The Maker Mindset

in a nutshell

The "maker mindset" originates from a global maker movement, which is a mashup of centuries old traditional crafts and skills with modern technology. Dale Dougherty, founder of Maker Media and the World Maker Faire, which draws hundreds of thousands each year, describes how the maker movement is shaping the next generation of engineers, designers, and innovators. Dougherty attributed the rapid expansion of the maker movement to the experimental, expressive, and sharable experience of the maker mindset.

Dougherty explained, "Making is simply starting with some idea in your head and beginning to work it out, bringing it out of your head, and making it through some sort of process through tools and materials. It is our own process, and it's really satisfying to take something that you weren't sure about and to begin acting on it. Making is something that we all do, not just a few, or just at work, but something we can do in our garage and community."

From https://www.learningsolutionsmag.com/articles/1931/we-are-makers-innovation-learning-and-the-maker-mindset

Qualities of activities using a maker approach

1. Personalized
2. Integrated (cross-curricular)
3. Students define the problem
4. Authentic experiences
5. Access to diverse tools and materials
6. Meets global demand for problem solvers, innovators, independent out of the box thinkers

Comparison Between the Scientific Method, Engineering Design Process, and Maker Mindset

	Classical Science Methods	Engineering Design as Applied in Schools	The Maker Mindset
Problem	Defined by teacher	Defined by teacher	Defined by student
Tools and Materials	Specifically provided	Narrowly defined	As unlimited as possible
Area(s) of Curriculum	Science	Typically only Science and Math	All subjects integrated
Order of Instruction	Instruction first, then activity	Instruction first, then activity	Activity first, supported learning on demand (flip)
Product	Close ended	Some flexibility within parameters	Open ended
Grouping	Partners established by teacher, usually based on behavior	Partners established by teacher, usually based on behavior	Grouping evolves based on student interest and skills needed to solve the task
Assessment	Unlike activity (ex. multiple choice)	Rubric, typically	Authentic practice and reflection

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From https://www.njsba.org/news-publications/school-leader/march-april-2017-volume-47-5/maker-mindset-can-transform-schools