches, and develop innovative solutions to problems.

Enhanced Engagement and Motivation: By incorporating artistic expression, STEAM lessons can appeal to a wider range of learning styles, capturing the interest of students who might not be traditionally drawn to STEM subjects.

Real-World Application: STEAM projects often mimic real-world scenarios where different disciplines need to work together to solve complex problems, providing a more relevant learning experience.

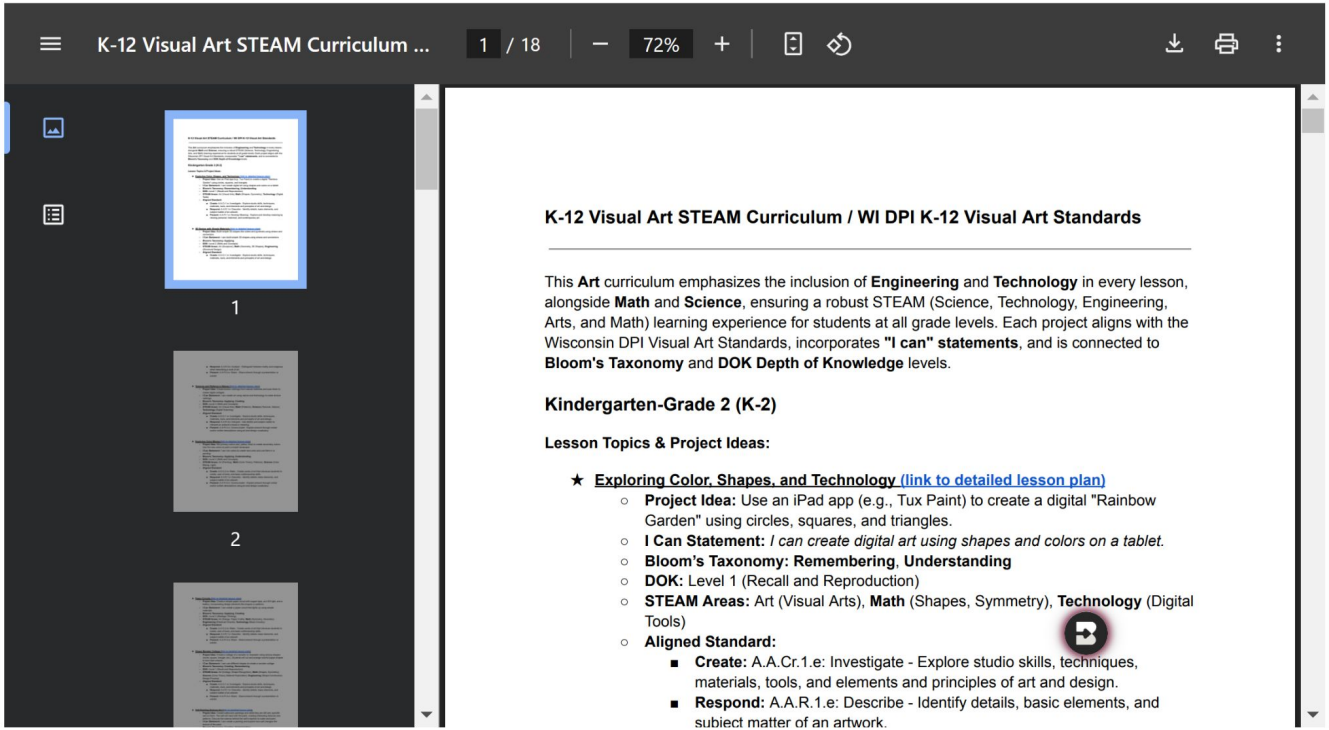
Improved Critical Thinking Skills: The combination of scientific inquiry with artistic expression encourages students to analyze, interpret, and communicate their ideas effectively.

Collaboration and Teamwork: STEAM projects often require students to work together in diverse teams, fostering collaboration and communication skills.

Holistic Development: By incorporating the arts, STEAM education develops not only technical skills but also aesthetic appreciation, communication skills, and critical thinking abilities.

Career Preparedness: The skills developed through STEAM education are highly valuable in today's job market, as many careers require a blend of technical knowledge and creative thinking.

“STEAM” Lessons (STEM Enhanced) for Art Teachers Aligned with WI DPI Visual Art Standards



*Note: This resource is “in-progress” and available on my website. Feedback is welcome!!!