

# Why Your Students Need a Makerspace - The STEM Maker Lab

3–4 minutes

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Trends in STEM

## What are the Benefits of a Makerspace?

Makerspaces have become a hot topic in education. While not a new concept, makerspaces are gaining traction for the many benefits they provide students as these spaces are integrated into classrooms and schools.

Makerspaces are designed to challenge students to create and learn through hands-on, personalized experiences throughout elementary, middle and high school. Here are a few of the many benefits of makerspaces.

### Providing the opportunity to innovate

Makerspaces foster innovation through hands-on experimentation. Participants have the opportunity to be creative and apply personalized learning strategies to make changes to existing concepts or develop their own ideas, methods or products.

### Creating real-world applications for classroom

## **concepts**

Hands-on learning takes the concepts taught through lecture, video or textbooks and allows participants to move from an abstract concept to a real-world understanding. Participants are then able to practice creating solutions to real-world problems.

## **Learning to take failure in stride**

In experimentation, testing, evaluating and modifying are part of the process. Participants learn how to make failure into a learning experience and not become discouraged or frustrated when something doesn't go as planned.

## **Exposing students to new opportunities**

Makerspaces provide the opportunity to learn something new, whether it is an alternate way to approach learning or utilizing new tools and resources to reach a solution.

## **Building critical thinking and problem-solving skills**

The ability to think critically and effectively problem solve should be established at a young age and cultivated over time. These skills are fundamental to and enhanced by the learning experiences in a makerspace.

## **Developing a wide range of 21<sup>st</sup> century skills**

21<sup>st</sup> century skills go beyond critical thinking and problem solving skills. These important skills include flexibility, collaboration, adaptability, oral and written communication, information literacy,

technology literacy, productivity, social skills, leadership, initiative and more. These in-demand skill sets help to develop young minds for future success.

## **Interested in learning more about helping students prepare for the future?**

Download our white paper, “[How to Prepare the Next Generation of Entrepreneurs](#),” to learn how to cultivate innovative risk takers who can embrace ambiguity and failure.