

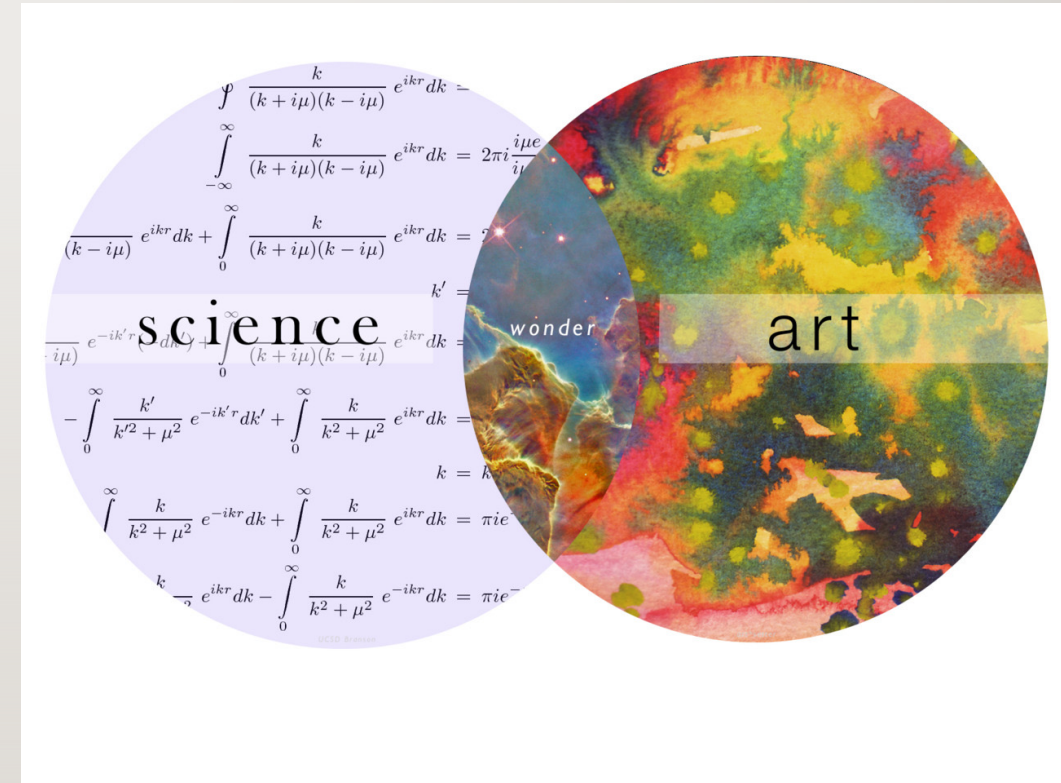
CRITICAL
INTERVENTION/PERSONAL
VOICE ACTION PLAN

BRIAN TESTA



THE MARRIAGE OF ART AND SCIENCE

- As early as the 1960's art programs have been challenged by the “increased emphasis on science in the elementary school”(Lembach, 1961, p. 8).



MISCONCEPTIONS ABOUT ART (LEMBACH, 1961)

- I. “Art is not concerned with truth”
- II. “Art is opposed to Science”
- III. “Art is not necessarily in a world of science”

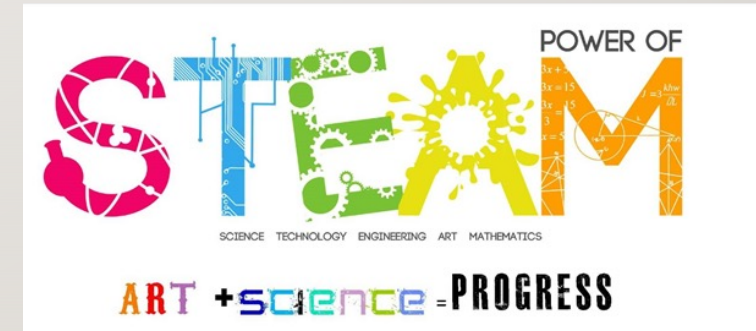


HOLISTIC LEARNING & INTEGRATION

- Integrating Science and Art together can lead to better understanding of the natural world (Petty, 1985).
- Petty (1985) “I find both essential not only to wildlife study in particular, but also to grade school education as a whole”(p. 6).
- Observation drawing allows for students to improve their drawing abilities, connect with nature, and explore an inter-personal connection to the subject.

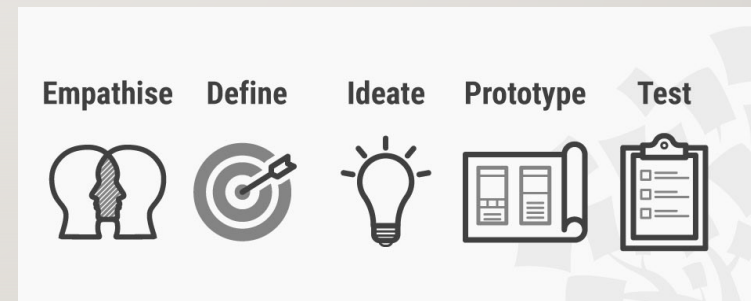
WHAT IS STEAM?

- **STEAM: Science, technology, engineering, art, and math.** The A in STEM integrates art and design with STEM sparking the interplay between left-brain convergent and right-brain. In a rapidly changing world, it is important that we educate global citizens who have the imagination and skills to conquer new challenges.



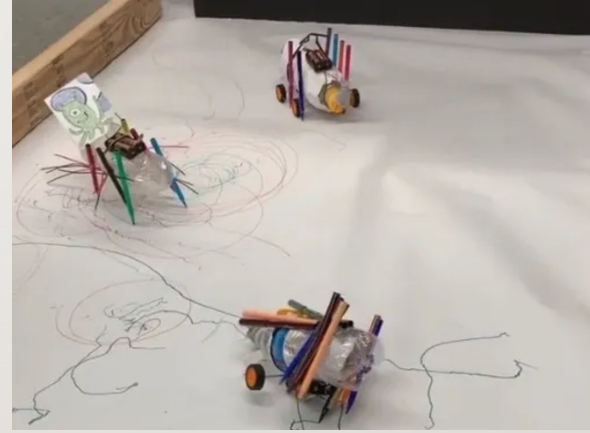
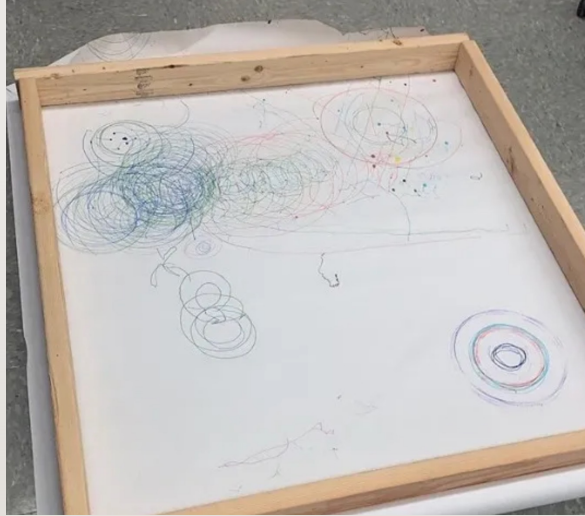
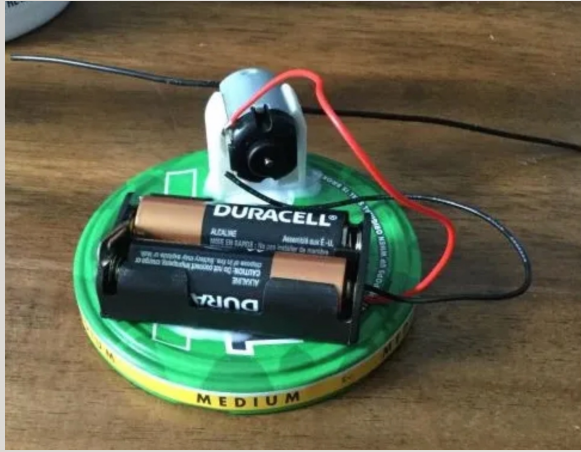
DESIGN THINKING AND STEAM

- The recent push for Science, Technology, Engineering, and Mathematics (STEM) education introduces a design process to science classrooms, some educators have also pushed for the artistic or creative process to become part of STEM education (Bequette and Bequette, 2012, p. 40).
- Design thinking is a cyclical process that first identifies a problem and works towards creating a solution.
- Students are encouraged to test possible solutions and to rework ideas collaboratively.



CONTEMPORARY PERSPECTIVES

- The artist/scientist archetype has been around for centuries and was best known during the Renaissance. (Hunter-Doniger, 2021, p.16).
- Students agreed that artists and scientists are both researchers who need to observe and explore to make their own discoveries (p.17-18).
- The children adopted the mindset of investigators and generated deeper descriptions than they would have by simply recalling their observations or looking them up in a library” (Hunter-Doniger, 2017).



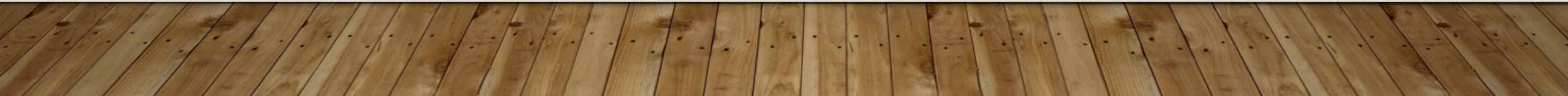
PROJECT #1: KINETIC ART/DRAWING MACHINES



PROJECT #2: HUMAN ACTIVISM POSTER



PROJECT #3 COLOR & ECOLOGICAL SYSTEMS



REFERENCES

Bequette J., & Bequette, M. (2012). A Place for ABT and DESIGN Education in the STEM Conversation. *Art Education*, 65(2), 40-47.

Hunter-Doniger, T. (2017). *Experiencing the arts: Creativity in education*. Kendall Hunt.

Hunter-Doniger, T. (2021). Forming Artist/Scientist Habits, *Art Education*, 74:2, 16-21.

Petty, C. (1985). Integrating Science and Art. *Science and Children*, 23(3), 6-9.

Lembach, J. (1961). Art and Science—A Challenge to Art Education, *Art Education*, 14:1, 8-10.

Samples, B., & Hammond, B. (1985). Holistic Learning. *The Science Teacher*, 52(8), 40-43.