



STEAM Initiative

CAMBRIDGE

We believe that STEAM habits of mind are critical to engagement, identity formation, and self-efficacy in young people. The Cambridge STEAM Initiative has aligned the Next Generation Science Standards (NGSS) science and engineering practices, mathematical practices (based on the Common Core Math Standards), and artists habits of mind to create the STEAM Habits of Mind.

STEAM HABITS OF MIND	WHAT DOES THIS LOOK LIKE?
DEVELOP CRAFT	<ul style="list-style-type: none"> • Learn how to use appropriate technologies in one's work. • Intentionally select appropriate materials to produce an intended aesthetic. • Freely explore how various materials work. Select appropriate materials to create a specific design.
ENGAGE & PERSIST	<ul style="list-style-type: none"> • Develop curiosity by asking questions and defining problems that are meaningful. • Plan and carry out investigations to learn more about the question. • Work with and learn from others. • Consider multiple approaches to a challenge without giving up.
EXPRESS	<ul style="list-style-type: none"> • Use creativity and imagination to create designs and representations that also convey an idea, feeling, or personal meaning. develop and use models to prototype designs. • Selects materials intentionally. Able to describe the idea, feeling, and/or personal meaning behind one's design or representation.
OBSERVE	<ul style="list-style-type: none"> • Make close observations of things that otherwise might not be noticed. • Find rules and patterns in their observations. • Collect visual, audible, tactile, and written data with attention to precision. • Makes close observations in investigations.
REFLECT	<ul style="list-style-type: none"> • Think critically about one's plan/design. share design and the process of making it with others. • Use what they have learned and apply it to approach new problems. • Explain the process of making with others.
STRETCH & EXPLORE	<ul style="list-style-type: none"> • Ask questions, explore playfully, and embrace the opportunity to improve as one learns from mistakes and accidents. • Learns from testing and others