Makerspaces

Makerspaces are dedicated spaces where students can access low and high tech materials for creating and tinkering as they learn. The most important part of the makerspace is the attitude that students have good ideas, and with the right support, can turn those good ideas into interesting projects that support their learning in any subject.

Do I need a separate makerspace?

A makerspace does not have to be a new, purpose built space in a school. It doesn't even have to be a separate space. A makerspace can be as simple as a classroom center—or can be part of a library, or a reimagination of a science lab, art room, or shop class. However, if you have the ability to design and build a new makerspace, it can be powerful statement about your community's belief in student agency and modern learning.

Pros of a separate makerspace

- Gives the whole school access to expensive equipment.
- Consolidates materials and tools in one place for easier maintenance and support.
- Whoever is in charge of the makerspace is a resource for the whole school.
- Easier to secure expensive equipment or things that need safety instruction.
- Students have access to a wider range of resources outside of their grade level.
- Tools and technology can be shared across multiple classrooms.

Cons of a separate makerspace

- Students will not have immediate access to tools or resources.
- Sends a signal that "making" is a special thing that only happens in one place for limited periods of time.
- Teachers may feel that what happens in the makerspace is not connected to their classroom and curriculum.
- If there is no one person in charge of the space, it can be difficult to manage and organize properly.

Pros of classroom makerspaces

- Students have immediate access to tools and resources.
- Resources can be tailored to age and grade level.
- Teacher gets to know the tools and technology as they use them instead of handing off the projects to a makerspace teacher.
- Supplies in sight remind teacher and students that they can be used at any time.

Cons of classroom makerspaces

- Teachers may feel the need to restrict access if there are safety or security concerns.
- It would be expensive to buy a 3D printer (for example) for every classroom.
- Teachers may not know what to do with materials.

Some schools compromise by putting elements of the makerspace on carts that can be wheeled to classrooms as needed, or create a check out system for large kits and tools so they can be in classrooms as needed for a unit of study.

Many schools turn to traditional media centers, computer labs, and libraries as a space that can be repurposed. In many cases, the space will serve dual purposes, where the tried and true must coexist with the new. Libraries are especially conducive to makerspaces, offering time and space outside of traditional subjects and grade levels, and librarians who are adept at helping students.

Start with a vision

If you are planning to build a new makerspace, repurpose another space, or add making to your classroom, the best place to start is to create shared understandings with all stakeholders of both the "what" and the "why."

Some questions to answer:

- Why do we need this space? If this is a separate space, what will happen here that won't happen in classrooms, labs, shops, or art rooms, and vice versa?
- Why do we think this is a good use of time and money?
- What habits and culture do we want to build upon? What do we want to change?
- What are our values and expectations for the space and student experience, both long and short term?
- What will success look like?

The space design, the tools and materials inside the space, and the use plan for the new space should all come from the answers to these questions. For every school in every community, the answers will be unique.