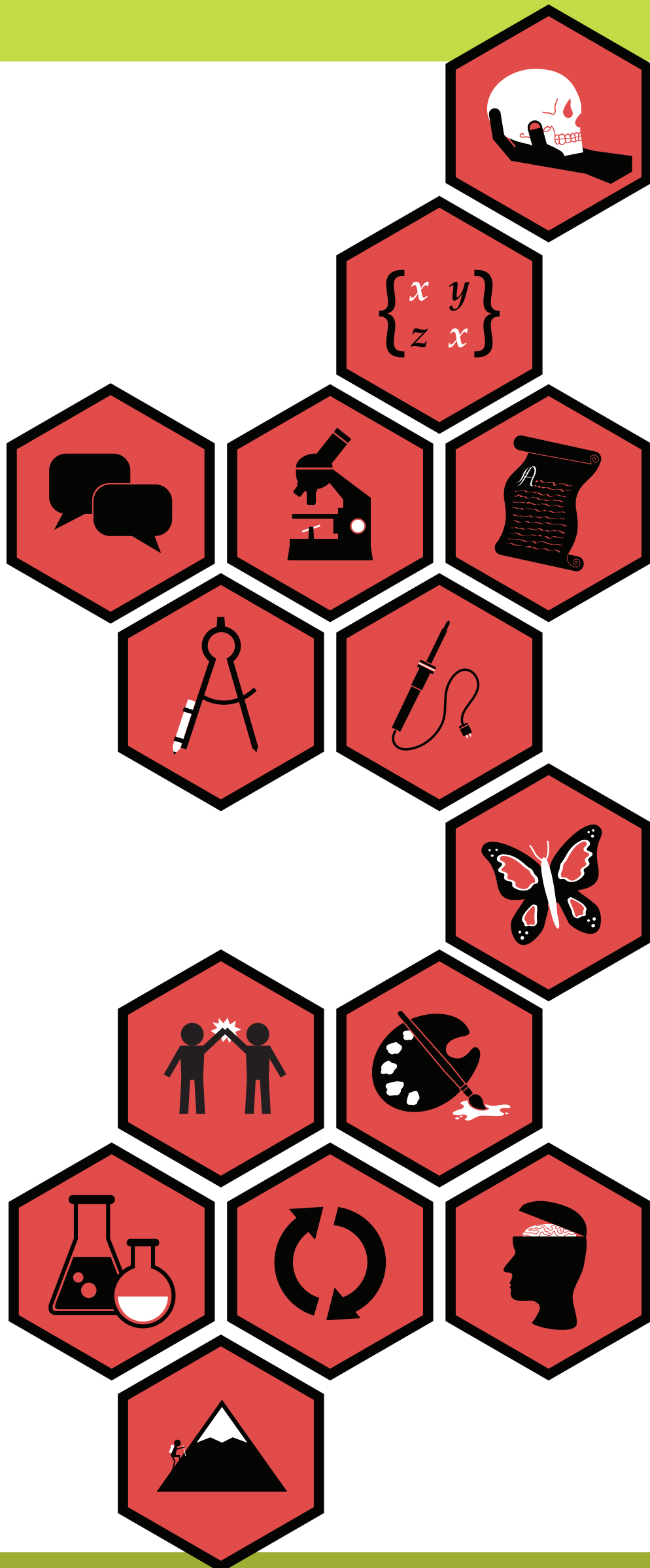


STEAM purposefully incorporates elements of multiple disciplines—especially in the arts and sciences—in order to develop learners who can address the complexity of real-world problems.



KNOWLEDGE

Human Condition

The learner understands how specific scientific or artistic developments impact humans and describes how love, loss, and purpose motivate scientific and artistic exploration.

Systems Thinking

The learner understands the roles individual components play when connected together and combines those components to produce a functioning system.

SKILLS

Communication

The learner communicates clearly with peers, mentors, and others about concepts, goals, decisions, and processes.

Data Analysis

The learner properly identifies, collects, and evaluates data relevant to solving or understanding a specific problem.

Prior Knowledge

The learner utilizes, applies, and recalls prior knowledge, concepts, and experiences and applies them to new endeavors.

Problem Solving

The learner identifies challenges, brainstorms solutions, and applies specific methods and knowledge from multiple disciplines to efficiently solve problems depending on the context.

Prototyping

The learner utilizes multidisciplinary making skills to execute ideas and designs. The learner uses age-appropriate methods to create or build a final piece or product.

DISPOSITIONS

Capacity for Change

The learner adopts useful habits of mind and mitigates unproductive behaviors.

Collaboration

The learner works amicably with others to overcome conflicts and differences of opinion to develop work products and solve problems. The learner recognizes individual strengths and weaknesses and different leadership styles.

Critique

The learner receives and understands constructive criticism and uses it to improve the next iteration of ideas, concepts, or products.

Experimenting

The learner demonstrates a willingness and eagerness to experiment with a variety of materials, exploring both form and function, to understand their physical properties and imagine their potential for innovation.

Feedback Loop

The learner frequently seeks appropriate feedback throughout the learning experience in order to properly gauge the development of new knowledge, skills, products, or outcomes.

Open Mindedness

The learner is open to constructive criticism, unexpected ideas, new ways of thinking, and growth. The learner is willing to re-evaluate personal ideas and opinions when faced with new information.

Perseverance

The learner works through challenges and does not give up when obstacles are encountered. The learner applies knowledge gained from failures to future endeavors.

Learn more about competencies and digital badges at remakelearning.org/competencies.



These shared competencies were developed through a community process led by The Sprout Fund with the generous support of The Hillman Foundation. Support for the Remake Learning Network is provided by The Grable Foundation, Claude Worthington Benedum Foundation, John D. and Catherine T. MacArthur Foundation, McCune Foundation, and The Pittsburgh Foundation.

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