

## Science labs in need of help

Written by Holyoke Enterprise

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Research shows, and many students would agree, that students learn best by doing. So when the science lab was identified as an area of need in the facilities plan, we were thrilled for the impact an updated science lab would have on the students in Holyoke.

As a science department we strive to give students meaningful hands-on experiences. These hands-on experiences are essential for Holyoke students to be competitive when applying for college or in the workforce. Hands-on experiences also ensure that students are developing 21st century skills, one of the goals of the Holyoke School District. These imperative skills include critical thinking, collaboration and self-direction.

The current lab facilities at Holyoke JR/SR High make it difficult for students to have the most meaningful lab experience.

For example, out of 20 gas valves, eight of them are functioning, so students often have to be paired in much larger groups. These larger groups make it difficult for students to observe the lab and for them to have significant, constructive conversations about their observations.

Many of the sinks do not drain properly; consequently several groups have to share a sink, which causes crowding and it takes more time away from the actual lab experience.

Finally, one of our biggest concerns is safety. The current lab room does not provide enough space for the planned consolidation of classes. Currently, the lab can safely handle a class of 13. Future class sizes will be up to 18 or 20 students, thus making it very crowded to be handling chemicals and working around burners and glassware.

With updated science facilities, students will be able to take labs beyond a test tube and a Bunsen burner. They will be able to use an updated facility and technology to create authentic experiments to test the world around them and apply their knowledge to meaningful situations.

For example, students studying acids and bases in chemistry would conduct a field test in which

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they determine the acidity or basicity of the soil in pastures and fields in the area. Students could also study the wind patterns in the area and create a plan for utilizing wind energy, or students could use the updated facility to determine the amount of calories in the foods they eat and relate this information to the amount of energy their body consumes.

With the support of 3B it would be possible for the science facilities to be updated and, as a result, students in the Holyoke school district will be provided with safe, meaningful and enriching hands-on experiences, which will ensure that all kids have the opportunity to learn about the world around them and grow in their abilities to problem solve, collaborate and think critically.

Respectfully,  
Ashley Clayton  
Tracy Trumper  
HHS Science