

November 13, 2017

To Whom It May Concern:

Legend Suspensions supports Meade School Districts Workforce Development Grant Initiatives. Meade School District has been progressive in their efforts to support students in workforce training. We are pleased to support this worthy endeavor.

We currently partner with Meade School District in several ways. We participate in the Career Fair, Career Day, and Student Apprentice program. We currently have a full time employee that we hired that was in the apprentice training.

The projects and workforce training that Meade School does is very worthwhile and has our full support. Please feel free to contact me if there are other ways we can assist.

Sincerely, Sheryl Eisenbraun Legend Suspensions



"REMEMBER, MEN WILL BET THEIR LIVES ON THE WORK YOU DO."

13 November 2017

To Whom it May Concern.

I wish to share my thoughts regarding an ambitious project started approximately 3 years ago by Mr. Cyle Miller of the Sturgis Brown Highschool (SBHS) here in Sturgis, S. Dakota. Cyle is the director of the machinist's trades program at the school.

The direct/immediate benefit of SBHS's and Cyles efforts are still too early to tell as the program is so new. Most of the students involved are still in school so the impact on local businesses has not been yet realized. That said, my business has enjoyed some short-term tangible benefit. For just over a year now I've employed one of Mr. Miller's students part time. Should this young man continue to pursue this trade upon graduation, I plan to offer him a full-time position.

I am of firm belief that continued development of the course will further metastases into more young men and women ready for the work force. It's said that it takes a village to raise a child. I am of firm belief this is true. My business has donated considerable resources to aid in this programs success. While this may be viewed as a noble act, I must admit it saddens me that higher powers fail to take as active a role in promoting the trades. I find it absurd to encourage a high school senior to immediately bury himself into 5, 6, 7 figures worth of debt in the pursuit of higher education. The apprentice approach has worked for centuries because it puts the relevant tempo of industry in the hands of the student in real time. Formal education simply does not function at that pace.

Soiled and calloused hands correlate with honest work. A machinist must also be able to function in a cerebral manner. This is not a trade where poor math and communication skills go unnoticed. Today's manufacturing equipment costs start in the hundreds of thousands and easily reach 7 figures. The technology is extremely advanced and complicated. While Sports certainly have their place in formal education, most students will never enjoy a career in the NFL.

Mr. Miller's efforts reflect great credit upon himself and the School he represents. Cyle has been able to introduce a novel and modern approach to this program. One that is industry driven with employable graduates. He's done this on a very, very modest budget. The Oil, Gas, and Mining industry all depend on machinists, welders, and fabricators to function. Its presence here is immense. Western South Dakota also has a very large Firearms Manufacturing presence requiring the same level of proficiency. It stands to reason that educating and building a locally sourced labor pool only adds to the long-term growth and potential of South Dakota.

Thank you.

Chad Dixon

President/Gunmaker

LRI



November 6, 2017

Coleen Keffeler, CTE Coordinator Sturgis Brown High School 12930 East Highway 34 Sturgis, SD 57785

Dear Coleen:

On behalf of the Board of Directors of the Sturgis Economic Development Corp (SEDC), please accept this letter of support for Sturgis Brown High School's (SBHS) nomination by the SD Dept. of Education for SBHS's machining program/manufacturing cluster for the Advance CTE Excellence in Action Award.

SBHS's partnership efforts in maintaining effective employer and business partnerships is readily evident starting with when SBHS's faculty and administration met with local manufacturers and SEDC to understand local workforce needs. This resulted in SBHS implementing the machinist training program, creating youth internship opportunities, and developing the incubator classroom.

Since organizing the first "Reverse Career Day" in 2013 after meeting with local manufacturers, the results have been remarkable. This successful workforce initiative is held annually and allows 25 students and SBHS faculty to tour manufacturers in the Sturgis Industrial Park. Students apply for the opportunity to view manufacturing processes and query the owners on any career-related matter.

Since 2013, several meetings have been held with the industrial park manufacturers, SBHS education representatives, and SEDC to discuss additional ways to partner to address the dire shortage of skilled machinists. During this process, it was determined that SBHS did not have adequate physical space to support their proposed new CTE machine shop and classroom. Since SEDC was in the process of constructing an industrial incubator building in the Sturgis Industrial Park, SEDC entered into a Memorandum of Understanding with the Meade School District to designate nearly one-third of the new incubator building for machinist training. The SBHS machinist class started in Fall 2015 with 15 students and expanded to serve 25 students each semester, and now offers both basic and advanced courses.

Additionally, SBHB developed curriculum to provide student internships with Sturgis Industrial Park manufacturers in Fall 2014. This workforce training initiative is a partnership with the Meade School District, Western Dakota Tech, private industry and SEDC. SBHB students are required to apply and interview for the internships, which rotate through the businesses during the semester. To date, at least five former SBHS machinist students are employed full time with Sturgis Industrial Park manufacturers.

Metals-related manufacturing is a huge economic driver for the Rushmore Region. The role of Sturgis Brown High School in the development of skilled training needs for this industry segment is instrumental in supporting healthy economic growth for our jobs, our children, and our future. SEDC proudly supports the efforts of Sturgis Brown High School in this meaningful endeavor.

Sincerely,

Pat Kurtenbach President

Pat Kurtenbach

P.O. Box 218 • Sturgis, SD 57785 • Phone: 605.347.4906 • Fax: 605.347.5223 • www.SturgisDevelopment.com

To whom it may concern:

I am writing this letter regarding my former high school machining teacher, Mr. Cyle Miller. Mr. Miller's program and teaching had a significant impact on my life after school. Thanks to his teaching and the time I spent under him, in the machine shop, I gained a passion for machining and went on to work at a local machine shop. I have two younger siblings whom have also been taught by Mr. Miller and both have found him to be a kind individual and a good teacher.

Mr. Miller ensured every student was given equal opportunity to succeed in his class. Using various teaching tools such as power points, demonstrations, and hands-on activities, he was able to cater to all different types of learners, from visual to kinesthetic. He also did a lot of assisting individually, helping students when needed, demonstrating his expectations, and so on. While he held us to certain standards, Mr. Miller also allowed us to be creative with how we wanted our project to come out and how we wanted to get it there. Instead of expecting every single student in the room to think the same way and complete every project exactly the same, he allowed us to use any of the techniques he had taught us or to come up with our own to reach the desired end result. This taught us to think for ourselves and use our imagination instead of simply following exact procedures repeatedly throughout the course of the class.

Though allowed certain freedoms to complete assignments, we were expected to follow the safety requirements at all times while we were in Mr. Miller's machining shop. Safety goggles were required at all times and were just the beginning of the steps taken towards a safe learning environment. All students were required to complete OSHA safety training before allowed to use any machines or work in the machining room.

Overall, I enjoyed my time in Mr. Miller's classroom and learned a lot under the care of this very adapt teacher. Thank you for your time and for considering Mr. Miller.

Sincerely,

Tristan Zook

Truster Bak

Learning Shifted to Industrial Park

STURGIS, S.D., 21 March, 2017 -- For the fifth year, learners have gained first-hand insights and knowledge from local industry and business leaders in Sturgis, S.D., during the Reverse Career Fair.

Organized by Pat Kurtenbach, Executive Director of the Sturgis Economic Development Corporation, and SBHS educator Coleen Keffeler, the event began just before the initial school day bell rings, ending at 1:00 p.m., which allowed students to return to their last classes.

"Pat works with the businesses and takes care of lunch and I take care of the school end," Keffeler said.

Following closely behind the annual Career Fair, which is also organized by Keffeler and held in the high school gym, the Reverse Career Fair provides a different perspective geared toward individuals interested in the industrial workforce.

"The businesses were not

able to participate in the Career Fair held in the West Gym and Pat thought it would be better to bring the students to the businesses to see the machines/ equipment used plus make them aware of the career opportunities right in our own back yard," Keffeler said.

"What I loved most about the trip is that I got to see how the men worked in the businesses and I got to see how similar it is to how we work in welding," Daniel Kline (9) said.

"The purpose of the career fair is increase awareness of good-paying jobs/career opportunities available in Sturgis. Five years ago, the comment was made that the Industrial Park is well-kept secret. Students, parents, educators need to know they don't have to leave Sturgis to find a fulfilling, good-paying job.

Kody Cox (11) said, "I went on the reverse Career Day trip, because most the types of jobs that are in our industrial park are something that could be a future career for me, or that I can pursue after retirement as a hobby."

"Several of the businesses have taken youth internship students in the past AND those youth internship positions have turned into summer and/or full time employment," Keffeler said. "It's a 'grow your own' philosophy. If you have trained someone on your business procedures and that person likes the field and wants a job, it's a winwin for both parties."

Throughout the 2017 Reverse Career Fair, participants visited six locations, which included Rasmussen Mechanical Services Heating & Industry Services (RMS), HiQual, Horizon Machine, Bar-Sto Precision Machine, Landsport and SBHS's Industrial Park Machining Classroom.

Sending their team members to locales as far away as Las Vegas and Georgia, RMS spokesperson Ryan Aldren said they are diversified. "If it makes heat or cold," he said, " we probably do it."

Aldren, 2003 SBHS alumnus, graduated from Southeast Tech in 2005 with a two-year degree in HVAC. He encouraged listeners to attend a technical school; however, he also said there is a great deal of on-the-job training.

RMS employs 13 individuals out of the Sturgis shop. Four of them are full-time office staff and the rest of them are working out of the building.

Purveyors of livestock handling equipment and specialty items, HiQual is the newest division of Sioux Steel, a company that made its name in grain bins. Production manager Brian Burkhalter said, they currently have five employees and hope to increase that number to twelve when they finish restructuring.

According to Burkhalter, they hire a number of welders. Individuals most qualified for the job should be "dependable and teachable," he said. "Show up with a good attitude and I'll teach you anything in the world."

Individuals who find employment success at Horizon Machine will have "an eye for detail, fine measurements and note tool chips," Horizon Machine shop supervisor Tim Ferrell said.



Reverse Career Fair participants gather for a final photo before heading back to work and school. Back: Sturgis Economic Development board member Paul Bisson, Caleb Bates (12), Tyler Gross (10), Daniel Kline (10), Chris Murray (10), Isaac Doten (11), Ian Reicher (11); Sturgis Economic Development Corporation Executive Director Pat Kurtenbach, Daniel Walter (10), Tom Shaw (11), Jaren Puhlman (11), Thomas Thiele (11), Ivan Masters (11), Covey Ulmer (11), William Sedlak (11), Kody Cox (11), Andrew Olsen (11); Catie Twichell (11), Devin Wood (11), Nicole Bartlett (11), Ellishiann Last Horse (11), Ash Cox (10), Alex Bear (10), Mark Burkhalter (10), Dylon Colvin (10), Jacob Berghorst (12) and Nolan Berger (10). *photo by staff*



6 March 31, 2017

Horizon Machine crafts accessories for shooting or for firearms, using aluminum, titanium, stainless steel and chromalloy. Their ten employees use a variety of CNC machines. The two staff members in the back room, however, utilize machines that can complete a tool process from start to finish. According to Ferrell, they "never have to move parts from one machine to another."

Bar-Sto Precision
Machine owner Irv Stone,
who grew up learning the
business from his father,
Irving Stone, said their
company manufactures
precision pistol barrels and
custom gunsmithing. Stone
showed the students around
the facility, showing them
the process by which gun
barrels are drilled, honed
and then through a detailed
process, made ready for new
owners.

According to Stone, an aptitude for mechanical math and a desire to make items by hand is sought for applicants. "Experience," he said, "is a plus."

Landsport spokesperson John Toth, 2003 SBHS graduate, encouraged students to pay special attention to their main core classes, because the end result is in the details. "Pay attention now," Toth said about math courses, such as Algebra and Geometry. "It makes life easier later on."

The aluminum ramps, a welding process pioneered by Landsport, are put through heavy testing, Toth said, "to prove they do what they should." He said they put enough pressure on the ramps to bow and then eventually break them to find out just how much pressure the ramps can take

Once the ramps have been put through a lengthy

process, they are sold around the world even as far away as Russia and Dubai.

There are 19 full-time employees at Landsport, a few who work nights.

According to machining instructor Cyle Miller, two recent SBHS graduates have found employment in Sturgis Industrial Park. Jordan Hunt works at Dakota Arms and Tristan Zook works at Horizon.

Dalton Smith (11), who still attends SBHS, is employed at Long Rifle, Inc.

Miller said he has two main objectives for his machining students: expose them to machining for a future hobby and expose them to the skills they would need for careers in the field "to be ahead for post secondary."

Typically there are 12-20 students in each of the semester-long classes, which run 7:30-9:35 a.m.

"Tools available will allow individuals to accomplish what a CNC (computer numerical control) does only slower," Miller said.

With the use of tools in the Industrial Park Classroom (IPC), learners learn how to create a variety of products, including a top and an air motor for Machining 1 and a vacuum motor for Machining 2. In addition, Individuals gain knowledge in rasterized, vector and 3D images as they design and print out work.

"I wanted to go because I am interested in a career in welding, so I want to look at different companies that were in that field," Thomas Shaw (11) said. "If I could choose I would work at HiQual because they do a lot of welding and they build cattle working equipment, which is something that I am very familiar with on the family ranch."

Kline said he loves his welding class and he's really interested in that field. "I didn't know there were so many industrial buildings in Sturgis," he said. "I am going to set higher goals for Algebra now because I didn't realize that it was such a need in these industries."

At the end of the tour, students gathered at Iverson Construction for a pizza lunch sponsored by the Sturgis Economic Development Corporation.

Wrapping up the event,

Kurtenbach said there are 177 manufacturing jobs in Sturgis. Average earnings for these positions is \$44,721.

"I hope you are connecting the dots with what you're doing in school," she said, "and what you saw today."

According to Kurtenbach, all four tech schools in South Dakota have free scholarship opportunities if an individual is willing to work in the state for three years after graduation. It's called the Build Dakota Scholarship.

"I will follow my classes for welding and mechanics more that I was," Thomas Thiele (10) said, "and I would like to thank the school for letting us go on the trip. I had a lot of fun and will use the knowledge I learned in my future."



Stopping at the Industrial Park Classroom during the Reverse Career Fair tour meant Ellishiann Last Horse (11), Tyler Gross (10), Chris Murray (10), Tom Shaw (11), Daniel Walter (10) and Dylon Colvin (10) gain first-hand insights shared by machining instructor Cyle Miller. <code>photo by staff</code>







March 31, 2017

Career Fair Caters to Curious Cruisers

STURGIS, S.D., Mar. 2017 - Over 140 adults representing 91 career fields, post-secondary programs, and represented branches of the military were present at the tenth Annual SBHS Career Fair.

Students from SBHS, Douglas, Lead/Deadwood and Newell High School participated.

Advisory council members, comprised of Cheryl Reiniets from BHVAMC, Alenda Derby from Sturgis Regional Hospital, Barb Riemer from First Interstate Bank, Ken Meirose from Black Hills Energy, Rainee Curtis from Sturgis Area Chamber of Commerce, SBHS counselors and administrators, and organizer Coleen Keffeler, extended invitations to participate to over 100 businesses, post-secondary institutes and military recruiters.

The Career Fair originated after school personnel, former Principal Jeff Simmons and Keffeler,

attended a High Schools That Work meeting, which was sponsored by the SD Department of Education and incorporated business representatives from the community, including Derby and Kelly Munroe Keffeler representing Wells Fargo Bank.

"A key discussion point was helping students understand career options and how their high school education is a key component to success in future education/training and careers," Keffeler said.
"Alenda and Kelly came up with the idea of the Career Fair on the drive home. Businesses want to be involved and assist schools, but sometimes the invitation or clear expectations of what is needed was missing.

The Career Fair exposes students to career opportunities available to them in South Dakota, as well as post-secondary options - military, technical school, community college or 4-year universities.

"In 2007, we had 26 individuals representing 26 career/businesses," Keffeler said. "Look how we have grown!"

Responses from businesses, community members and students reinforce the idea that the Career Fair benefits both the high school and the area.

"I visited the Air Force, Marines and Sturgis Fire Department booths,' freshman Kaiden Zook said, "because I have an interest in helping my community and country. These questions will help me in the future by giving me goals to achieve and help me get a job."

Justin Green (9) said the career fair was helpful to him because it peaked his interest in the engineering field as well as "numerous other jobs."

"This career fair was help to me because it made me think about what I could do when I am out of high school," freshman Courtney Hobbs said. "The career fair also gave me ideas [and]

was a help to me."

"I visited the VAMC," junior Cody Cline said, "because I wanted to learn more about a career in pharmaceuticals. While speaking with the representatives, I learned that SDSU has a pharmacy program, as well as an opportunity to be automatically accepted for an interview to get into the program. Furthermore, I learned that pharmacists can work in both hospitals and public settings. With their suggestions, I decided that I will take organic chemistry next year, as well as in college."

Black Hills Energy employee and SBHS alumnus Tyler Puckett said the best part of the career fair is to "inform kids about what we do as the energy

provider."

Black Hills Energy employee and SBHS alumnus Steven Dunn said he sees his role as a community member as setting "expectations for employment before students are in a career."

SD National Guard Staff Sgt. Chas Larsen said he favors such school-related endeavors "to mentor students to do the best they can at school."

Nurse Randee Matz from Sturgis Regional Hospital said the reason she participates each year in the career fair is to teach "kids about the great opportunities that our community has to offer." Matz is an SBHS alumnus.

"I enjoy being a resource to the community," Wells Fargo Bank employee Jenette Christ said, " I encourage students to actively learn in all areas of their lives."



Representing USD Health Sciences, Tony Long explains the program opportunities to freshmen Jazlyn Kleinschmit-Millhouse, Karissa Mills, Hailey Hackett and Breanna Paul. photo by staff

March 31, 2017

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Meade School District SBHS

Mrs. Froelich's Class Site **Humans of SBHS**

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Contact Information

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News >

Capital for a Day

posted Jun 27, 2017, 12:53 PM by Teresa Froelich



Governor Dennis Daugaard listens as machining instructor Cyle Miller explains what skills students gain through the program and how the community pulled together to make the program happen in conjunction with the Governor's CTE Grant and Workforce Education Grant. photo by Coleen Keffelei

STURGIS, S.D. -- June 6, 2017, became a significant day for individuals living in and or around the Black Hills area this year since Sturgis was named "Capital for a Day" by Governor Dennis Daugaard.

According to sd.gov, "In the 1990s, Governor George S. Mickelson started a new tradition in South Dakota called 'Capital for a Day.' Gov. Mickelson would travel to a community and issue an executive proclamation declaring that town as South Dakota's Capital for a Day. He would spend the day touring the town, taking with people of the community and getting input from local leaders."

Continuing the tradition begun by his predecessor, Daugaard "decided to continue the Capital for a Day tradition because it gives him the opportunity to hear from South Dakotans. Activities for the day typically include a main street walk, business tours and a community social. The Governor also holds roundtable meetings with community leaders to discuss prominent local issues."

Superintendent Don Kirkegaard said. "There are a lot of good things going on in Sturgis and the surrounding areas, so we were a good choice. The last time we were the Capital for the Day was in the Rounds Administration."

Individuals attending the "Capital for a Day" event included, Daugaard, District 29 Representative Gary Cammack, District 29 Senator Larry Rhoden, County Commissioner Galen Neuschwander, Sturgis City Manager Dan Ainsle, SEDC President Pat Kurtenbach, Bryce Richter - School Board president, Meade School District personnel, including Kirkegaard, Sturgis Brown High School Principal Pete Wilson, Assistant Principal Chad Hedderman, Activities Director Mike Paris, SBHS instructors Cyle Miller and Coleen Keffeler, Sturgis Elementary instructor Christy Hedderman, governor staff members, Ron Rosenboom (SEDC) and Sturgis Area Chamber of Commerce Executive Director Heidi Kruse among many other attendees.

After Kirkegaard introduced the governor and school personnel present, discussion ensued regarding how almost all of the machines in the building were purchased with grant funds made available by the governor through the Governor's CTE Grant and Workforce Education Grant.

"The Governor is very interested in workforce development and looked at our machine class as a good example. We also received significant state (add funds) contributing for the class and I assume they were looking to see if it was money well spent," Kirkegaard said,

The partnership between the school and Sturgis Economic Development Corporation was shared with individuals present for the event.

Keffeler thanked the governor for providing the grant opportunities and shared additional information regarding the partnership, including the Reverse Career Fair.

At the opening ceremony, Kirkegaard said Governor Daugaard commented about SBHS being a leader in CTE in the state for over 20 years.

Wilson presented the governor with a pen made of deer horn, crafted by Miller. The pen is similar to an assignment he gives his students.

Miller discussed the program and answered questions, sharing insights about the partnerships with local businesses, including how Legend Suspension donated one ton of scrap aluminum for student projects, Long Rifle, Inc., donated a saw, DakotaArms also donated work tables and Scull Construction working in cooperation with SDSMT also donated tables.

Kirkegaard, Wilson and Miller shared the importance of the alternative certification process was in securing Miller as an instructor.

Kirkegaard shared how all students are OSHA certified before participating in any shop classes and Keffeler added information regarding the National Career Readiness Certificate assessment.

Governor Daugaard commented on the importance of different paths to showing competency in a profession.

"There are several different types of alternative certification avenues," Kirkegaard said. "For a high school chemistry teacher, etc., you can seek an alternative certification certificate by having a BS in the area be taught, take several credits in pedagogy, Indian Studies, etc., pass the Praxis and get certification. For a CTE instructor, you can also show that you have hours worked in each field that you are instructing and take several required courses and become certified. You do not need a BA/BS to become certified."

Wilson said, "The alternative certification process gives people in the business world with work experience to be able to obtain a teaching certificate without going back to school for multiple years. The prospective teacher uses hours in a particular field to gain certification. This is very beneficial to those hard to find teachers where certification is limited now days. I am not sure what if any university offer industrial technology certifications anymore, but I do know it is limited. The alternative certification is how Cyle became certified."

Wilson said he feels the alternative certification program is a possibility for secondary institutions "because the private/business sector is more lucrative than teaching, individuals are okay with the pay decrease that teachers make, but they want to give back to the community and this method of certification allows them to do this without having to go back to school and spend a large sum of money to get the teacher certification. They use their experience plus they may be required to get a couple credited classes to become certified. In Cyle's case, his first certification was a 2-year certificate and then he had to renew again. I think this is a good deal, especially for those hard to find areas. I don't know if this is happening for like Science and math teachers, but it is happening in the CTE world like Cyle."

Daugaard and other attendees asked great questions about the program and then Kurtenbach commented on the grant writing process and how it was group effort (business/education) in setting the curriculum and purchasing the machines.

There was additional discussion regarding dual enrollment as well, regarding how to get the machining class taught by Miller to count for postsecondary credit.

As to why Sturgis was selected for the honor, "I believe the itinerary is set up through the Governor's office and the city manager," Kirkegaard said. "We were contacted by the Department of Education and asked if we could host at the incubator building."

"It is good for the governor to get out to the communities of South Dakota and visit with the people and what is happening around South Dakota," Wilson said. "This is very beneficial for him and it also can showcase some good things that are happening in South Dakota, like the funding they provided for the machine shop. For SBHS, I think it showcased the school and the good things we are doing, on a small scale because it was only one classroom."

"I thought it was a good day. We were able to highlight our CTE program the city was able to showcase the good things that are happening in Sturgis," Kirkegaard said. "They were also able to view and discuss a possible future State Park. It is always good to be in situation where the Governor and the Department of Education have a favorable outlook on your district."

Information on the sd.gov website said, "Since 2011, Capital for a Day has been hosted by Mitchell, Canton, Onida, Volga, Hill City, Britton, De Smet, Viborg, Aberdeen, Lead-Deadwood, Flandreau, Wall, Parkston, Faulkton, Wessington Springs, Milbank, Kimball, Madison, Spearfish, Lake Norden, Lemmon and Yankton."

Interested communities are urged to fill out an application, the site said, and submit it to the Governor's Office, and for more information, contact Kris Erickson at 605-773-3212 or <u>Kris.Erickson@state.sd.us</u>.

Comments

You do not have permission to add comments.

EDUCATIONAL FACILITIES ADVANCE

STURGIS, S.D. — Late last summer, instructor Cyle Miller took possession of tools and supplies donated by Sterling Instruments. The stock drive components included gears, pulleys, belts and samples of moving parts.

When Miller contacted Stock Drive/Sterling Instruments (SDP/SL), the plan was for students to test and use the new tools for different types of projects that have moving parts.

A new class is being designed to accommodate the tools and learning.

Miller said the course "will be a support lab for CAD and senior projects, to serve students not interested in other extracurriculars.

"The reason I started this project was because I saw a number of individuals who were not engaged or interested in traditional after-school programs, who were coming to me with ideas of things they wanted to make," Miller said. "They didn't have the equipment or expertise to make that come true. I hope this lab will provide that opportunity for them."

Skills will be honed through the use of simple machines and 3D printers as well as a full welding shop and a full machine shop.

"This class will benefit CTE students by providing opportunities to physically bring object to life that have only been imagined," Miller said. "The tools donated allow students to turn stationery mechanicals to moving mechanical components."

Nate Anderson (10) said the class gives him "a chance to learn something you don't usually learn in school."

It "benefits kids who want to be in non-traditional extracurriculars," Brandon Chayka (12) said.

The machining lab, Connor Crane (12) said, "will encourage more and more students to participate in activities because it's different."

The Wiley Coyote (Looney Toons) Lab will be an open lab, Miller said, available whenever it is convenient to students year round.

"The lab has students in it from before school and the printers are running into the night," Miller said. "We have made clocks, fidget spinners, cup holders and repair parts for a number of machines."

Class assignments are designed to encourage creativity and ingenuity. Miller tells his students they "are only limited by their imagination and effort."

The course content, Mason Nash (10) said, "gives me an opportunity to make something that I've made myself and that I can turn into a physical reality."

After receiving the Workforce Governor's Grant in 2014, which helped to secure a building and purchase initial tools, the machining class has been drawing a number of innovative, interested individuals. Their projects are unique to the learners

and available tools.

"I like that I can probably use this to help me in the future," Owen King (12) said.

For example, a student who took Miller's CAD class last year drew an elbow engine in 360 Fusion, 3D printed and assembled it.

This year, thanks to the tools provided by SDP/SL, learners have additional opportunities.

"My CAD class used the donation to help them

understand how gears mesh in preparation in drawing gear trains," Miller said. "I have a student who is making a bed for his senior project. To prove his design, he 3D printed it."

Currently, there are plans to receive additional financial assistance from the school, federal grants, state and local grants and donations from local industries, Miller said.



In the lab, machining students examining tool parts and discussing how to use them. Pictured: Nate Anderson (10), Alyssa Jones (12), Tayler Opstedahl (11), Haiden Janssen (10), Alexia Delbridge (12) and Olivia Jolley (11). photo by Maddy Karrels







Senior Capstone Judges sought for presentations to be held Nov. 28-30. Contact Tere Froelich at froelter@meadeschools.org for more information and to volunteer your time.



