STEAM in the Standards

Grade Level	STEM Process	Visual Art Standard CR = Creating; PR = Presenting; RE = Responding; CN = Connecting
K	Science Science Science	**VA.CR.1.Ka:** Engage in exploration and imaginative play with materials. **VA.CR.2.Ka:** Through experimentation, build skills in various media and approaches to art-making. **VA.CR.2.Kc:** Create art that represents natural and constructed environments.
1	Science Tech & Eng Technology Sci & Tech	**VA.CR.1.1b:** Use careful observation in preparation for making a work of art. **VA.CR.2.1a:** Explore uses of materials, tools, approaches. **VA.CR.2.1b:** Demonstrate safe and proper procedures for using materials, tools, and equipment while making art. **VA.CR.2.1c:** Identify and classify uses of everyday objects through drawings, diagrams, sculptures, or other visual means.
2	Engineering Engineering Sci, Tech & Eng Technology Engineering Technology	**VA.CR.1.2a:** Brainstorm collaboratively multiple approaches to an art or design problem. **VA.CR.1.2b:** Make art or design to explore personal interests, questions, and curiosity. **VA.CR.2.2a:** Experiment with various materials, tools, and approaches to explore personal interests in work of art or design. **VA.CR.2.2b:** Demonstrate safe and proper procedures for using and cleaning art tools, equipment and studio space. **VA.CR.2.2c:** Repurpose objects to make something new. **VA.PR.5.2:** Distinguish between different materials or artistic techniques for preparing artwork for presentation.
3	Tech & Eng Tech & Eng Sci & Tech Mathematics Science	**VA.CR.2.3a:** Create artwork using a variety of artistic processes, materials, and approaches. **VA.CR.2.3b:** Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment for a variety of artistic processes. **VA.CR.2.3c:** Individually or collaboratively construct representations, diagrams or maps of places that are part of everyday life. **VA.PR.4.3:** investigate and discuss possibilities and limitations of spaces for exhibiting artwork. **VA.CN.10.3:** Develop a work of art based on observations of surroundings.
4	Engineering Technology Sci & Tech Technology	**VA.CR.1.4a:** Independently brainstorm multiple approaches to solve a creative art or design problem. **VA.CR.2.4a:** Develop technical skills and explore art-making approaches. **VA.CR.2.4c:** Describe, and visually represent regional constructed environments. **VA.PR.4.4:** Analyze how past, present, and emerging technologies have impacted the presentation of artwork.
5	Science Engineering Engineering Engineering	**VA.CR.2.5a:** Develop skills in multiple artmaking techniques and experiment with approaches through practice. **VA.CR.2.5b:** Demonstrate quality craftsmanship through care for and use of materials, tools, and equipment. **VA.PR.4.5:** Define the roles and responsibilities of museum professionals explain the skills and knowledge needed in maintaining and presenting objects, artifacts, and artwork. **VA.PR.5.5:** Develop a logical argument for safe and effective use of materials and techniques for preparing and presenting artwork.
6	Sci & Eng Engineering Mathematics	**VA.CR.2.6a:** Demonstrate openness in trying new ideas, materials, methods, and approaches in making works of art and design. **VA.CR.2.6c:** Design or redesign objects or places that meet the identified needs of diverse users. **VA.PR.5.6:** Individually or collaboratively, develop a visual plan for displaying works of art.
7	Technology Technology Tech & Eng	**VA.CR.2.7a:** Demonstrate persistence in developing skills with various materials, methods, and approaches in creating works of art or design. **VA.PR.4.7:** Compare how technologies have changed the way artwork is presented and experienced. **VA.CN.11.7:** Analyze how response to art is influenced by understanding the time and place in which it was created, the available resources, and cultural uses.
8	Technology Tech & Eng	**VA.CR.1.8.a:** Document early stages of the creative process with images or words in traditional or new media. **VA.CR.2.8b:** Use tools, materials, and processes purposefully and demonstrate awareness of practices, issues, and ethics of appropriation, fair use, copyright, open source, and creative commons as they apply to creating works of art and design.
HS1	Sci & Eng Technology Sci & Tech	**VA.CR1.HS1a:** Use multiple approaches to begin creative endeavors. **VA.CR2.HS1b:** Demonstrate safe and skillful handling of materials, tools, and equipment; explain how traditional and non-traditional materials may impact human health and the environment. **VA.CN.10.HS1:** Document the process of developing ideas that reflect group concerns from early stages to fully elaborated work.
HS2	Sci & Tech Technology Science	**VA.CR.2.HS2a:** Through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in a chosen art form using various approaches. **VA.CR.2.HS2c:** Redesign an artwork, everyday object, or place in response to contemporary issues. **VA.CN.10.HS2:** Utilize inquiry methods of observation, research, and experimentation to explore community concerns through artmaking.
HS3	Sci & Eng Science Sci & Eng	**VA.CR.1.HS3a:** Visualize and hypothesize to generate plans for creating art or design that explores social issues. **VA.CR.1.HS3b:** Follow or break established conventions in the making of multiple works of art or design based on a theme, idea, or concept. **VA.CR.2.HS3a:** Experiment, plan, and make multiple works of art and design that explore a personally meaningful theme, idea, or concept.