

# **DISCOVERING STEAM?**

#### STEAM IS MORE THAN PAINTING ROBOTS

In recent years, Arts has been added to the STEM acronym (Science, Technology, Engineering and Math), making the term now known as STEAM.

The integration of Arts in STEM subjects allows for students to:

- gain a better understanding of the arts and standard curriculum, leading to a more holistic educational experience.
- become innovative leaders who can find more creative ways to solve today's global issues.
- incorporate design thinking, 21st century competencies, and real-world applications of learning in a fun environment to help them approach issues with a critical mind and a positive attitude towards problem solving.

By combining STEM and the Arts, we can prepare the next generation of leaders and problem solvers to make a positive impact on the world.

### WHAT IS ARTS INTEGRATION IN STEAM?

Arts Integration in STEM is an educational approach that incorporates the arts (visual arts, media arts, music, dance, drama) into the teaching and learning of STEM (Science, Technology, Engineering, and Mathematics) subjects and both the Arts and content are taught and assessed equitably in and through the Arts.



### **DID YOU KNOW?**

Females show interest in STEM around age 11 and loose it by age 15. Studies have shown that adding **arts integration** to STEM education, can keep students engaged and interested in these subjects.

## **TESTIMONIAL**

Antoinette has led thousands of students and staff at the Toronto District School Board (TDSB) through STEAM related projects with a focus on compelling young women to take greater interest in Technology and STEAM related careers. Her presentations have truly resonated with our students who have been energized to work through design thinking initiatives to solve social justice problems and excel in their programs. Antoinette is a phenomenal role model for the many young women she steps in front of. Her passion for speaking and presenting to all is clear from the minute you meet her. If you have a chance to work with her, do not hesitate.

- Michael Morris, Principal TDSB

## STEAM TALKS

A.Ellis Speaks, provides speaking engagements and customized handson experiential workshops for

- educators
- guidance counsellors
- parents
- k-12 students

We provide a framework for educators on how to develop lesson ideas through arts integration that align with the Ontario Curriculum and STEAM pedagogy.

#### **Educators wil:**

- · Gain a clear understanding of how to integrate Art in STEAM and how to assess both the art and content standard equitably
- Learn how all 4 Arts expectations (Visual/Media arts, Music, Drama, and Dance) can be integrated in the curriculum of STEM (Science, Technology, Engineering, Math)
- Introduce students to the diverse and varied STEAM careers available to them



- Gender Diversity in STEAM
- STEAM on the rise- What is A in STEAM and what is Arts Integration
- Full STEAM Ahead- STEAM through a diverse lense
- Design Thinking in STEAM
- Arts & Technology Careers in STEAM





66 As your Arts Integration Specialist, my role is to bring my industry expertise into the classroom and showcase how powerful it can be when Educators and Industry, collaborate through Arts *Integration.* 99



# ABOUT ACE & CO.



ACE & Co Ltd. is a recruitment firm and social enterprise focused on building a generation of strong women in Science, Technology, Engineering, Arts and Math (STEAM) while addressing the Sustainability Development Goal #5 - Gender Equality promoted by United Nations Development Program. We embrace the philosophy of 'development that balances the social, economic, and environmental stability while promising not to leave anyone behind' – including women and female children from vulnerable backgrounds.

