



STEM-FOCUSED CLASSROOMS

Mt. Pleasant Middle School

WHAT DOES THE ROOM LOOK LIKE?

The room promotes hands-on, inquiry-based lessons where students are doing the work and asking the questions. This type of learning promotes a deeper, conceptual understanding of the concepts in the Iowa Core and Next generation Science Standards as well as promotes literacy across multiple disciplines.

Some of the features of the room include five whiteboard top, round, and movable tables, 30 roll-able chairs with student storage underneath, five flat-screen displays mounted on the walls, 10 iPads (2 per table), 10 laptops (2 per table), mondopad, flex cat sound system, 3D projector, 5 movable whiteboards, and a tinker corner with rubber mats. These features promote collaboration among groups and allow for students to have a space that can be rearranged to fit their lessons. This space also promote hands on inquiry-based learning because it provides the tools students need to be successful. The technology allows for outside collaboration with professionals in the field, breaking the barriers of traditional classrooms.

Some partnerships include the University of Iowa, Iowa Wesleyan College, the University of Northern Iowa, the Southeast Iowa STEM Region, and Great Prairie AEA.

WHO USES THE ROOM?

This classroom serves students in middle school grades 7-8 (11 to 14-year-olds). It is used for professional development by staff members and houses UNI Special Education courses for educators within the Mt. Pleasant Community School District.

HOW DO YOU USE THE ROOM?

In this classroom, students have the tools they need to be thinkers and problem solvers. Some of the tools this classroom offers are not only the technology (for research, gamification, collecting and recording data, communication, and engagement), but also the physical space that allows them to openly brainstorm with whiteboard tops on the tables. They can easily plan and share ideas with peers, and when all is said and done, they can still go back to the drawing board and make changes. When an idea or “ah-ha” moment comes to light, they have the space to test it out. This room allows students to have the freedom to be creative and it helps them to share their ideas.

Students are able to take on different roles in this type of learning environment. Whether they are the thinker, planner, task master, builder, designer, recorder, or skeptic etc., each student feels responsible and contributes to the good of the whole group.

WHAT ARE SOME TIPS FOR OTHERS INTERESTED IN DEVELOPING A STEM CLASSROOM?

Re-designed learning environments must have the learners as the central focus. Make a room that gives students options because all students learn differently. Allow spaces that they can go to work together or individually. In some spaces, it is a good idea to consider how you want to students to use the furniture or equipment. Classroom expectations need to be addressed early on since the environment is somewhat exotic to them compared to the traditional-style classroom that they have grown accustomed to using.

CONTACT INFORMATION

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For more information, visit www.IowaSTEM.gov/STEMClassrooms