Institute *for*
ARTS INTEGRATION *and* STEAM

The STEM To STEAM Guide

Discover how STEAM Education and Arts Integration are increasing student success by up to 20% in less than a year by guiding student inquiry, dialogue and critical thinking.

Hey, I'm Susan

Founder of the Institute for Arts Integration and STEAM, Published Author, Inspirational Speaker

As an arts integration specialist and the founder of The Institute for Arts Integration and STEAM, I'm thrilled you've found your way to this resource pack.

STEAM (Science, Technology, Engineering, the Arts and Math) can seem daunting at first. But it doesn't have to be! Like with most other things, once you have a foundation in place and some clear action steps, you can make incredible strides in bringing STEAM to life in your classroom, school, or district.

This resource pack is meant to help you do exactly that. Inside, you'll find a set of resources designed to make this process clear, aligned, and intentional as an approach to teaching and learning. This guide is meant to help you weave STEAM concepts in and through your current curriculum. So it's not adding one more thing to your plate; it's connecting what's already there.

Susan Riley

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The STEAM Model

The pathway to STEAM is exciting, but can also be dangerous without an understanding of what STEAM truly means in both its intention and its implementation. Like its STEM predecessor, STEAM can stop short of its best manifestation without several core components:

✔ STEAM is an integrated approach to learning which requires an intentional connection between standards, assessments and lesson design/implementation

✔ True STEAM experiences involve two or more standards from Science, Technology, Engineering, Math and the Arts to be taught AND assessed in and through each other

✔ Inquiry, collaboration, and an emphasis on process-based learning are at the heart of the STEAM approach.

✔ Utilizing and leveraging the integrity of the arts themselves is essential to an authentic STEAM initiative

What is STEAM Education?

STEAM Education is an approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking.

Using STEAM education results in students who take thoughtful risks, engage in experiential learning, persist in problem-solving, embrace collaboration, and work through the creative process. These are the innovators, educators, leaders, and learners of the 21st century!

We are at a point where it is not only possible, but imperative that we facilitate learning environments that are fluid, dynamic, and relevant.

Our world is a beautiful, complex, and intricate tapestry of learning all in its own right. Integrating concepts, topics, standards and assessments is a powerful way to disrupt the typical course of events for our students and to help change the merry-go-round of "school."

It takes what we do when we open the doors to the real world and places those same practices in our cycles of teaching and learning. So we can finally remove the brick walls and classroom doors to get at the heart of learning.

"STEAM education uses arts integration as an instructional approach — and for experiential and inquiry-based learning — and provides multiple access points for students to engage in the creative process and meet objectives in all subject areas."

– EDUCATION COMMISION OF THE STATES

STEM vs. STEAM Explained

The STEM to STEAM movement has been taking root over the past several years and is surging forward as a positive mode of action to truly meet the needs of a 21st century economy. STEM alone misses several key components that many employers, educators, and parents have voiced as critical for our children to thrive in the present and rapidly approaching future.

Much has been proclaimed about the need for more STEM "programs" in our schools.

The logic is simple: the wave of future economic prosperity lies in a workforce that is well-versed in rising job markets like science, technology, engineering and math. Thus, there has been an increased investment in STEM initiatives in schools. **This includes (but is not limited to):**

- providing mobile devices for students (sometimes in the forms of computer labs, and other times in the form of 1:1 – a single device for each student)
- after-school STEM clubs or programs
- STEM curriculum, where projects using STEM practices
- are embedded
- BYOD initiatives (bring your own device)
- STEM days to encourage hands-on exploration within each of these disciplines
- robotics programs

While these initiatives are a wonderful start into the exploration of these four areas of study, the critical process of creativity and innovation is missing.

Students in STEM programs may have more experiential learning opportunities, but they are limited to only science, technology, engineering and math. Our economy requires so much more than an understanding of these areas – it requires application, creation and ingenuity. **STEM alone does not foster these essential nutrients.**

STEAM is a way to take the benefits of STEM and complete the package by integrating these principles in and through the arts.

STEAM takes STEM to the next level: it allows students to connect their learning in these critical areas together with arts practices, elements, design principles, and standards to provide the whole pallet of learning at their disposal. STEAM removes limitations and replaces them with wonder, critique, inquiry, and innovation.

Moving From STEM To STEAM

Ready to transform your STEM project into STEAM? Use this 5-Step Process to help.

01

Review the STEM project for the standard(s) and content area(s) addressed. What was the goal of the project or lesson? What product or process was developed? What essential question(s) did you explore?

02

Select an arts area that would make a natural connection with your original STEM project. Would visual art, music, dance, theater or media arts make the most sense? Select ONE artistic area that is the best fit.

03

Explore the chosen art form's arts standards and essential questions. Review the standards for your art form and look for naturally aligned standards to your original STEM project standards. Seek out common verbs such as "explore", "create", "investigate", etc as a starting place.

Discuss any standards you find as possible alignments with the arts teachers in your building if possible. Then, consider an essential question or point of inquiry that students can use for both the STEM and arts area for this project/lesson. Write this down and use it as a lever for creating your new STEAM lesson.

04

Align your STEM and Arts Standards and design a new assessment. Determine what project, process or outcome students can produce or share that represents their learning and application of both the STEM and Arts Standards you selected. Create a new assessment that equitably measures both standards.

05

Create a rebooted STEAM lesson. Determine how you can intentionally teach or provide opportunities to explore the STEM and arts standards simultaneously within your original project/lesson in a way that will enable students to reflect their learning in both areas on the corresponding assessment.

Implementing STEAM (The Easy Way)

Introducing The Accelerator:
The Ultimate Creative Classroom Solution for Every Teacher

Everything you need to infuse creativity into your classroom while still getting through your curriculum.

The Accelerator gives you access to hundreds of done-for-you arts integration and STEAM lessons, resources, and trainings in one convenient platform.

When you use the Accelerator, **you'll help students build creative skills while meeting academic requirements.**
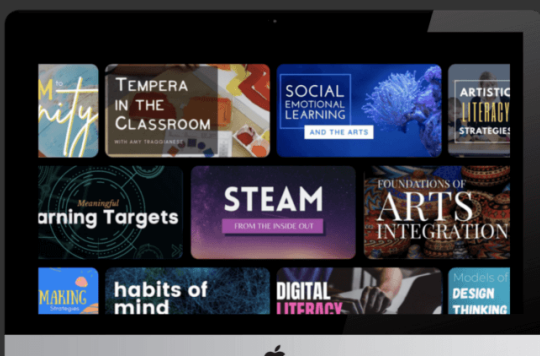
Unlimited PD

Full suite of accredited online courses and workshops. Use for required hours or CEUs for salary advancement

New workshops added each month.
($2,000 value included in your membership)

Done For You Lessons

300+ K-12 Arts Integration and STEAM lessons, assessments, and student resources.

Fully aligned to national standards. Can be used in-person or easily added to any LMS.

The Accelerator is your one-stop-shop for resources and streamlined trainings to make using arts integration and STEAM easy:

Reach Your Whole Child Initiatives

Increase student achievement, improve teacher retention, and engage all students through arts integration & STEAM.

Unlimited PD Hours

Take an accredited online course, attend a virtual conference, or watch a quick video workshop. PD hours can be used for relicensure requirements in most states.

Save Time

Unlock over 500 standards-aligned lessons, assessments, and resources. All addressing critical literacy, math, and science skills through creative, hands-on experiences.

Anywhere Learning

No matter where you are, you're covered. Everything is online and can easily be used at home, school, or anywhere in between.

Fully Supported

School teams receive a dedicated Success Guide who will tailor the program experience. Individuals can also personalize their learning.

For Teachers, By Teachers

We know what it's like to be in the classroom. Every lesson, course, and resource is created with you in mind. You're always our priority.

Connect Virtually Any LMS

The lessons, resources, and units in the Accelerator can be added to any LMS with the click of a button. You can add our items to Google Classroom, SeeSaw, Schoology, Canvas, Blackboard, and many others.

If You're Serious About Arts Integration and STEAM…

…then allow us to welcome you to the Accelerator. As a member of our community, you'll get the lessons and resources you want, and the continuous support you deserve.

You're more than a number to us. You're a member.

"

"I can't tell you how much time this has saved me. I have used the workshops for staff meetings, the courses for my required hours and the lessons have been a lifesaver. Thank you for such an amazing resource. It's like you know just what we need!"

– TAYLOR SHICOFSKI, STEAM Coordinator

Join us in the Accelerator

This all-inclusive annual membership is for K-12 teachers and leaders who want access to everything: **Curriculum**, **Resources**, and **Continuous PD** - all online.

GET ACCESS TO THE ACCELERATOR

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