ROMEO HIGH SCHOOL'S NEW ~~CLASSROOM~~ LEARNING SPACE.

"IF YOU WANT PEOPLE TO ACTUALLY DO DIFFERENT THINGS IN A SPACE AND ACT DIFFERENTLY, YOU HAVE TO GIVE THEM PERMISSION."

Introduction Article:

How we "do" education has changed immensely in the last decade. Pedagogy has evolved and the role of the teacher has shifted from the bestower of knowledge to the facilitator of it. Educators now flip their classrooms, encourage active, project-based learning and increasingly use online tools to deliver a more personalized education experience. These changes in teaching and learning have had a dramatic effect on how we think about and design classroom spaces.

"The old, more fixed, more static, more traditional classroom layout is becoming obsolete. It just can't support those new behaviors and activities and, in fact, gets in the way of them," says Sean Corcorran, general manager, Steelcase Education.

The word "classroom", itself, is becoming an outdated term. Many people prefer to say "learning spaces" and the vocabulary of education now includes words like "flexible," multimodal," and "collaborative."

"The [word] classroom has become so pejorative that the minute you say it it kind of boxes people's thinking," says Mark Thaler, an architect with Gensler, a global design firm. The term "learning space" doesn't come with any preconceived notions and shifts the thinking to what needs to be accomplished in the space. Design really derives from there.

Mobile Devices

Many of the changes we now see in education are made possible by the integration of technology. The rise of 1:1 and BYOD learning environments, especially, brings with it a host of challenges that simply didn't exist before.

The biggest challenge when it comes to devices is keeping them charged says Cindy Weinschreider, director of marketing Communications, Bretford Manufacturing Inc. "Tables with built-in power and other power-enabled furniture is necessary to prevent battery drain, which in turn, interrupts teaching and learning," she says.

Often, schools make the investment in devices and do not think about power requirements. Many U.S schools were built long before the laptop computer or the tablet existed and certainly before they were mainstays in education. School buildings are not designed to adequately support modern power needs and adding outlets to a room isn't as easy as it may sound. That makes furniture with built-in power all the more necessary. BYOD and 1:1 classrooms also need storage solutions that can both charge and sync devices. These solutions might be movable and on wheels or wall-mounted depending upon floorspace or the aesthetic you're trying to achieve.

If you were to walk into a brand new, state-of-the-art school you might see armchairs in the library with outlets on the side, tables with a built-in power supply and even charging stations similar to those in an airport terminal.

Flexible Design

Another hallmark of modern learning spaces is flexibility. Teachers and students use all of the classroom. They work in groups. Some students may huddle together using iPads to complete an assignment. Others may work together at the front of the room using an interactive display. Others still, may work with the teacher to receive further instruction in an area they struggle with. Every part of the room can be used for something different and it can happen at a moments notice.

"Technology has completely changed the way learning spaces are designed. With Smart boards, laptops and iPads, the flow of the classroom naturally shifts and teaching and learning becomes more flexible," Weinschreider says. "There has to be room to move and collaborate in this type of environment. Teachers need to easily create custom workspaces for class, group or individual activities."

According to Corcorran, this means a change in how classroom furniture is designed. He's seeing more casters on tables and chairs as well as seats that can swivel. Conversation moves about the room and content can be located on a number of screens or devices in today's classrooms, which creates an entirely different need.

"If the students are sitting in chairs that are hard to move, it's hard for them to follow the conversation and follow the content. It's not enough to just sit and look at the back of somebody's head," he says.

What Does the Space Need to Do?

When choosing products for your learning space, including furniture and technology, it's best to start first with an idea of what needs to happen in the room. For example, when Thaler was working on a recent project for Gensler, he had to design a lab for an independent school. He toured the school and the science buildings and gathered data about the school's needs. The result was anything but a typical lab space.

The room featured different zones. In one zone were lab benches where students could work. Another area featured an oval table where students could sit and engage in discussion. A third area included a projection surface where the teacher could set up the day's activity and then let students break away to work. While these types of designs offer more choices in terms of the activities that can take place in a room, they also present a new challenge.

"One of the tensions that's starting to emerge is the ability to create this flexibility also means that we have to have a little bit more space in our buildings. Desks in rows don't take up a lot of space," Thaler says. The same cannot be said for more modern, flexible designs. The other type of learning space that has become popular in recent years is learning labs or maker type spaces. Thaler describes these rooms as "rough and ready" with laser cutters and technology that allows for a hands-on learning experience.

Design and Psychology

Classroom design isn't all about aesthetics. It may surprise you to learn that design and layout have a tremendous ability to impact the way people behave in a particular space. Corcorran quotes Dr. Lennie Scott-Webber, director of Education Environments at Steelcase, when he says, "If you want people to actually do different things in a space and act differently, you have to give them permission." In other words, if you want students to collaborate, give them an environment that encourages it. Students are conditioned to know how to behave when they enter a typical classroom. They're supposed to sit down, be quiet and listen to the teacher. They're not supposed to talk to one another, move around the room or take part in group activities.

"If you go into a classroom where the tables and chairs are movable and one day they're in a circle and the next day they're in clusters or teams, that's a different condition," Corcorran says. "It gives you permission through design and changes how you're hard wired to think and act." Thaler, too, sees the impact an environment can have on the minds of students.

"One of the things we know is that when students are engaged in their activity and they feel comfortable in their space, deeper learning happens," he says. It's important to remember that engagement does not correlate to achievement. Thaler calls that claim a "slippery slope," but says "we do know that when students are engaged and teachers are engaged the dynamics are much more positive."

The individual elements of a classroom space work together to create an atmosphere that can either inspire students or stifle them. With that in mind, it's easy to see what sort of negative effects a traditional classroom may have with its rigid design and structure. Active learning and true engagement require a far more flexible environment, one that gives students room to explore and succeed.

Winske, Chrissy. "The Latest Trends In Classroom Design." K-12 Tech Decisions. June 9, 2015. Web.

Challenge:

Create an interior design board for a new high school _____ *(you pick the subject area)* ~~**classroom**~~ **learning space that would inspire and create active learning.**

Final Requirements:

16"x 22" Interior Design Board that includes/ addresses the following:

- ❑ CAD drawn floor plan with "furniture" shown. (Plotted to scale, correct titles, notes and dimensions) *Color is optional.*
- ❑ Pictures of furniture, "desks", "chairs", etc. and any other "accessories".
- ❑ Showing/ allocating an area for a "learning lab/ building space" relating to the type of classroom you are designing for.
- ❑ Showing/ explaining the flexibility in movement of students and furniture.
- ❑ Material and color samples for flooring, walls, ceiling, furniture etc.
- ❑ Technology used in the learning space. (What type of devices? How can students charge them and use them without being a distraction or inconvenience?)
- ❑ Lighting- both natural and artificial.
- ❑ *Security-optional*
- ❑ *Perspective rendering/ sketch. - Optional*
- ❑ Design explanation/ mission statement.
- ❑ Items are labeled, keyed, organized, etc so someone looking at your board can fully understand it without you having to be there to explain it?
- ❑ Board Title
- ❑ Designed By: Your Name on the front.

Background Information:

- Do research on new classroom design trends, 21 century classrooms, active classrooms, etc.
- Research examples of interior design board layouts and review classroom examples. *Hint: Google- "interior design board presentation"*
- Use AutoCAD or Revit for CAD Drawings, plus any other programs you would like.

Schedule

Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
May 9th Research/ planning	May 10th ***NOCTI TEST*** Research/ planning	May 11th Furniture/ Picture Gathering- Floor Plan Design/ Draw	May 12th Furniture/ Picture Gathering- Floor Plan Design/ Draw	May 13th Furniture/ Picture Gathering- Floor Plan Design/ Draw	Go to design stores, building stores for ideas and possible samples.
May 16th Material Selections	May 17th Material Selections	May 18th Material Selections/ Final Board Layout	May 19th Material Selections/ Final Board Layout	May 20th Material Selections/ Final Board Layout	Finish up board if not completed in class.
May 23rd Boards Due at beginning of hour- Portfolio Pictures & Presentations.					