STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 essential Mathematics

PERIOD 1

Darryl Adam

MEASURING THE WATER TOWER AND OTHER THINGS

DESCRIPTION

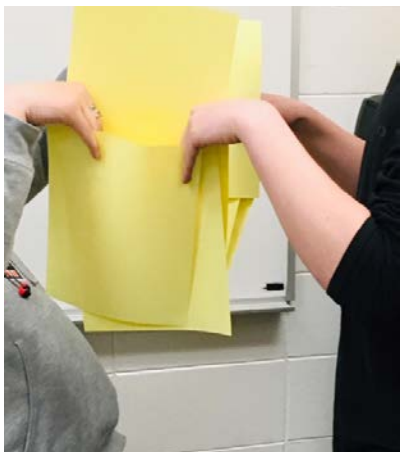
The students came in and were to break into groups of 2 or 3. They were given the following materials: 20 pieces of spagetti, 1 m tape, 1 m of string, and a marshmellow. Objective was to build a free standing structure that would have the marshmellow being the highest. 30 min Next students broke into groups of 4 or 5 and were given 20-25 pieces of paper. The groups would elect 2 people that would try to hold the most pieces of paper between the two without the papers by each paper. 20 min We then built flextangles (paper figet spinners) students would colour, cut out, and glue together these papers (30min to 1hour) Built popsicle stick catapults (1hour) Went to water tower and measured it using electronic clinometer. 2 hours

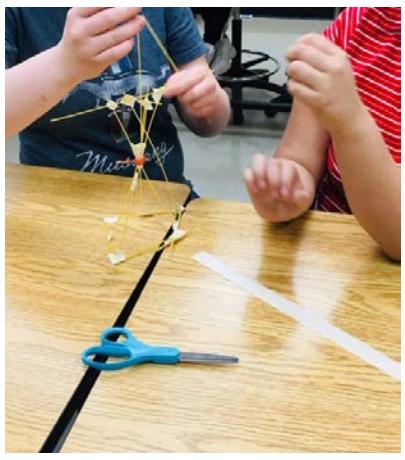
ESSENTIAL QUESTION

First part was team building exercises with critical thinking . Last part was the use one of the skills, finding the height of an object using trigonemetry, we learned in math and use it in real life. Also by downloading a clinometer onto their phones, we were using technology to help us with this task.

TEACHER REFLECTION

The first two activities went very well. With one of the structures measuring 67 cm tall. We found out something about boys and girls in the next activity. Girls seemed not to mind body contact while the boys didn't even want to hold hands with paper between them. The two girl groups were able to hold 16 pieces of paper between the two students while the boys did 5 and only with their hands. The flexangles were fun too for most of the students. Think of a paper kaleidoscope. The designs that some of the students did were jaw dropping on their artistic talent. The walk to and from the water tower was fine and measuring of the angle of elevation was good. We even put in some conversions from students' steps to metres and feet. Had a very good day wouldn't change much.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Foods & Nutrition

PERIOD 2
Kimberley Addison

BRAZILIAN CUISINE W/ GUEST CHEF

DESCRIPTION

We were exploring a different culture through cuisine. We had a guest chef come in who specializes in Brazilian cuisine at Carnival in Winnipeg. She had us make Feijoada, which is a bean and sausage stew, as well as a heart of palm salad with a roasted tomato vinaigrette. We used ingredients and cooking techniques that we hadn't been exposed to yet and had the opportunity to taste an authentic everyday type of meal from Brazil. In the morning we prepped all our ingredients and put our stew together. In the afternoon we finished our salad, made our dressing and ate our creations.

ESSENTIAL QUESTION

The unit we were working through was culture and cuisine. Prior to innovation week we had explored new ingredients, flavours and styles of cooking & eating from all around the world. Innovation week gave us a chance to actually try to put together and taste a traditional dish from a region most people were unfamiliar with.

TEACHER REFLECTION

The students did a great job at following instructions from our guest chef and enjoyed cooking a little differently than they were used to. They learned more about flavour and seasoning than they have in the past so that was exciting for them. Making their own salad dressing was new and although they enjoyed the process they weren't overly fond of their roasted tomato concoction. I was really happy that we were able to bring someone in to help guide our students through unfamiliar territory. I would absolutely want to try and find someone who maybe specializes in something different next time. I think I would prefer to try some Asian cuisine next time.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Math
PERIOD 5
Holly Anderson

CARDBOARD BOAT RACES

DESCRIPTION

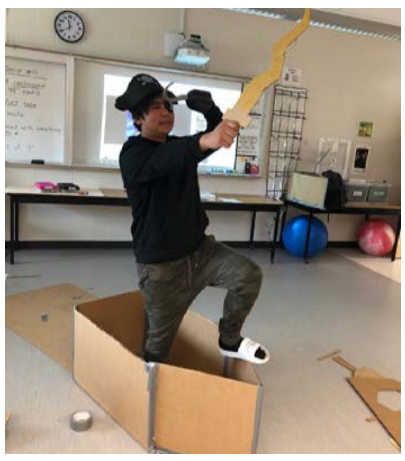
Our day began with planning the design for our cardboard boats. We even had some extra inspiration from a crew of pirates! Each group of students had the task to design and construct a boat big enough for a human that would compete in a race across the pool and hold as many students as possible for a weight challenge in the pool. The groups had a limited number of supplies to create this nautical masterpiece: 2 sheets of cardboard, 1 roll of duct tape, and 1 utility knife. Many did not believe that it could be done! Students worked tirelessly for 3+ hours and created some pretty interesting designs! When we were finished, we took our boats to the Steinbach Aquatic Centre to race them! Afterwards we had some free time in the pool - it was an awesome day!

ESSENTIAL QUESTION

1) How will students rise to the challenge to design a boat, given a limited number of supplies? Can they work as a team? 2) Can students use creativity, critical thinking and reasoning to problem solve while executing a design challenge? 3) Can students see surface area of 3D shape problems in real-life, and determine how surface area and other factors impact an objects ability to float?

TEACHER REFLECTION

This was an amazing activity and we had so much fun! Every student was engaged throughout the day; from the design process to construction to racing (or cheering on) teammates. Students learned a lot about how important it is to come up with a really solid design, and take in to account factors like: the size of the boat, stability, ease of maneuvering, weight distribution, strength of the walls or floor, and even rowing technique. Students definitely realized the value of teamwork in this challenge - there is simply too much to get accomplished if you aren't working together! Comments from students "I wish this event lasted two days!" "This was the best innovation day I've had so far!"



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Math
PERIOD 6
Katherine Colette Andres

BARBIE GOES BUNGEE JUMPING

DESCRIPTION

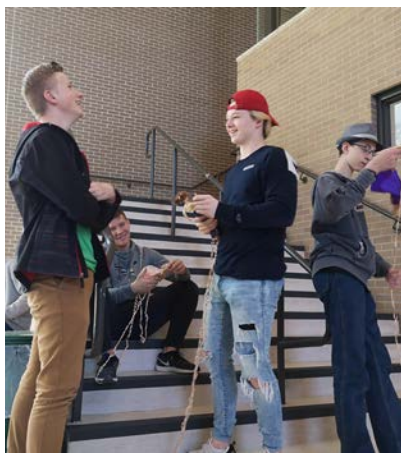
We started off our Innovation day reviewing and practicing how to plot coordinates from a table of values on a graph. This skill was going to be important for the rest of our day! After this, we began to collect some data. Students tied varying amounts of rubber bands to their Barbie's legs and recorded how far she would fall. This data was then graphed in order to predict how many rubber bands they would need to have Barbie bungee jump off the MPR Balcony. Students used extrapolation to calculate a number of rubber bands they thought would be enough to give Barbie a good thrill but not too many to send Barbie's head into the ground! After one test jump and a chance to readjust the amount of bands used, groups lined up to record their final jump.

ESSENTIAL QUESTION

This day was intended to show students how linear relations can be used in everyday life as well as in various careers (industry, economics, tech etc.), to help us in making predictions. Using plotted data, we can extend information we know, to help us find information we don't know. Students became more familiar with using slow-mo recording tech to record their test jumps for more accurate data.

TEACHER REFLECTION

The day was really fun and I was surprised by the student buy-in. I think by incorporating childhood toys into the activity, the students were interested and it made them forget that they were actually doing quite a bit of math. The concept of throwing the Barbie's off the balcony had them interested from the get-go and it hooked them into doing the graphing and learning that I intended for the day. We accomplished everything we set out to do and I learned that simply adding an interesting challenge (group with the best jump won a prize), combined with using toys, immediately made math class more interesting and fun. This is something I will definitely try using more in the future!



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Hairstyling

PERIOD 2

Shelly Bargenda

1800'S HAIRSTYLES

DESCRIPTION

My grade 11 learners had a fun and creative day recreating hairstyles from the 1800's. The first step in this creative process was inspiration so each learner had to research hairstyles from the 1800's. Once they choose a hairstyle they wanted to recreate they had to implement the principles and elements of design into their practical application. Makeup and accessories were added to finish off the their 1800's hair designs.

ESSENTIAL QUESTION

This activity is designed to introduce students to a variety of creative techniques used in hairstyling. The elements and principles of design. As part of this creative process, the learners will develop character, collaboration, creativity & critical thinking.

TEACHER REFLECTION

The day went really well. I was very impressed with all my learners as they used the 5 elements of design and the 5 principles of design. Watching the learners creativity was fabulous.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Intro to Applied and Pre Cal
PERIOD 3
Keith Barkman

DESIGN AND BUILD THE ULTIMATE AREA!

DESCRIPTION

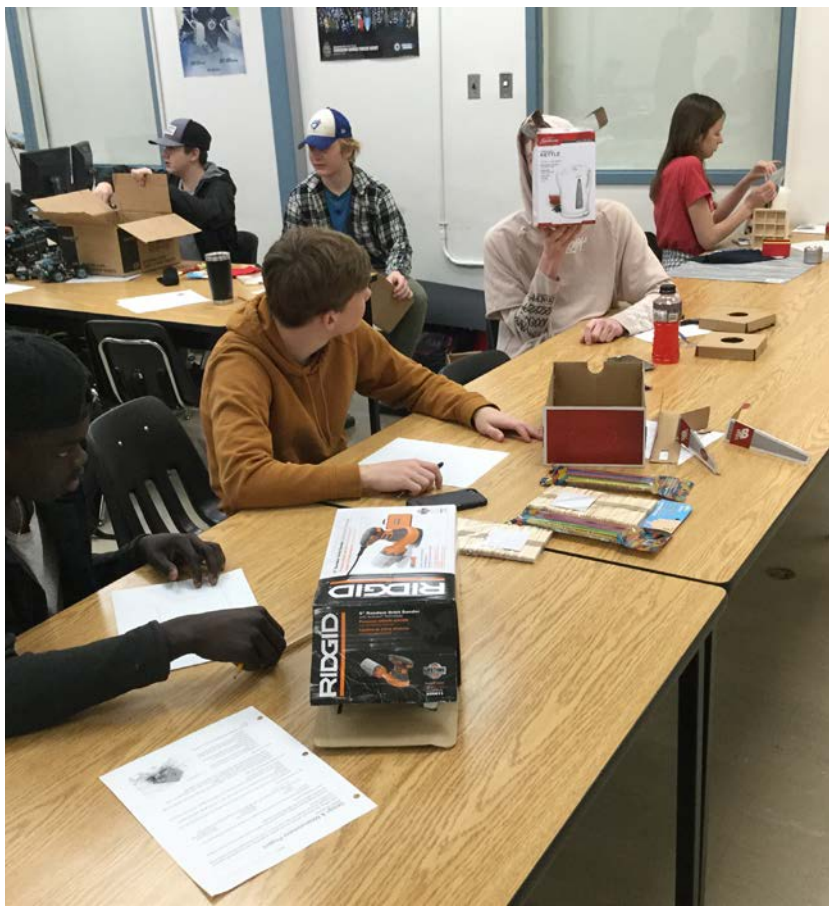
For the day of math, students were prepped ahead of time with the plan for the day. They were expected to bring in some supplies to help them with their project. The day started with students planning out their designs for their ultimate area. This included planning and drawing their design out to scale on graph paper. Once they had their design, the building began. Using supplies they had or shared from a friend, they built a scale model of their design. One of the expectations was that students would continue to improve their design through decorative touches throughout the class. To use the class time to it's maximum and create a great looking final product. The final part of the project was to give a paragraph write up to describe the reason for each part of their design.

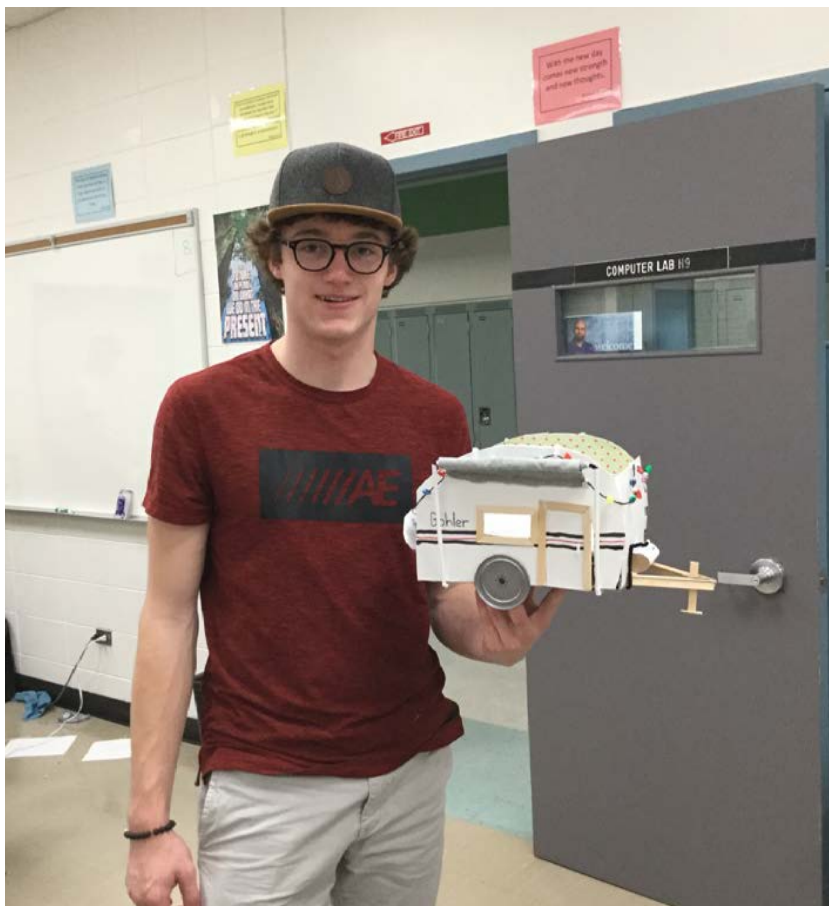
ESSENTIAL QUESTION

Creating a scale design of an area, as well as building a scale model from a blueprint. Students were asked to show creativity through their design and build as well as communication when describing the reason for the design and decorative touches.

TEACHER REFLECTION

Each time I have done this project the creativity and accuracy of the projects improves. Seeing some students strive to increase their level of detail and add things they hadn't originally planned often provided great improvements and a lot of fun during the build. A couple projects even surprised me in their level of detail. Students really appreciate the day and enjoy being able to work on hands on learning.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Self-Directed Learning
PERIOD 2
Eldon Bestvater

BREAKOUT BOX

DESCRIPTION

Our Team Break-Out Box Challenge is a critical thinking, communicative, creative, collaborative and academic quest. Students are led on task to discover clues to solve a variety of mathematical, geographical, and historical puzzles and codes. Student have sixty minutes to solve these series of challenging puzzles in order to open a locked box. In our scenario, students must find the lost assignment or risk failing their grade! Using previous knowledge and skills, students must race against the clock to decipher the codes and secrets to open directional, word, and number locks and discover the whereabouts of the missing assignment!

ESSENTIAL QUESTION

Using all the evidence, clues and answers you may uncover, what can you deduce and infer to help you solve the next problem? Is there someone in your group that has an area of strength to help figure out the clues? Has all of the necessary information been gathered prior to solving the problem?

TEACHER REFLECTION

This engaging activity was met with curiosity and intrigue from the students. Each new step in the quest, produced a different reaction from members of the group with a new leader emerging out of the group to take control of the challenge. Many students stepped out of their comfort zone to offer their solutions. Students recognized some of their own personal limits and relied and collaborated with others to in order to achieve the the desired outcomes.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Science
PERIOD 7
Jayson Betker

EGG DROP CHALLENGE!

DESCRIPTION

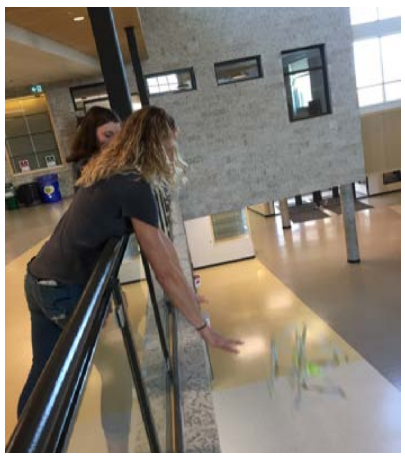
This Innovation Day was all about designing an apparatus that would decrease the force an egg feels with it goes through a sudden change in momentum. We dropped “Egg Protecting Apparatus” from the balcony above the Learning Commons to see whose design would be the most successful! The expectations were that students would participate, work together, and apply knowledge that we learned in class to construct what they believed to be the apparatus that would best protect their egg from breaking upon impact.

ESSENTIAL QUESTION

The main point of the day was to create an everyday situation that would help visualize and qualitatively relate impulse to change in momentum. (S2-3-08) Impulse is equal to Force multiplied by Time. Through their collaborative designs, they would increase the time it took for the egg to stop moving, which would result in a smaller stopping force, hopefully resulting in their egg not breaking!

TEACHER REFLECTION

The variety and creativity in each design the groups came up with was incredible. They all put an impressive amount of thought into the details of the process, and it was exciting to see that a majority of the drops were successful in protecting the egg! “It was interesting to let our creativity take control.” - Alex Courchene The students learned that with some effort, physical concepts from class can often be translated into a real world scenario. I learned that creativity plays a large role in the success of projects such as this one. For next time I would like to set a “material budget” that the students can use. This would mean that rather than attempting to cushion the eggs fall by using an abundance of materials, they would be better off maximizing each material’s effectiveness.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Advanced Mechanical Drafting

PERIOD 2
Fred Bilsky

HYDRAULIC MACHINES

DESCRIPTION

We started the day with a good breakfast. This was followed by a round table discussion about the use of hydraulic and pneumatic cylinders in machines. Hydraulic and pneumatic cylinders are used to operate machinery throughout many industries, including farming, trucking and manufacturing. Students built multi-function robots that used manually operated hydraulic systems to demonstrate the capabilities of hydraulic cylinders. The movements explored included vertical, horizontal, lateral and pincer motions. A challenge course was created to allow students to compete with their models. After all the robots were built and tested, students participated in a friendly competition to demonstrate their ability to have the robot do work.

ESSENTIAL QUESTION

The main learning outcome was to introduce students to hydraulic machines. The activity was designed to demonstrate how linear motion (i.e.: from a hydraulic cylinder) can be used to generate motions in other directions. We also explored the differences between hydraulic and pneumatic power.

TEACHER REFLECTION

The activity worked very well. The students learned a lot about hydraulic and pneumatic power. They also learned about compression of liquids (does not) and gasses (does). The pitfalls of having air in a hydraulic line results in loss of control and accuracy. For this event, students built robots using a commercially purchased kit. In the future, I would like to have the students design their own robots. This will require additional work before and after the innovation day. However, we have all the required technologies for model creation available in the school, so it should be an achievable goal.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

ENC 30S
PERIOD 6
Ashley Booth Gingras

SPIES & DETECTIVES

DESCRIPTION

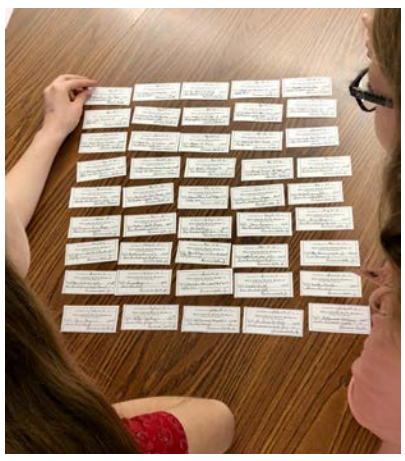
Our day began with taking two online quizzes to figure out if we would make good spies and detectives. Then, we watched the newest movie adaptation of “Murder on the Orient Express”, stopping at various points to voice our predictions of “whodunit”. Next, small groups were given an envelope of 45 cheques from “Ordeal by Cheque” by W. Crue. Once the small groups put the cheques in order by date, they needed to make inferences to imagine a story based on the information on the cheques. Then, they chose 5 cheques to write accompanying notes for the cheques, which pushed them to write in character. We wrapped up the day by working through critical thinking stations: the games Clue and Code Names, the mystery picture book “The Eleventh Hour”, and a Sherlock Holmes mystery puzzle.

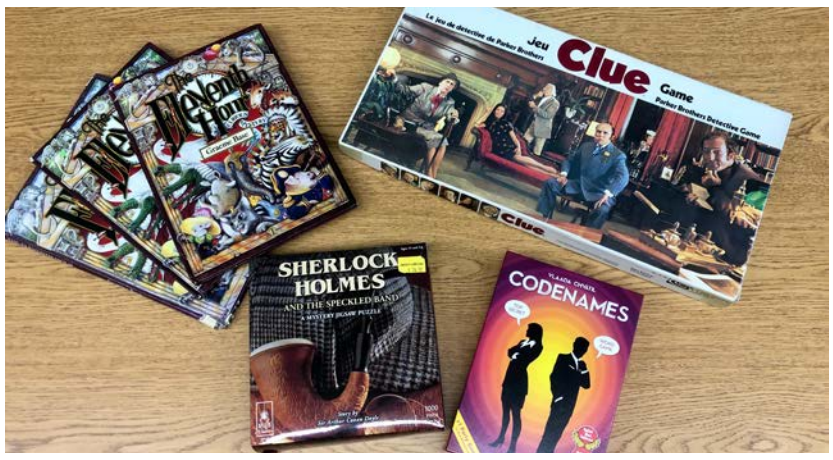
ESSENTIAL QUESTION

We started the day by going over how writers sprinkle their stories with “red herrings” to trick their readers and discussing what it means to “make an inference”, which involves reading between the lines and making logical predictions. The day was built around using critical thinking skills and working as an effective team.

TEACHER REFLECTION

The day was a huge success! I even had a handful of students who dressed up as stereotypical spies or detectives. The students worked on asking thoughtful questions, making inferences, and making a new plan when they came across a roadblock. At first, I was worried that the “Ordeal by Cheque” story and assignment wouldn’t interest them because we did not work through a creative writing unit this semester, but they got into it by figuring how much a dollar in the 1920s would be worth in 2019 and experimenting with 1920s slang. Some stories included the mafia, spoiled heirs, and love triangles! I was impressed by their creativity. I will definitely re-visit this lesson plan for another Innovation Day. (“Very few of us are what we seem.” - Agatha Christie)





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Flex Ed
PERIOD 2
Parker Reid Bouvier

ASSINIBOINE ZOO LEARNING TRIP

DESCRIPTION

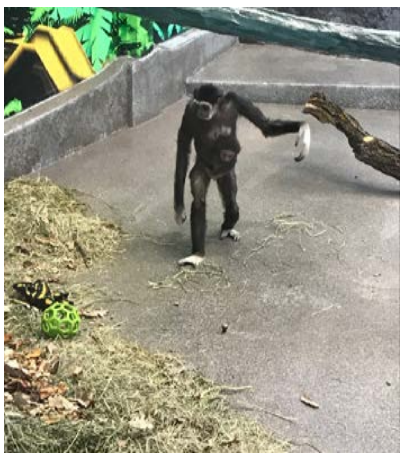
We spent the day at the Assiboine Zoo and students were tasked with taking a picture of the animal they most identified with as a precursor to the other portion of their assignment. With the cool weather many of the animals including the polar bears and wolves were out and about.

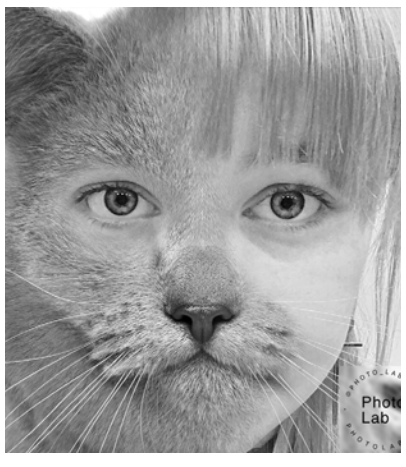
ESSENTIAL QUESTION

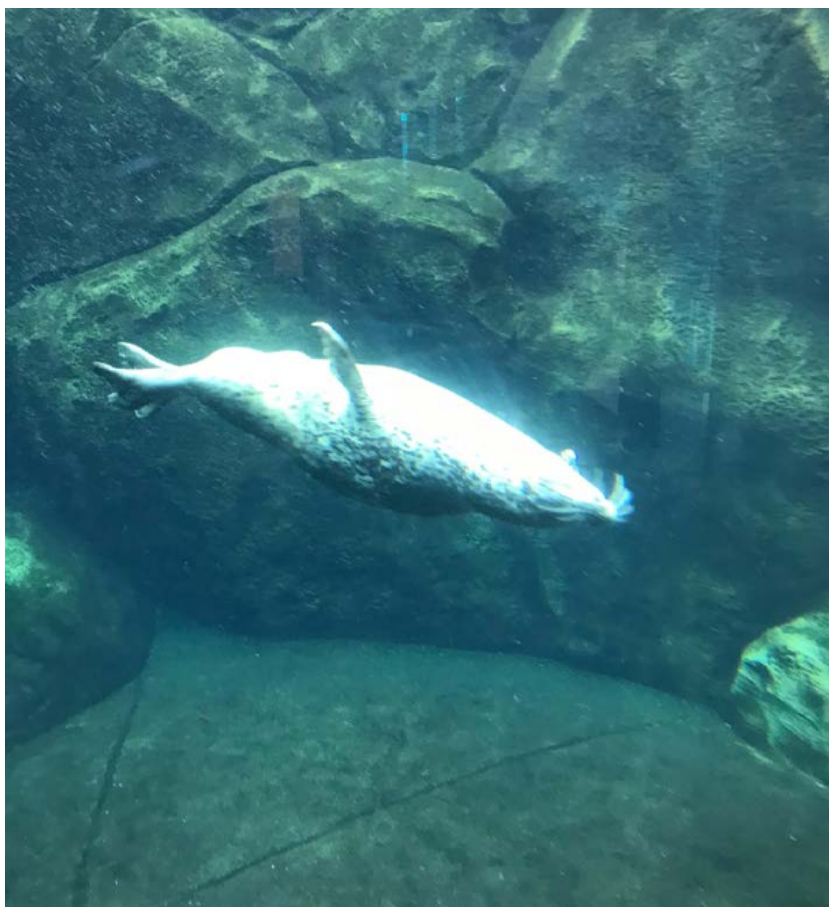
The main focus of the day was for students to engage in an activity that was hands on and would increase our overall sense of community. In addition, after attending the Assiniboine Zoo students would choose an animal that they most identified with (physical traits/character traits/ behavior) and describe their connection. Students would then create a cinquain poem using their descriptive words.

TEACHER REFLECTION

As a teacher I am always impressed with how well our students behave outside of SRSS. Going to the Zoo always makes us adults feel like kids again, and for our adolescents, it is an opportunity to live in the moment. Although we took some pictures, the majority of the experience was spent marveling in how beautiful the world around us really is. It also reminds us of what we will miss if we allow it to disappear. Perhaps the standout moment for us was watching the polar bears engage in their own adolescence, wrestling and playing in the water. As Manitobans and Canadians we are blessed with the nature that surrounds us, but this experience also reminds us of our duty as wardens to protect and conserve these fragile ecosystems. The smiles were enough to speak for themselves.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Intro to Pre-Calculus Math - Theoretical

PERIOD 5
Clinton Brandt

TRIGONOMETRY AT THE WATER TOWER

DESCRIPTION

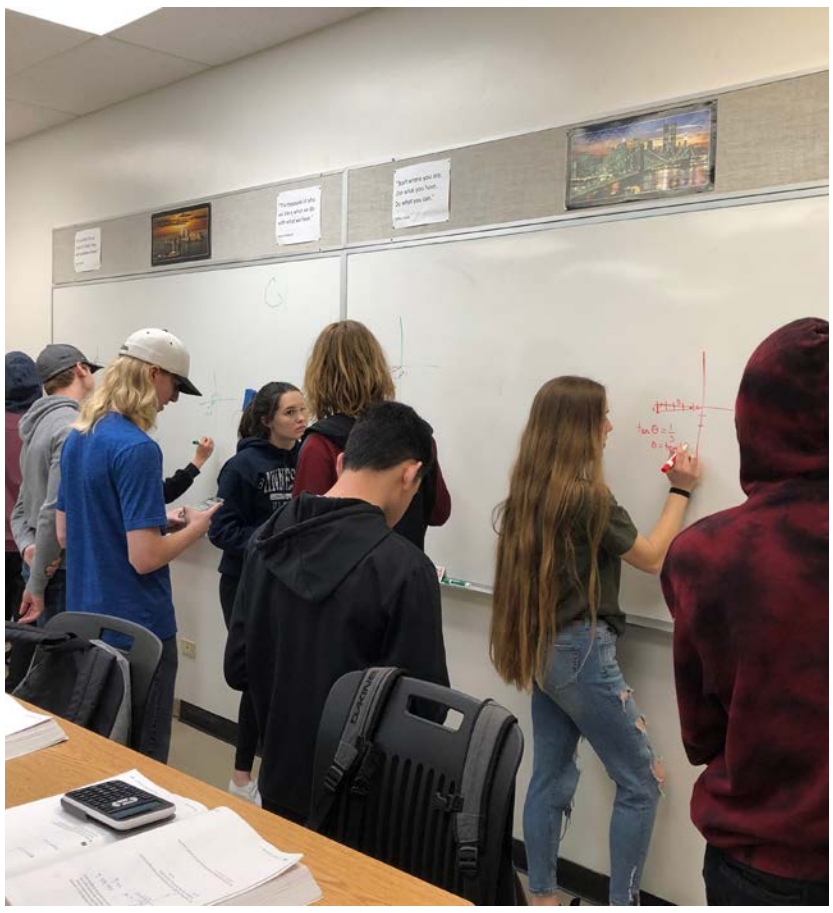
Students spent part of the morning working in groups around the room learning about slope. Students were given some initial teaching but then were expected to work together to discover a method to calculate the slope of a line. Just before lunch the students walked to the water tower. Using a metre stick and a clinometer app on their phones they were able to calculate the height of the water tower using skills learned in the previous trigonometry unit. At the end of the day the students made a TSN Math video. Working in groups the students filmed a video of some group members solving a math problem while other group members provided the commentary for what was happening.

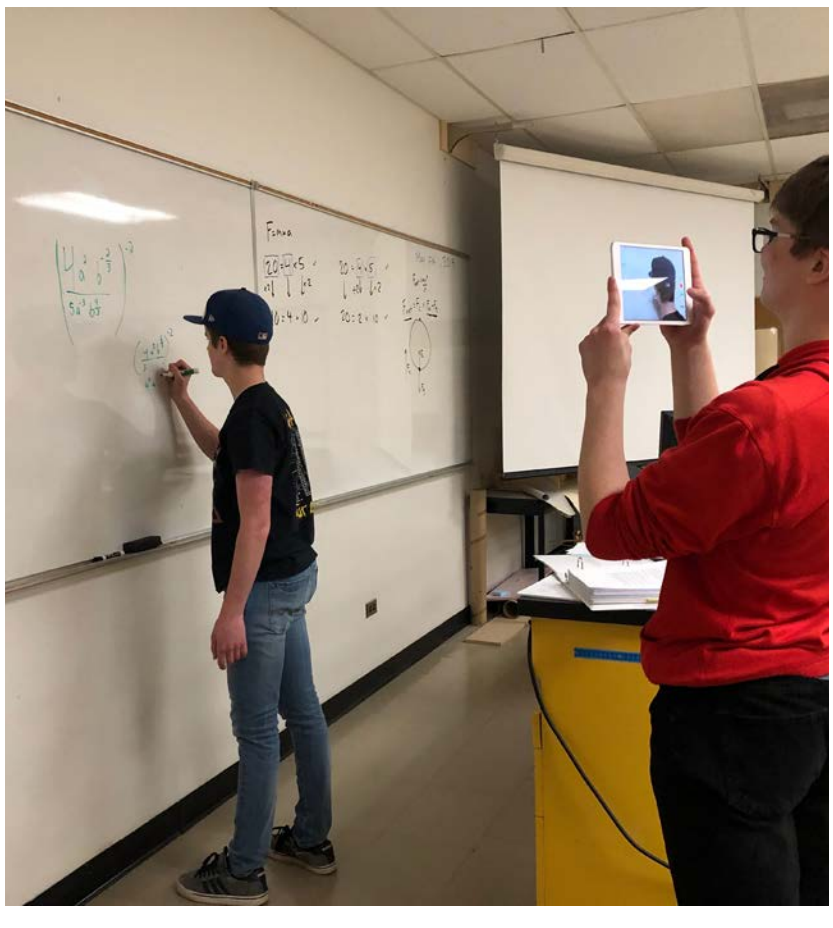
ESSENTIAL QUESTION

The main purpose of the day was for students to learn math collaboratively. All of the activities were done in groups. Some required students to use prior knowledge in a new context and other activities required students to discover new ideas.

TEACHER REFLECTION

The day went better than I had hoped. The students were engaged throughout the day and worked well with each other. The TSN Math videos were a good way to end the day as the students had the opportunity to tap into their creative side.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Biology
PERIOD 3
Cherie Brisebois

A SWEET DAY

DESCRIPTION

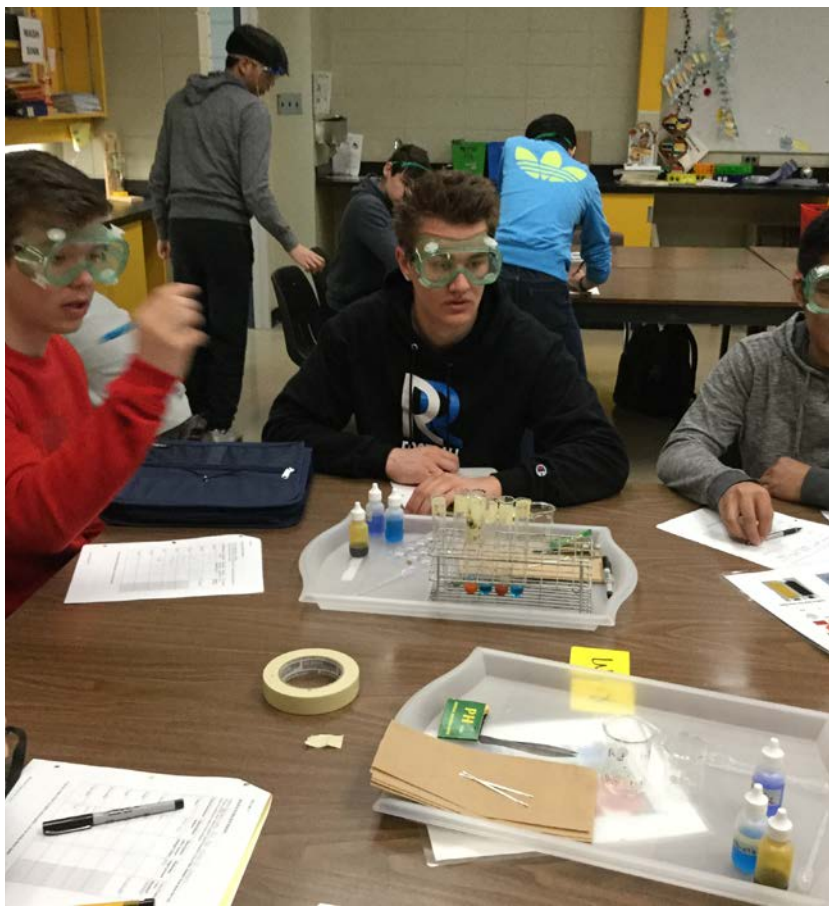
WE began our day with learning how to test for various nutrients: Carbohydrates using Benedict's solution to test for reducing sugars, iodine to test for starches, and Biuret's solution to test for Proteins. We then were introduced to our patient, Ms. Sonya Weet who reported various symptoms--our teams had to figure out the cause of the symptoms. They learned how urinalysis is used to detect metabolites, then performed a urinalysis for S. Weet--determining she is excreting sugars, ketones, and has a UTI. To confirm suspicions, the afternoon was spent determining what her glucose tolerance was in blood plasma. After determining she has diabetes, the next and final step was to determine which kind using a blood plasma insulin test. Type 2 diabetes was our final diagnosis

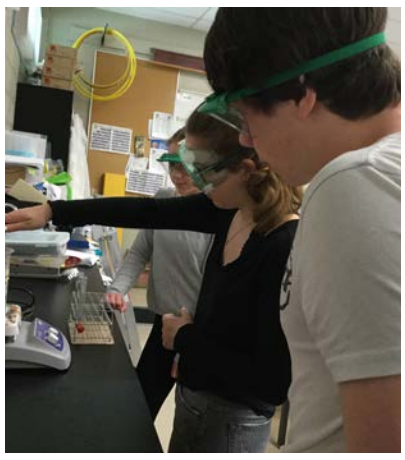
ESSENTIAL QUESTION

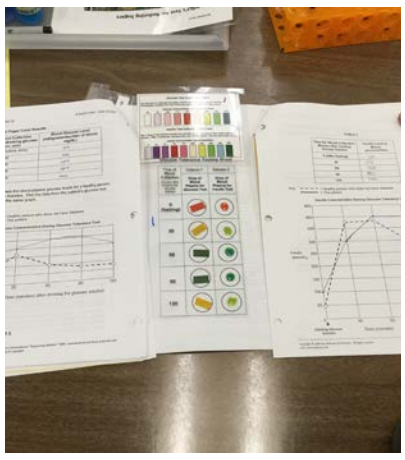
Working on collaboration and communication skills, "doctor" teams had to work through a question: What is happening to their patient? Taking care to record data accurately, critically thinking through results and responding as a doctor helped students see how our knowledge is applied in understanding our Diabetes Type 2 epidemic

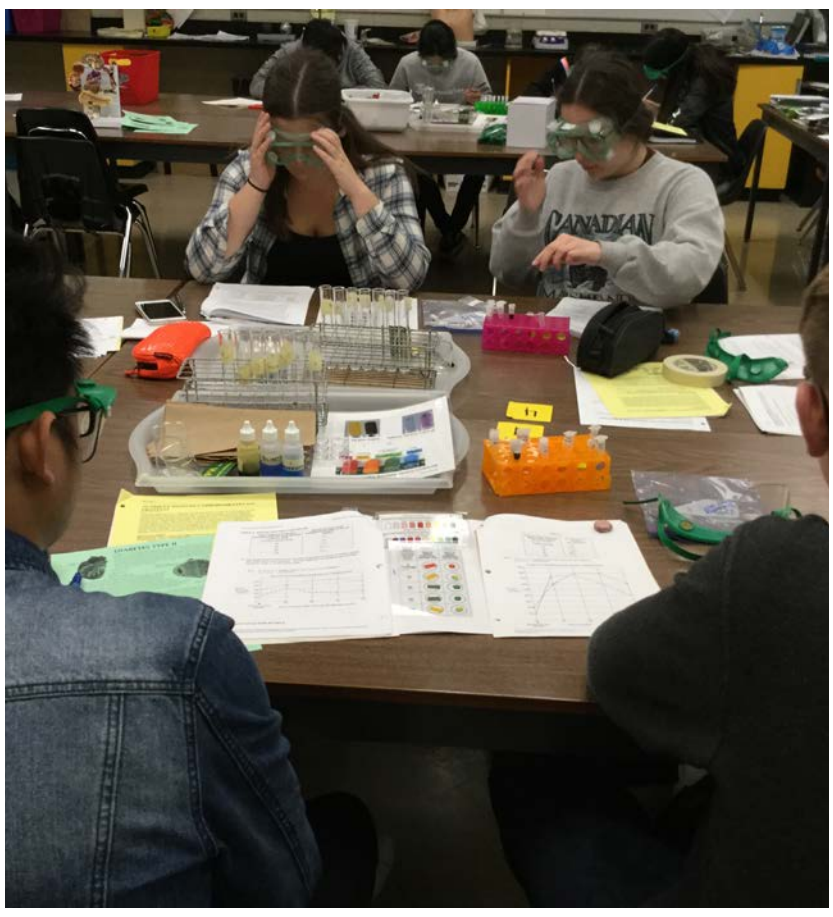
TEACHER REFLECTION

The character I saw in both biology 30 classes, as my teens took on various roles within their teams, was wonderful to see; brainstorming, backtracking and researching allowed students to see some answers are not linear--many factors are involved--or...could it be one factor causing many symptoms (as in our study)? This was presented as a hands-on interrupted case study with purposeful use of common labs in three units (digestion, waste, and blood) in a life application: understanding diabetes type 2. Some comments I heard "oh THAT'S why her toe won't heal!" and "wow, she has all the symptoms of diabetes, but...she's a vegetarian, how does that happen?" The funniest was "are you sure this isn't REAL urine? It's so real..." a few kids were a little grossed out at first :-)









STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 English Language Arts

PERIOD 2

Brydon William Caldwell

RESILIENCE AND STOP MOTION ANIMATION

DESCRIPTION

Before the day students created a short story around the theme of “if at first you don’t succeed, try, try again” . Students then formed groups and either selected one story or amalgamated a story to convert to a stop motion animation video. On Innovation Day, students viewed a presentation from Prairie Exotics and then had to incorporate one of the creatures from the presentation into their scripts. We then spent the day creating and filming their actual videos. Once all the videos were submitted, we got to have a film festival in class and share all of our work.

ESSENTIAL QUESTION

Students were focused on collaborating in groups and communicating ideas using a new medium (stop motion). They had to focus their stories on resilience and BE resilient to make everything work with limited supplies and adding a creature to their scripts without warning. They had to successfully work in a group and apply their knowledge of story to a form that went beyond keyboard and screen.

TEACHER REFLECTION

Making a short story is so much easier than making a stop motion film because all you have to do is write/type down what comes into your head. Making a stop motion film requires you to come up with a story but then tell it another way. Thinking about and finding the right things that your characters would look like, and take lots of pictures to get what you want. I also think that it is a better way to tell the story you’ve come up with. You see what your imagination turned into, make the world and people look like how you want it to look, get creative and express yourself even more than writing/typing it. - Grade 9 Student Overall we had a successful day and all of the students were engaged. I would allow more time for students to create in the future.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Computer Coding & Programming 1

PERIOD 6
Daniel Clement

CRAFT & CODE

DESCRIPTION

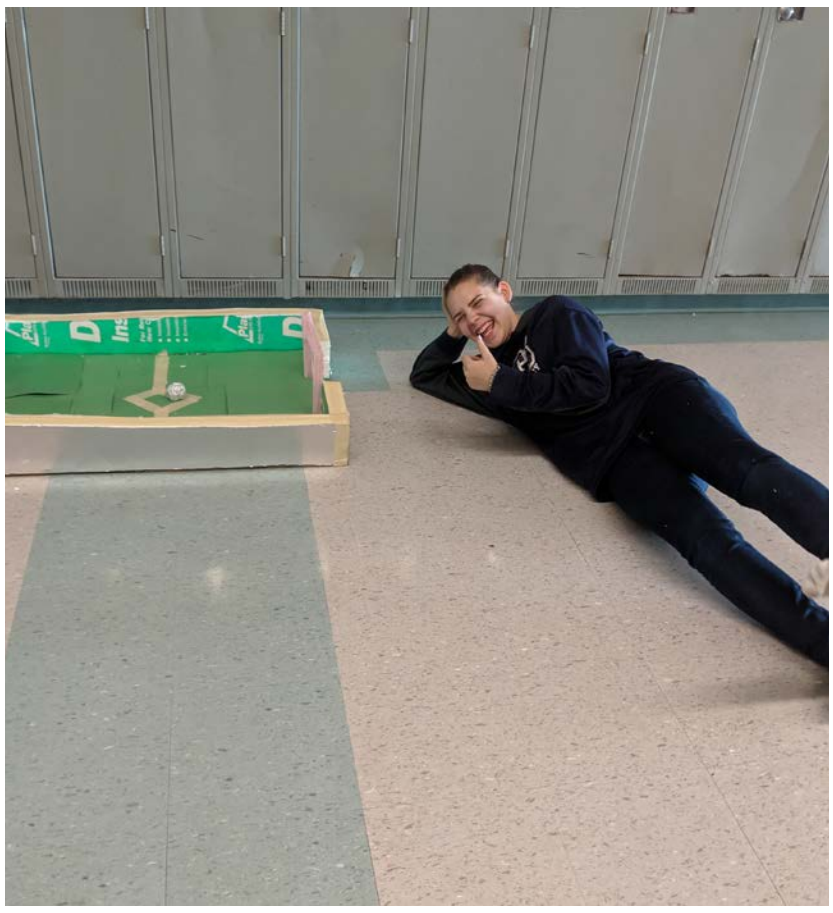
Cool new tech Introduced for Innovation Week! A class set of Sphero Spark's and a large Jamboard Display to capture everyone's curiosity. The Challenge was to design a game integrating Sphero's for everyone to play during the May Play Day and program an automated demo of the game. Students also had the option to design a hand build game controller using a Makey Makey By mimicking a keyboard and mouse the Makey Makey lets you control any computer program with everyday objects. The class even had to help me unload everything out of the car as there were a vast amount of objects to use: foam, cardboard, wheels, metal and even a kid's pool. The plan was to collaborate within groups to design a game and controller for the Sphero while sharing your thoughts and design ideas on the Jamboard.

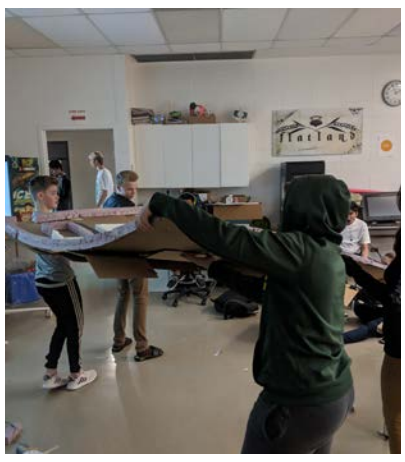
ESSENTIAL QUESTION

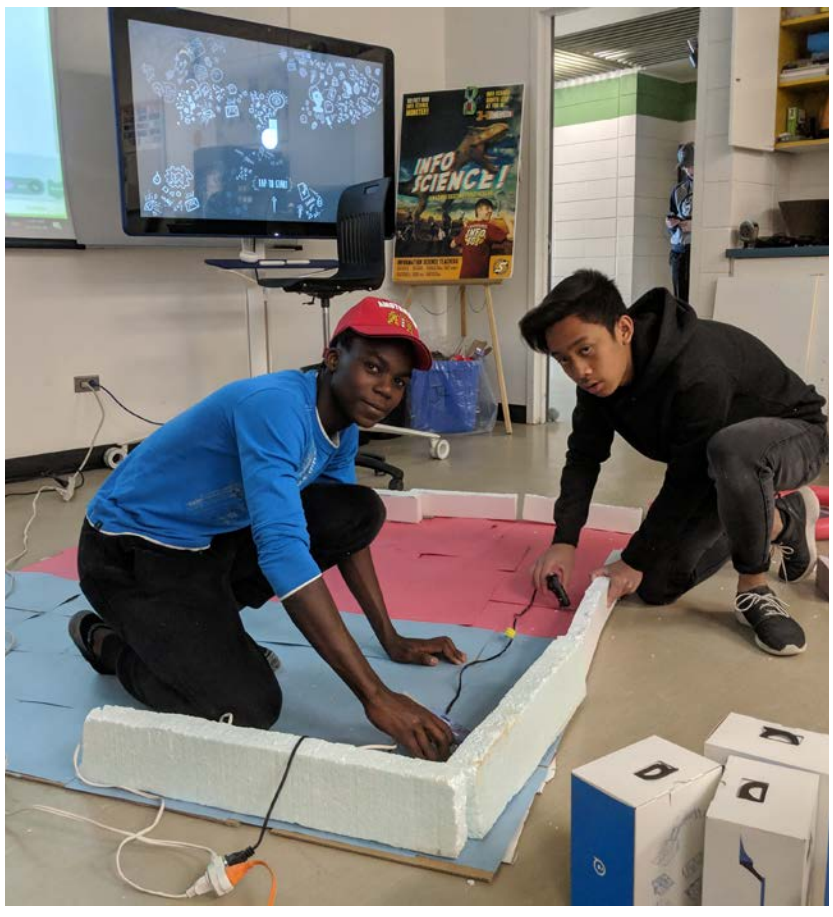
Everyone is creative, inventive, and imaginative. The idea was to have students collaborate and build a multi level game. Students were exposed to crafting a game out of tangible materials to be used towards future May Play Day events. Everyone was encouraged to collaborate as the desks were all converted to mazes built onto them to encourage creativity, collaboration and fun.

TEACHER REFLECTION

Students were so excited to see the change in the classroom. The entire class came outside to help carry all of the materials that were stored in my car and once we returned to class. IT WAS ON! Students selected team members and some lead the class with their plans on the Jamboard and took on a teacher role in order to make sense of their maze designs. This day is just as exciting for me as it is for the students. I often plan to get more done within the day then there is time. For the first time I extended Innovation Week into our regular classes after the fact and completed building the mazes, game controllers and even programmed the Sphero to automatically run through the course as a demo for new players to see. Definitely a great start to a new Innovative project for next year!







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Phys Ed

PERIOD 4

Donald Cooper

EXTREME FITNESS, WHEELCHAIR BASKETBALL, MENTAL HEALTH

DESCRIPTION

The day was broken into 3 Sessions: Extreme Fitness, Wheelchair Basketball and Mental Health Presentation. Expectations where Fitness, Fun and Health.

ESSENTIAL QUESTION

Fitness: Cardio-Vascular, Muscular Strength, Muscular Endurance, Flexibility. Leveraging Technology: Use of Heart-Rate Monitors to track Cardio. Wheelchair Basketball: Intro to a new sport, understanding/respect and inclusion, skill development, strength, cardio Mental Health Presentation: Intro to HSD Counselours, HSD Mental Health Support, Mental Health understanding/respect/support.

TEACHER REFLECTION

Super Day! Our Kids did a great job with a challenging workout. Teachers too! Our Kids loved to wheelchair basketball and have asked for again in class on the off days. Our Kids appreciated the support that HSD is offering in Mental Health. Excellent Dept PD on Circuit Training Fitness and Heart-Rate Monitor usage.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Topics in Forensic Science

PERIOD 2

Ainsley Cote

USING CRITICAL THINKING TO ANALYZE BLOOD SPATTER

DESCRIPTION

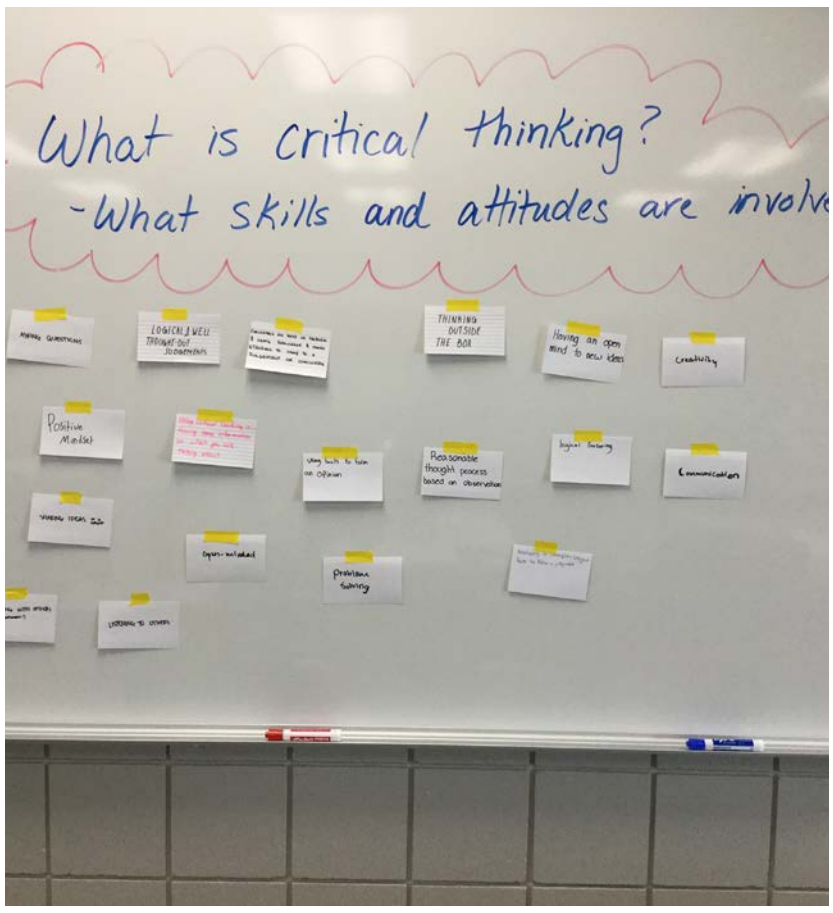
Using simulated blood, we explored how changing height, velocity and angles affect blood spatter patterns.

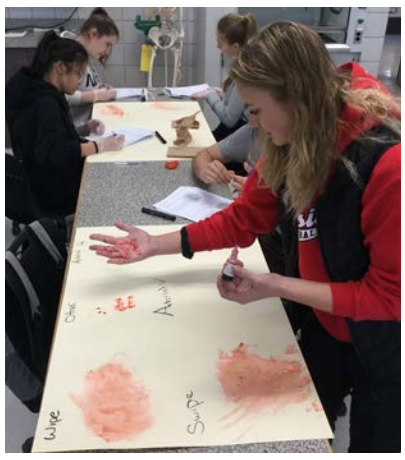
ESSENTIAL QUESTION

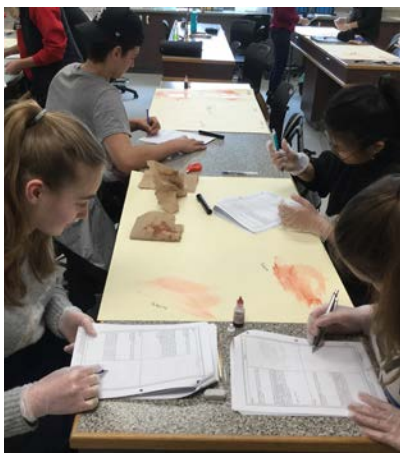
- How are we using critical thinking in our investigations? - How are we making connections and identifying patterns? - How can we experiment, reflect and take action on our ideas in the real world? - What relationships are we observing between cause and effect?

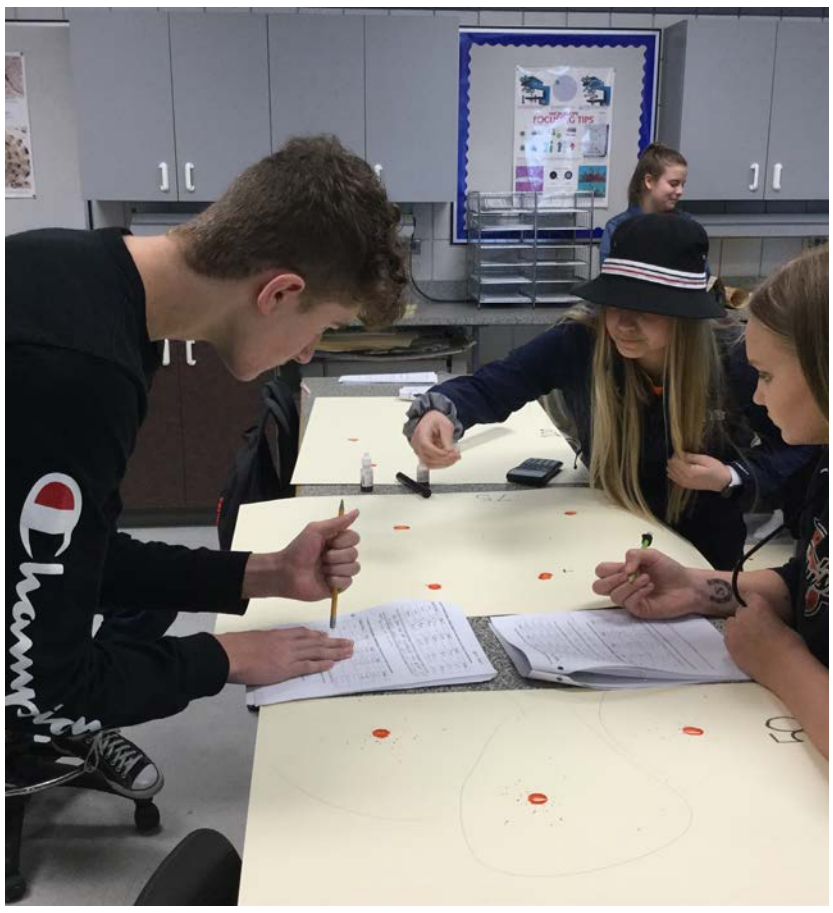
TEACHER REFLECTION

Topics in Forensic Science 30S students spent the day getting messy with fake blood in order to understand the science of blood spatter. They used critical thinking skills while they explored the effects of height, angle, motion and velocity of impact on blood spatter. With their new understanding, they could then interpret different patterns. They did a fantastic job!









STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Tony D'Angelo
PERIOD 4
Tony D'Angelo

WHEELCHAIR BASKETBALL

DESCRIPTION

Three Group Sessions were offered to students for the given day. Session 1 : Tabata Session- Learners participated in a 12 station Tabata (HITT) (high intensity interval training) Session 2 : Wellness Presentation- Guest speakers presented on scope and strategy of topics such as Stress, Communication Styles and Breathing techniques. Session 3 Wheelchair Basketball- Introduction and skill development of the finer points of the sport. Learners had time to practice and compete in relays before playing the game.

ESSENTIAL QUESTION

Innovation day was cross curricular and curricular outcomes. A focus on working with the guidance department and adaptive/inclusive sport showed in Sessions 2 and 3 . Session 1, The fitness component, introduced technology (Heart rate Monitors) and supplemented curricular outcomes.

TEACHER REFLECTION

A new format in the Physical Education department highlighted a focus on new experiences for the learners from Grade 9 to 12. The department has evolved Innovation Week to include the Health component (Presentation/ Heart Rate monitors)and continued to find activities that are unique. Much of the feedback was on the Wheelchair basketball. Students commented on how different the experience was and the onus on teamwork and supporting players on their respective teams. Wheelchairs have been here since first Innovation day and students continue to request participating in the sport.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Math
PERIOD 6
Johnathan Michael Allan David

SCALE FACTOR

DESCRIPTION

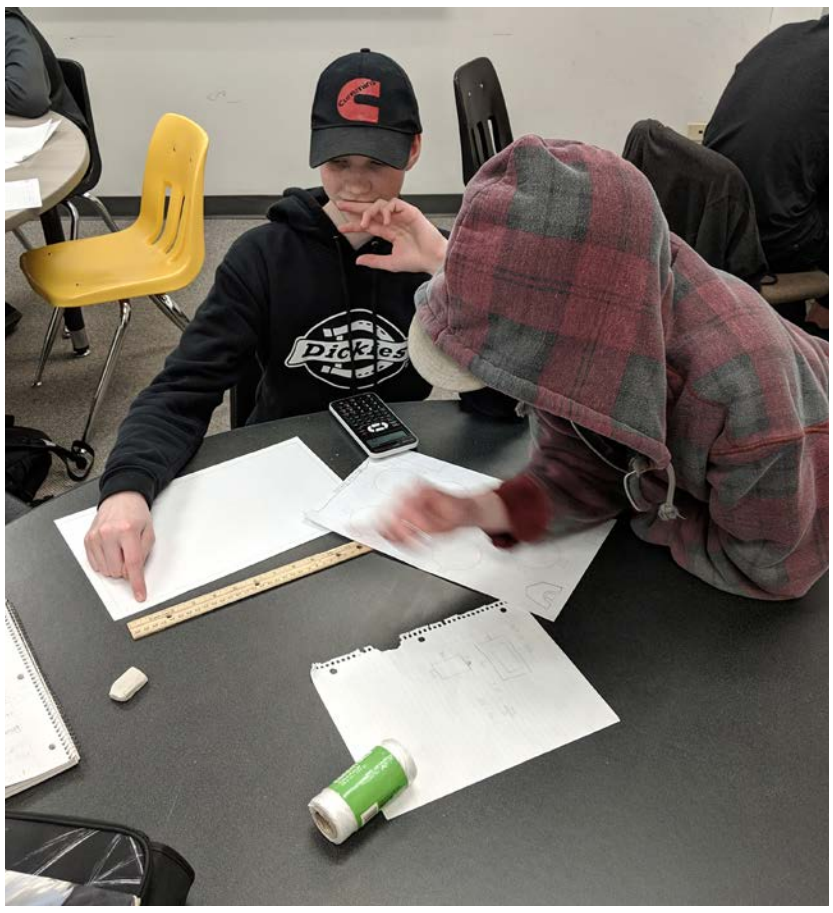
For innovation week this semester the grade 9 Foundations Math class created scale models of the classroom. The day started with a quick lesson explaining what scale factor is, where it is used and how to determine it. The students then when around the school and found similar objects and determined the scale factor of those objects. For example some students found the scale factor of the pine trees that appear on the pine tree graphic located on the upper level of the old section of the school. After a quick break the students came back and took measurements of the classroom. The students then started to create scale diagrams of the classroom. After a quick lunch the students finished their scale diagrams and started to create scale models out of cardboard.

ESSENTIAL QUESTION

The main goal for this day was two-fold. First, the students where to learn what scale factor is and how to work with it. Secondly, the students were working on the five C's focusing on Critical Thinker, Communicator, Collaborator and Creative.

TEACHER REFLECTION

Overall I believe that this day went well, most of the students were engaged and participated for the whole day. Some of the models that the students created where very impressive. The students' took their time and completed their work diligently. I think that with a few modifications, possibly digitally creating the scale model, this day could be even more successful. Overall a good day.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Digital Art
PERIOD 2
Ephraim De Guzman

TRADITIONAL V DIGITAL SCULPTING

DESCRIPTION

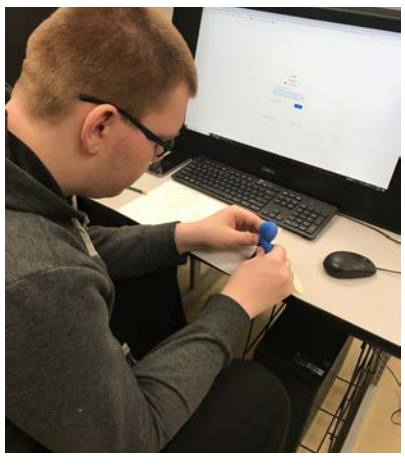
During this Innovation week, the Digital Art students had the opportunity to combine and compare the skills of traditional sculpting to digital sculpting. We spent part of the morning playing with sculpting putty to study the different approaches and properties of traditional sculpting approaches. We then had the students learn the tools in Mudbox and gave them an opportuntity to explore the process of digital sculpting. Students were able to compare both experiences and had the option of combining both traditional and digital approaches n developing sculpting concepts on the computer.

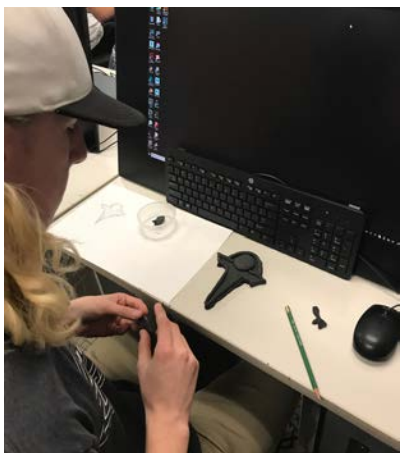
ESSENTIAL QUESTION

Our objective today was to determine the pros and cons of each approach to sculpture. Students were able to experience both and decide as to which method they prefered. They were also able to idenfiy the advantages and disadvantages of each.

TEACHER REFLECTION

We attempted to combine the traditional sculpting into the day as an activating exercise prior to jumping into the computer environment. The tactile nature of the activity seemed to be enjoyed by each of the students. It also assisted in the acquisition of the sculpting process within Mudbox as many of the digital skills and tools were fashioned after traditional approaches. Overall, the students seemed to be engaged throughout the day and some periodically went back to the modelling putty when taking breaks or playing with their ideas. Overall it was a fun introduction to digital sculpting.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Culinary Arts

PERIOD 3
Kerri Deller

CHOCOLATE,CHOCOLATE & MORE CHOCOLATE

DESCRIPTION

Our day started off with having a World class Chocolatiere demonstrate the importance of the three “C”’s Dark Chocolate, White Chocolate and Milk Chocolate.We started off the morning with a cup of hot chocolate followed by listening to Chef Patty describe what the students’ will be making throughout the day. A tasting of a cocoa bean was just the beginning of the lesson on what percentage of cocoa makes chocolate taste so good. Followed by the tasting of Lemon Logs, Mint Meltaways,Hazelnut Giandua and the “fan favorite” Almond Rochers aka Ferrio Rochers. The students’ learnt the importance of tempering the chocolate and having patience. They then roasted almonds and hazelnuts,coated them all in milk chocolate and then rolled them all in cocoa powder. This was a wonderful treat.

ESSENTIAL QUESTION

This was a great opportunity for the student’s to see new and innovative technology. A immersion circulator, a heat gun and a chocolate tempering machine were all put in use.A cross curricular focus was the main pint as they learnt about Math(measuring of the chocolate)Science(temperature and timing) and Health & Nutrition(the benefits associated with dark chocolate and the heart.

TEACHER REFLECTION

How do you get the bubbles into a Aero Chocolate bar one might ask? This was one of the most sought out answer and if you would like to know just find a Culinary Arts student to share it with you. This was a amazing day, the students’ came prepared with a lot of wonderful questions and ready to learn. They were so focused on the preparation of the whipping cream canister and the air cartilages to start the process of the Aero bar, they could not wait to see the finished product. Everyone worked so well together preparing all of the chocolate treats that they sampled in the morning. One student said it takes a long process to make a chocolate treat but only seconds to devour it in your mouth. What a wonderful day for everyone.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Coding and Programming

PERIOD 2

Craig Desautels

MAKEY MAKEYING MUSICAL PROJECT

DESCRIPTION

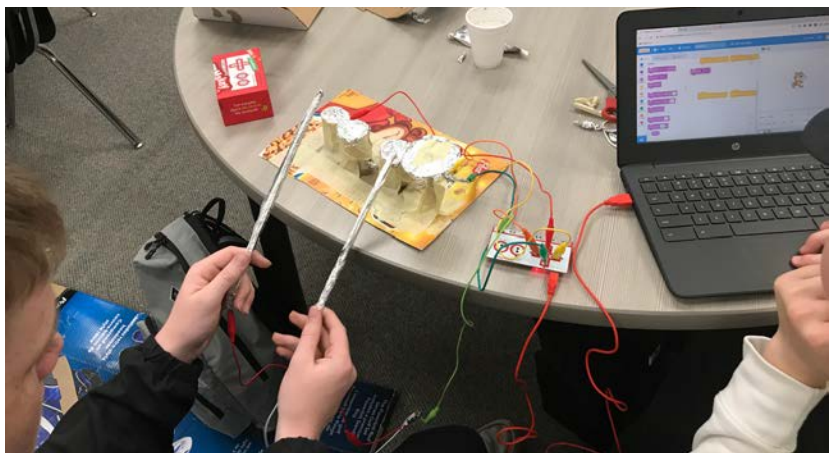
Students in grade 9 coding and programming spent the day designing and constructing musical instruments out of every day materials (cardboard, foam, popsicle sticks...). We learned a bit of electrical engineering along the way, and wired up the instruments with tin foil and wire. Next a Makey Makey was connected that allowed the instrument to be played with a Chromebook. Afterwards, students designed and constructed game controllers for Creative Scratch projects that they were working on before and after our Innovation Day.

ESSENTIAL QUESTION

The main points for the day were creativity and collaboration. Students were forced to problem solve together significantly to make their creative ideas work.

TEACHER REFLECTION

A great day! The kids were awesome. I deliberately gave my students limited instructions on how to do the projects. That made me nervous, but they sure exceeded my expectations. Sometimes that best thing to do as a teacher is just get out of your students way.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Intro To Electrical Grade 10

PERIOD 5

Gary Desrochers

BUILDING HOUSE HOLD ELECTRICAL CIRCUITS

DESCRIPTION

Students were expected to complete three circuits during the day. They had to draw out the circuits, show them to the teacher for approval. They then had to construct their drawing in their wiring board. When circuit was completed they had to have their circuit inspected to see if it met the Canadian Electrical Code minimum standard.

ESSENTIAL QUESTION

Since students had the whole day to work on circuits they were able to complete multiple circuits in one setting. Students got to experience what the day if an electrical apprentice was like. Critical thinking was important during the day since they were expected to design working circuits with minimal errors.

TEACHER REFLECTION

I think the day went well for most students, some students were surprised at how much they accomplished in one day and when it was time to clean up some were surprised the day went so quickly.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

ELA 10F (Grade 9)

PERIOD 3
Katrina Drinevski

WILDERNESS SURVIVAL PROGRAM AT FORT WHYTE ALIVE

DESCRIPTION

Each small group explored the area with a guide. We learned how to build an emergency shelter and got to try it ourselves, start a fire, find direction without a compass (aspen trees are the key, and do not be deceived by moss), and find local foods available at this time of the year (not much, but probably enough to survive). Students looked at the local pond water under a microscope to understand why this water has to be boiled before drinking. We also participated in the Trash Can Challenge where we were encouraged to bring waste-free lunch. Students received free passes to Fort Whyte Alive for being successful in the challenge. After lunch, we had free time to explore the site further. The weather was good, so we spent most of the time outdoors.

ESSENTIAL QUESTION

This trip is a part of our 30-day challenge unit, where students are encouraged to challenge themselves to try new things and get out of their comfort zone. Students were working as a team to complete basic survival skills and overcome obstacles. They needed to rely on each other and trust each other, and that helped them recognize the importance of effective communication in working with others.

TEACHER REFLECTION

This program was a success with my students. When asked if they would change anything, most of the students said they would like to spend more time there. Their feedback was really positive. I was impressed by the group collaboration and students' respectful attitude to program leaders, each other, and the nature. Students had to rely on each other to complete the tasks, and were encouraging each other if something didn't work out right away. I also learned that I can trust them and rely on them more, and this can strengthen our relationship. Feedback from students: "I thought it was cool how the geese were walking all around and nesting" , "My favourite part was running away from geese" , "I wish we could have a longer time to explore" .

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Applied Math
PERIOD 2
Tim Dueck

POPSICLE STICK CATAPULTS

DESCRIPTION

The main activity of our day was building popsicle stick catapults. Each group had to come up with a design, whether original or after an example, a method of providing power, and a method of measuring the amount of pullback. They had to do a fair amount of testing to make sure their pullback measurements accurately and consistently produced the same throw distance over and over again in order to hit given targets during competition time. We also started a project in which we design our dream, money-is-no-object bathroom and produce a scale blueprint for it.

ESSENTIAL QUESTION

Creativity, collaboration, and critical thinking were the focus of our day. There was quite a bit of design involved in our activities as well as solving hands-on problems in groups. Graphing and scale were the context for those skills.

TEACHER REFLECTION

I was pleased at how the vast majority of the class worked hard on making a catapult that worked well. It would have easily been possible to put half effort in and be satisfied with a poor catapult, but many groups had to rethink and redesign and repair their catapults multiple times and I got to see some great problem-solving in that context. When things need to be redone, that's where I find the best creativity, collaboration, and critical thinking take place. In the end, we had some impressive results, and it's always nice to end that way.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Biology
PERIOD 2
Dana Duizer

DNA TECHNOLOGY AND RISE OF THE SUPERBUG

DESCRIPTION

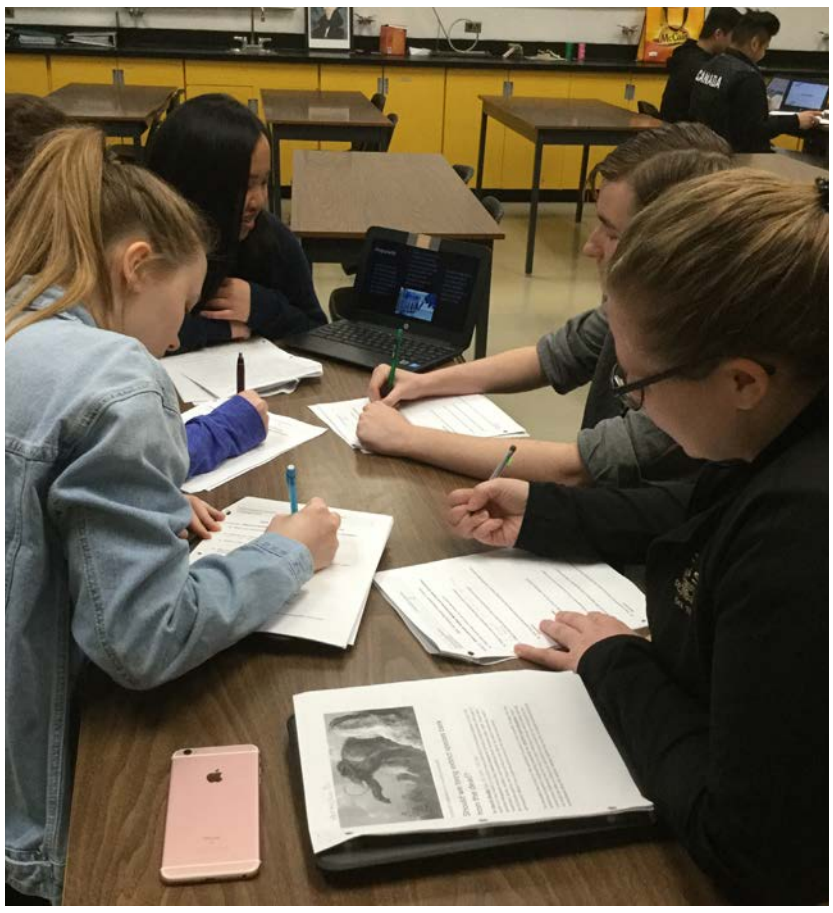
Our day started with a Breakfast Seminar and actual breakfast. Students then gathered in small groups to present information to each other about new DNA technologies such as 3-Person babies, de-extinction, ethics of genetic testing and other topics. We moved into a gel-electrophoresis lab to determine the paternity of a child. With the current measles outbreak around the world our class simulated an outbreak of an infection in our classroom by swapping bodily fluid (aka distilled water or diluted sodium hydroxide). Once we knew who patient zero was and who had been infected we simulated those individuals being prescribed antibiotics and what happened to the bacteria (colored discs) in their bodies if they took their antibiotics as prescribed or not.

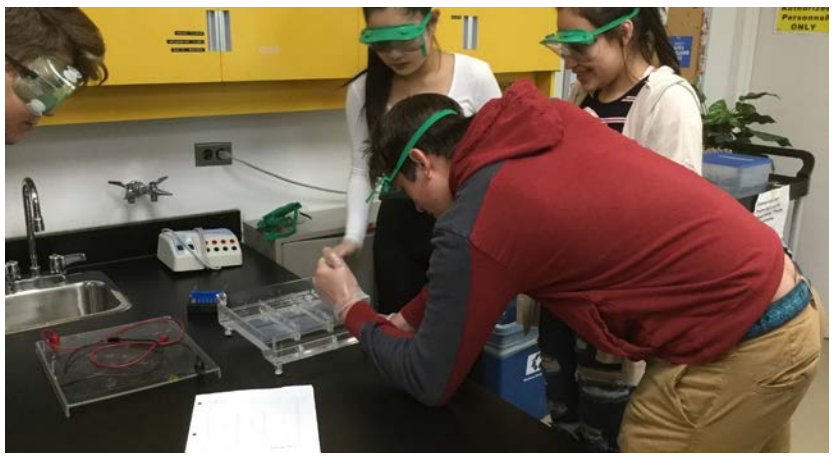
ESSENTIAL QUESTION

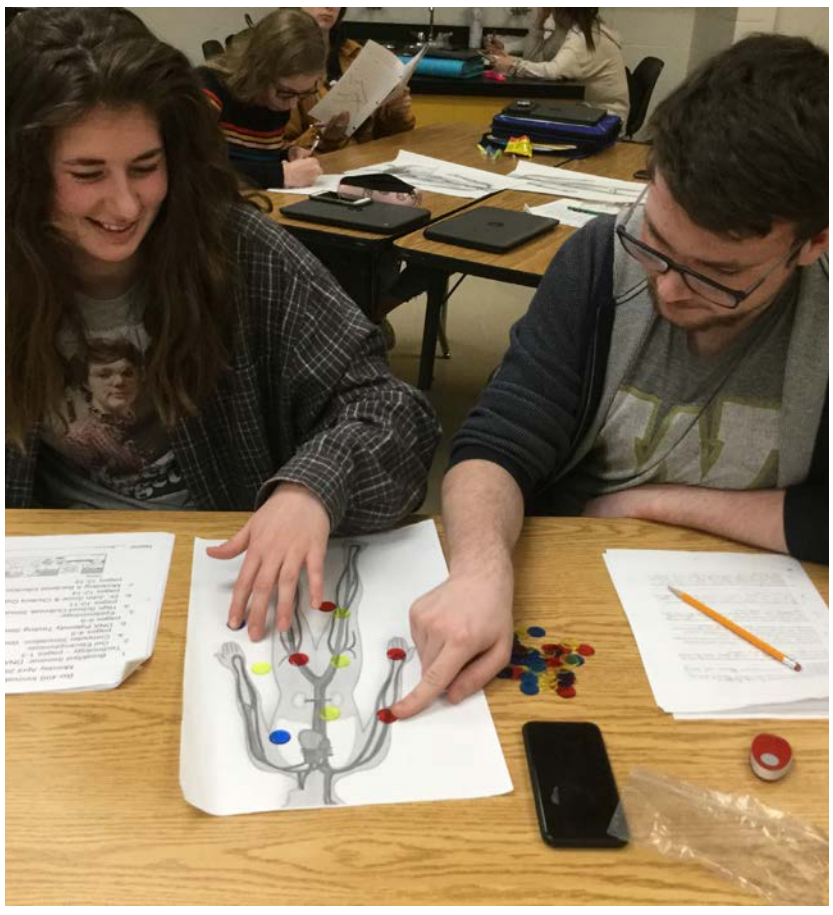
What are the pros and cons of new DNA technologies? For example, should we genetically modify a mosquito population to become mostly male to try and eradicate malaria? How can DNA be separated by electricity into bands to identify the father of a child? How do epidemiologists pinpoint the source of an infectious disease and then try to reduce or prevent the spread of that disease?

TEACHER REFLECTION

Students were given a current article about new DNA technologies/issues in advance and were expected to become “experts” about the content to present to classmates who had not read that same article. I was thoroughly impressed with how well prepared the students were, how confidently they spoke to their groups and how engaged many of them were in the discussions that took place. For the gel electrophoresis lab it is extremely difficult to pipette the DNA into the well correctly in the chamber. Students handled this challenge well and a few showed great promise as possible lab technicians or researchers. They had very steady hands and intuitively knew how the equipment should be used. Much information was shared and covered throughout the day and these students were troopers.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Pre-Calculus Math

PERIOD 5
Richard Durksen

TRIGONOMETRY AND DRAGONS

DESCRIPTION

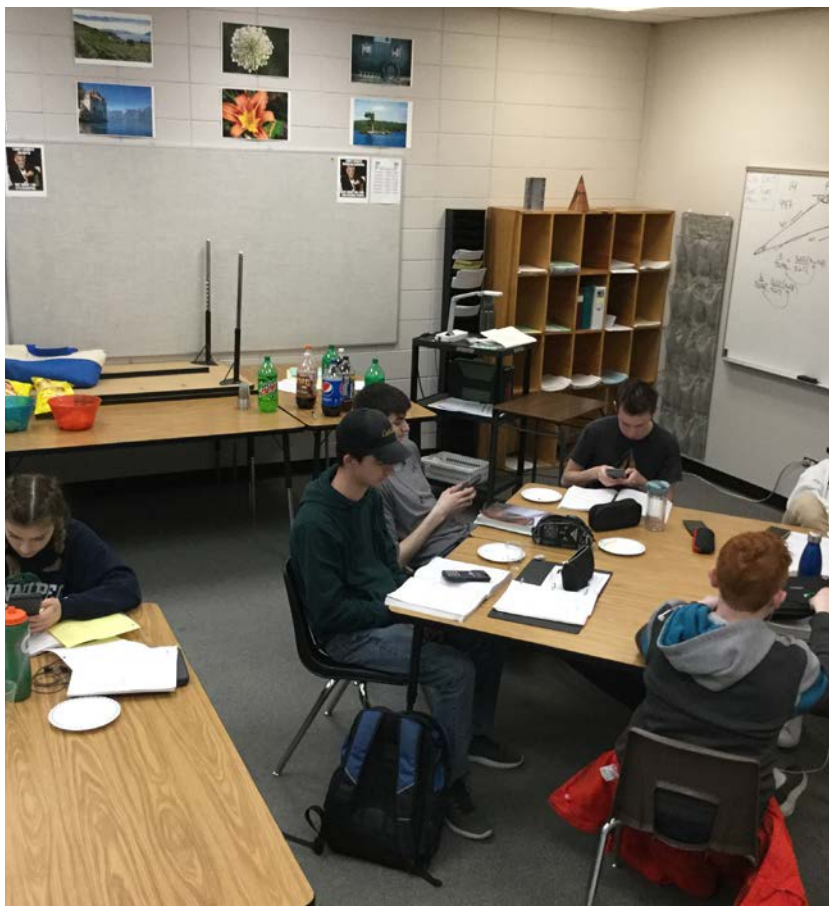
Our morning was spent working on Trigonometry: angles in standard position, solving trig equations, finding reference angles, being ambiguous about Sine Law, and expressing our love of Coleslaw (pun...) After lunch, we switched to group problem solving and dragon-based riddles. Throughout the day... snacks played a large role in maintaining motivation and goodwill.

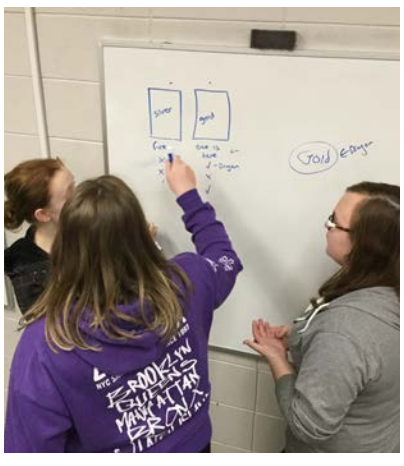
ESSENTIAL QUESTION

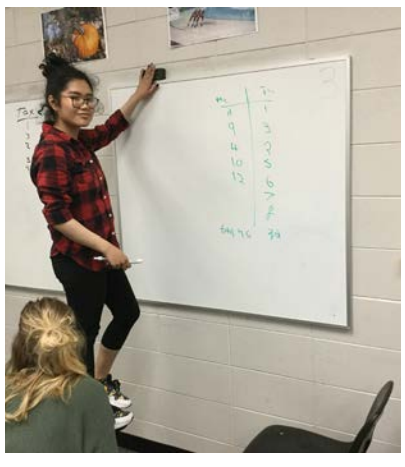
What is an ambiguous case, when solving triangles? How come there are multiple answers to trig equations? What info is required for the Sine Law to work to solve a triangle? Is Cos Law any use in solving triangles? Or is it only good with fried chicken? How do you poison a dragon from one of 7 wells, while it is behind a silver (or was it gold...) door? How many cucumbers can 1 Galessiere eat?

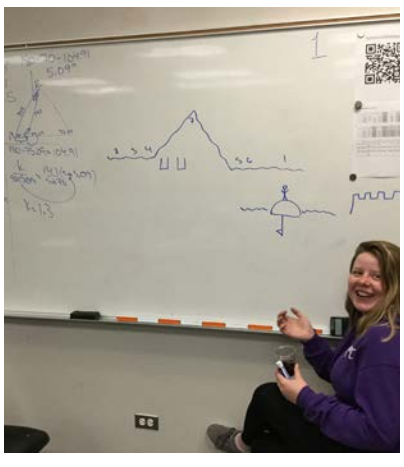
TEACHER REFLECTION

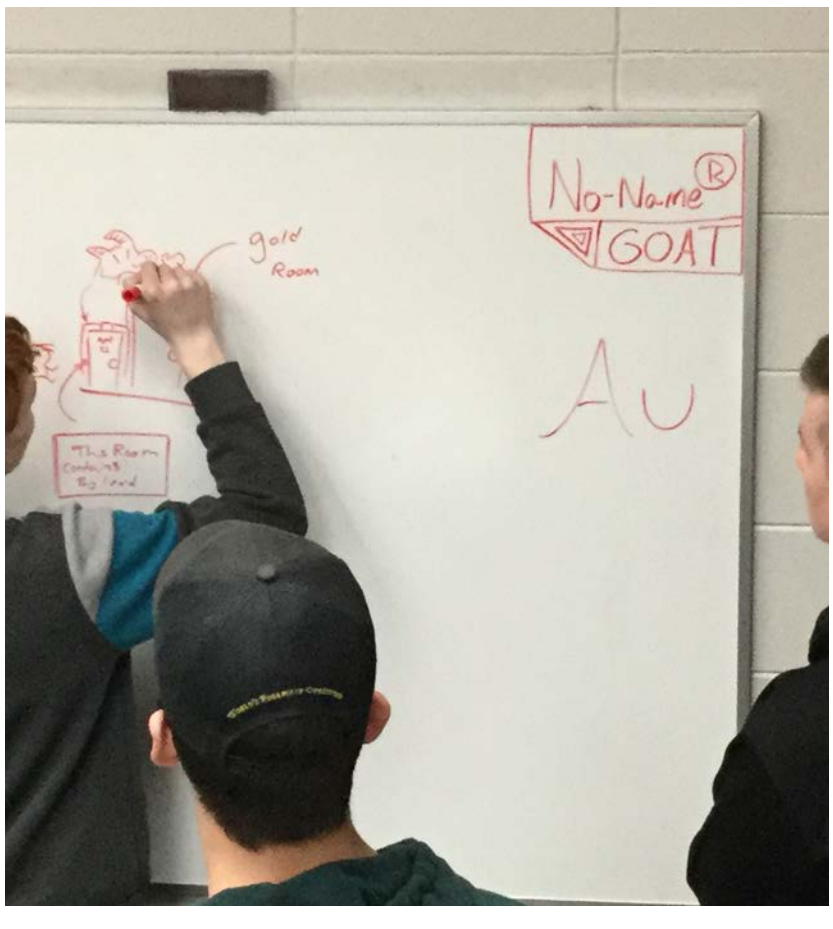
The students worked sooo hard at their trigonometry topics all morning. Very impressed. A lot of great questions were asked of their classmates and of me while they puzzled away, learning this topic. The snacks were yummy, and we could spend some time getting to know each other a bit better. They also threw themselves into the group puzzles and enjoyed their time working with (and against) each other. (How many points did YOU get, huh??) The longer time spent together allowed us to become more human, more of a family, and less like strangers.











STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Automotive Technology

PERIOD 6

Gilbert Duval

TOURS: AIRCRAFT MAINTENANCE AND PILOT TRAINING AND TRUCK REPAIR SHOP

DESCRIPTION

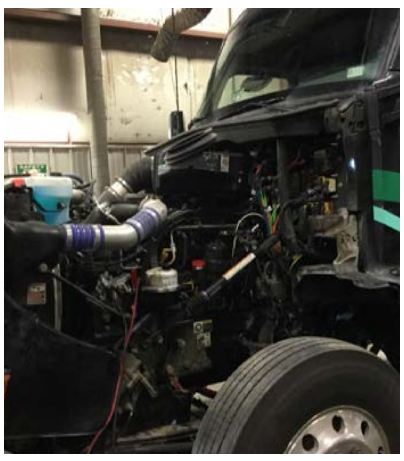
We toured Harv's Air's pilot training and maintenance shop and Big Freight's Fleet repair shop. Students say the workings of real world in the life of different types of mechanics. We walked both shops and say different work being preformed.

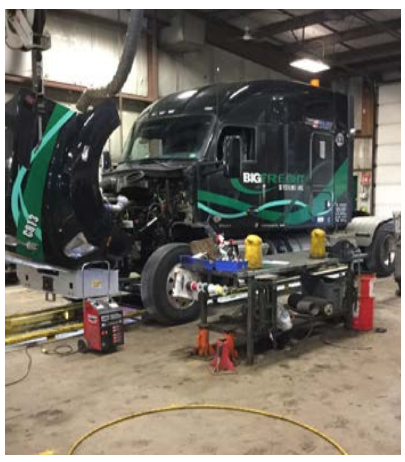
ESSENTIAL QUESTION

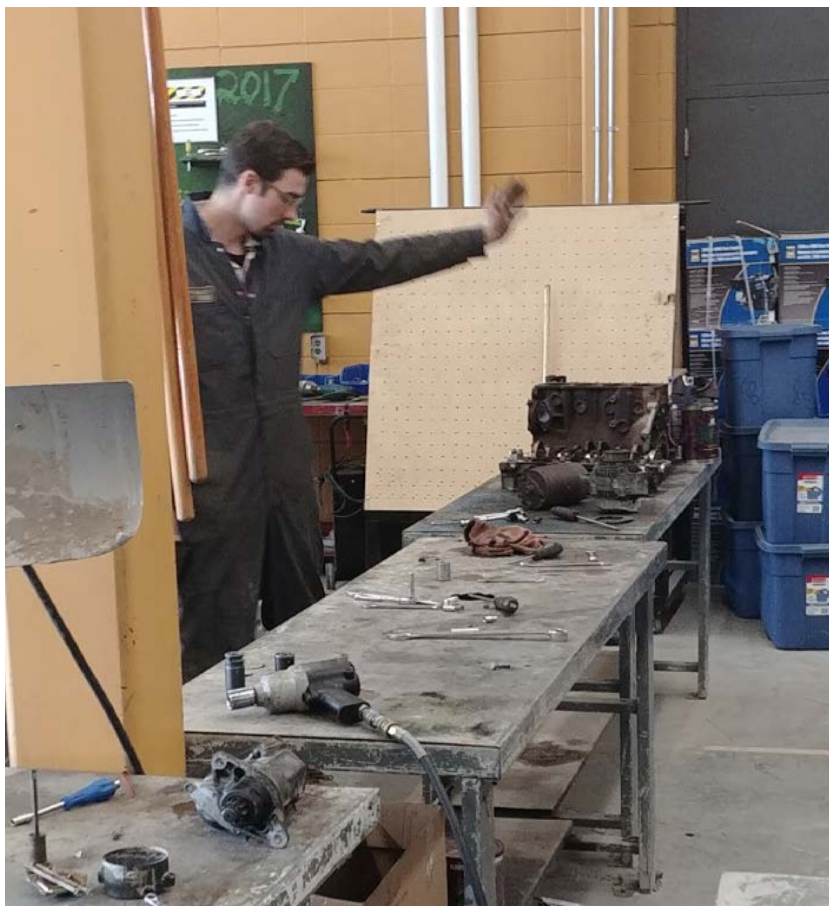
The tours were undertaken to help give students an overview of a number of potential careers including aircraft maintenance, pilot training, truck and trailer mechanic, and parts counter personnel. Students were given a presentation prior to the tour, they asked good questions about the different trades.

TEACHER REFLECTION

The tours went very well, student well behaved, asked good questions, saw different work environments. Student already considering these fields indicated that the tours helped them get a better outlook on their career paths.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Science
PERIOD 3
Jeff Dykerman

ELECTRICITY AND LIQUID NITROGEN!

DESCRIPTION

For this day we began an exploration into the basics of electricity through a virtual lab, then students we able to apply there new knowledge in building snap circuits to achieve various goals. The afternoon was then spent exploring liquid nitrogen and it's properties and effects. We got to smash fruit, examine it's effect on gas pressures, made smoking bubbles, ate liquid nitrogen soaked Graham Crackers, shot off bottle rockets, made a superconductor to "float" a magnet in air, and finally made ice cream! A great day of learning while having fun!

ESSENTIAL QUESTION

The main points of the day were to get a basic understanding electrical circuits. What a conductor vs insulator is, what parallel vs series circuits are, how resistors effect circuits, etc. With liquid nitrogen we examined the properties of solids, liquids, and gases and how liquid nitrogen changes them, as well as the properties of superconductors.

TEACHER REFLECTION

While the electrical virtual lab was a bit dry, students we able to learn some electrical basics just through some experimentation. Some students combined several of the snap circuit sets to explore how high they could launch a propeller. It was awesome just to witness their curiosity and guide the discussions exploring the "why" to what they were doing. The liquid nitrogen was exciting and entertaining all afternoon and led to lots of questions and interactions with students. Students were especially blown away by the "floating" magnet over the superconductor. And, who doesn't like ice cream!?!?

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Chemistry

PERIOD 3

Avery Sigridur Eramchuk

MAD SCIENCE AT SOUTHWOOD!

DESCRIPTION

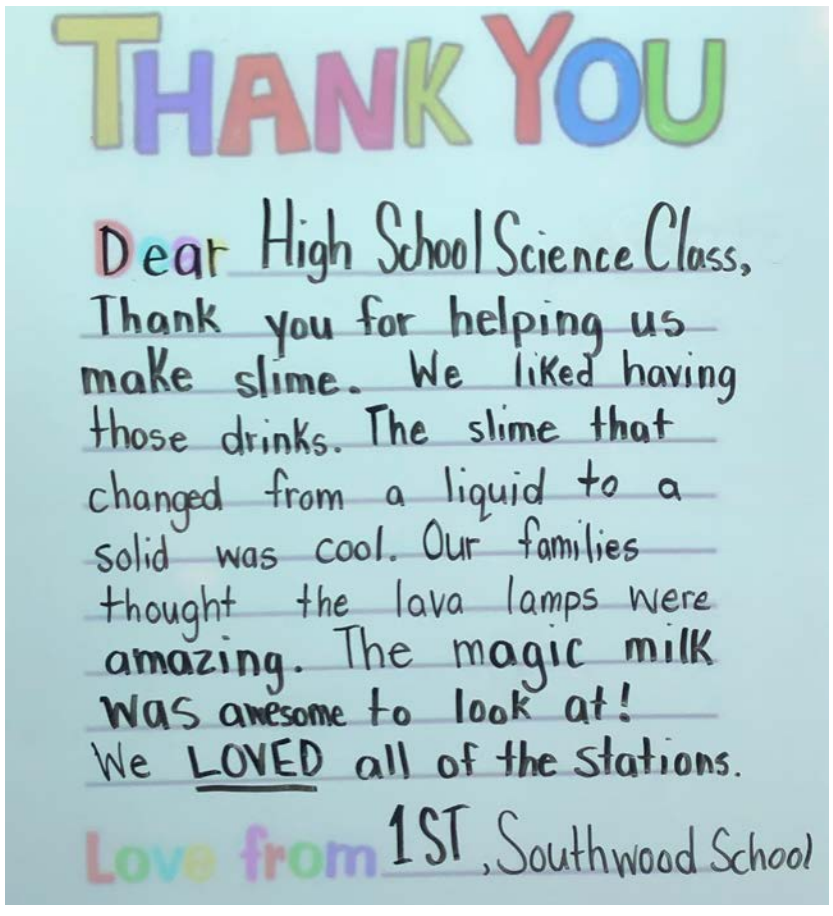
In the morning, grade 12 chemistry students designed “mad science” experiments. We made slime, explored non-newtonian fluids with oObleck, made homemade lava lamps with a reaction between water and alka seltzer tablets, explored acids and bases with an indicator that we could put in iced tea. We explored some mind-boggling demonstrations like Elephant Toothpaste and “bending water” using static electricity. In the afternoon, our students walked to Southwood to work with grade 1 students. They successfully implemented a one-hour session with 5 science stations and 2 demonstrations!

ESSENTIAL QUESTION

Can we bring the fun and exploration back to science? Grade 12 chemistry is a challenging course with a heavy focus on mathematics. We used our innovation day to go back to basics and ask the question WHY and WHAT WOULD HAPPEN IF...?

TEACHER REFLECTION

In the morning, the classroom was buzzing with excitement. There was so much laughter as students collaborated together to create these “mad science” experiments. Who says slime and oobleck is just for kids?! Our students were willing to explore the science on a deeper level and make connections to grade 12 chemistry (while incorporating food colouring and glitter, of course). In the afternoon, our students walked to Southwood School to share their programming with grade 1 students. They prepped organized their stations; slime, oobleck, homemade lava lamps, indicator acid/base iced-tea, psychedelic milk and moonsand. I am so proud of these students, and the willingness to step out of their comfort zones and be leaders in our school community. Overall, it was an awesome day.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

PHY30S
PERIOD 2
Sam Fast

PHYSICS IN ACTION

DESCRIPTION

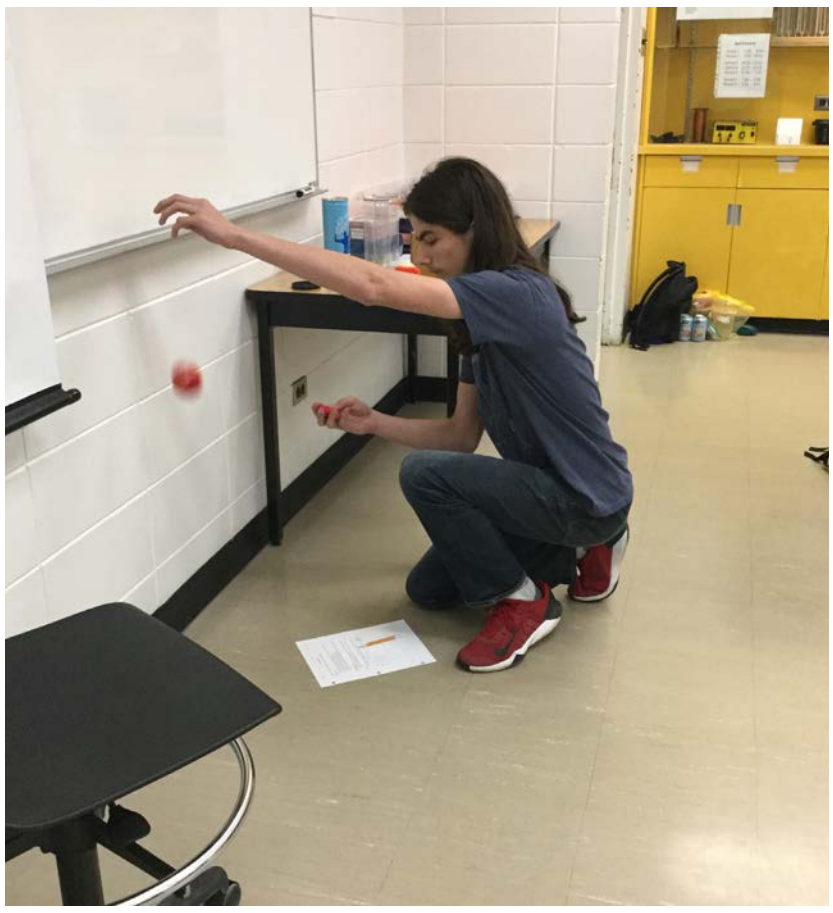
The day started off with a lab in which the time and distance of an object was measured. The acceleration was determined with this data. Theoretically the acceleration should be 9.8m/s2. Up next the distance and time of an object rolling down and up a track was recorded. With this distance and time the average velocity and acceleration was calculated. This data was then transferred into graphs that represented the position, the velocity, and the acceleration of the object. The day was finished with the construction of a Rube Goldberg machine, which had to have a minimum of five transitions of energy between different objects. This "chain reaction" machine had to be planned, constructed, and be in working condition within a time of two hours.

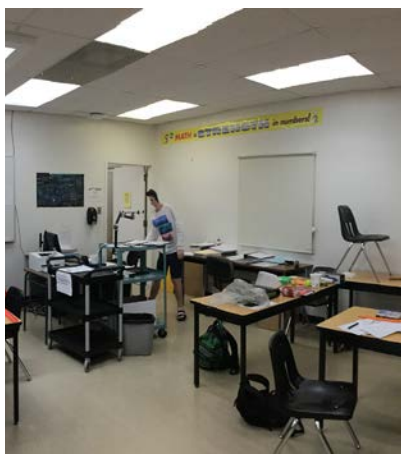
ESSENTIAL QUESTION

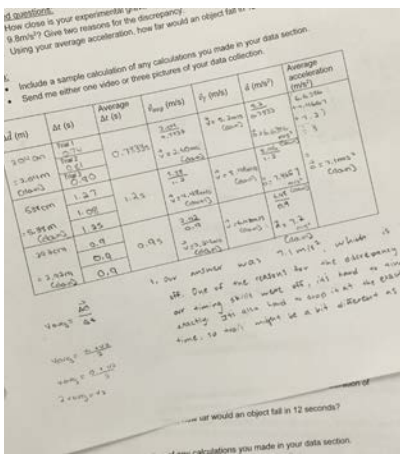
One of the goals of this day was to become more comfortable with the different aspects of motion and to be able to see how they interconnect. Another goal was to provide a context where questions had to be solved cooperatively, which includes identifying ways to solve and actually finishing a variety of problems, especially for the Rube Goldberg machine, which had a time restraint.

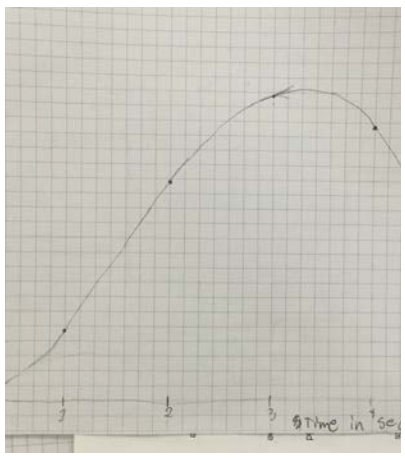
TEACHER REFLECTION

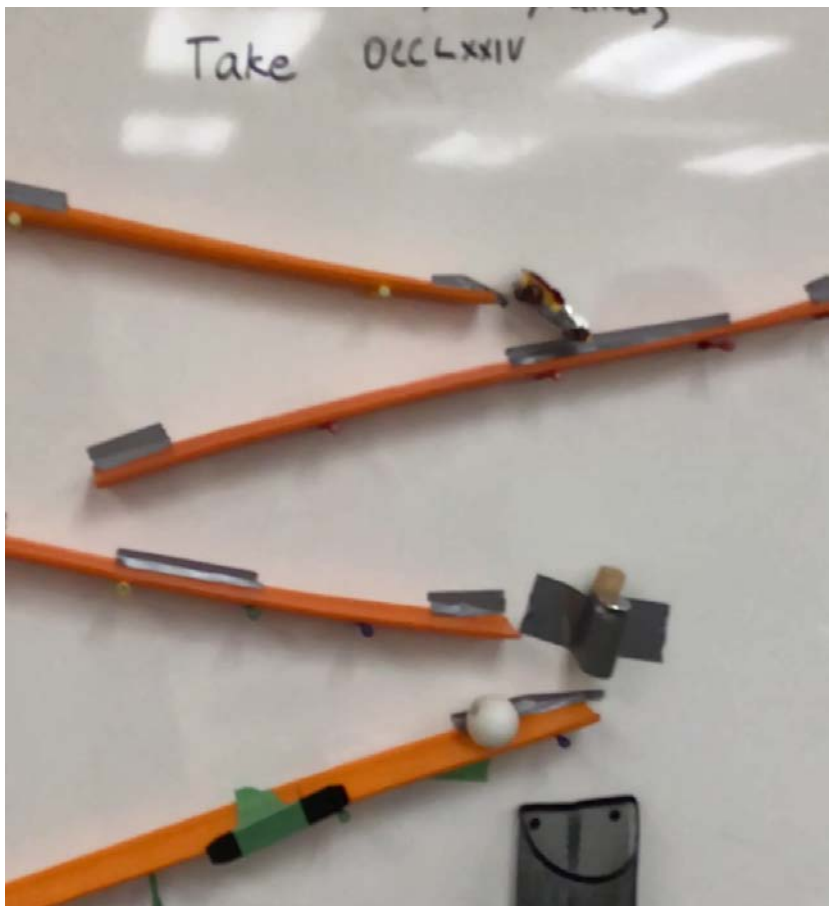
The day went very well with everyone joining together with their partners to tackle the challenges they were presented with. Some amazing graphs have been made, mathematical procedures have been used, and it was impressive to see students making plans to solve problems. Many frustrations have been overcome and worked through. And as you can see in the pictures, many fun and creative Rube Goldberg machines have been created. What is not visible in the pictures are the many test runs, fails, and minutes spent coming up with a plan. But nevertheless, the products were amazing again, which is a good life lesson to learn.











STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Modern Life & Issues (Ethics)

PERIOD 5
Ken Fehr

DEBATING ETHICAL ISSUES

DESCRIPTION

The Ethics students worked on preparing their formal debates the week leading up to our Innovation day. After many hours of research, learning the finer points of rhetoric, and one last opportunity to polish up on their delivery, students came together Wednesday morning to debate. Teams argued the pros and cons of vaping, the death penalty, abortion, and being informed global citizens. After each debate the rest of the class got a chance to ask questions and make their ideas heard. So much discussion took place after each debate that we ran out of time! I'm sure the conversations will continue till the end of the semester.

ESSENTIAL QUESTION

The debates are one of three major assignments given each semester that begins with students making meaningful connections interviewing a moral mentor, followed by debating fellow classmates, and finally writing out their deepest moral values in a personal essay. We've been grappling with ethical issues all semester but for innovation day it was time to make it more formal and go much deeper.

TEACHER REFLECTION

Although there was a lot of nervous energy leading up to the debates the students all did tremendously well. Solid arguments were made by each team but the class discussions that followed were every bit as important in helping clarify the issues swirling around each topic. Each debate began and ended with a vote on Poll Everywhere. Using their phones students "agreed", "disagreed" or were "not sure", and the results displayed in real time on the class screen. There was always a shift, as some students were able to gain new insights from the solid debate/conversation that took place. Al in all, a day to be remembered!

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Canadian History

PERIOD 1

Jolene Tara Fiarchuk

EXPLORING THE WINNIPEG GENERAL STRIKE

DESCRIPTION

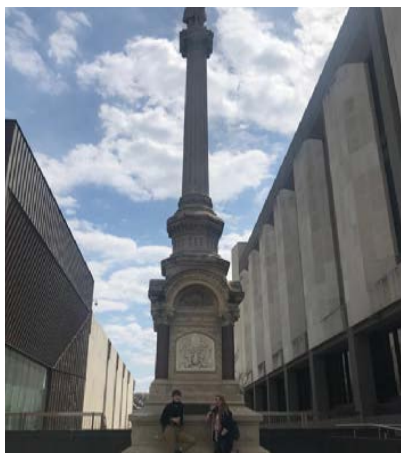
We began our day with a drive through Winnipeg's neighbourhoods, first exploring the stunning mansions along Wellington Crescent that would have belonged to Winnipeg's elite in 1919, and then through the North End noticing how much smaller and close-together the homes were - this is where the workers would have lived in 1919. We had a guided walking tour of the Exchange District and sites important to the strike before finishing our day at the Manitoba Museum where they re-created what Winnipeg would have been like in 1919.

ESSENTIAL QUESTION

We set out to answer four major questions related to history: 1. Where would you stand if you were in Winnipeg in 1919? Why? 2. Whose voices do we hear in the museum/tour? Whose are missing? 3. What evidence is used to help us understand the strike? 4. How does the Strike affect us today?

TEACHER REFLECTION

It's always fun viewing my city through the eyes of my students. Everyone was blown away by the massive houses in Crescentwood, and pretty grateful for their homes in Steinbach after viewing some of the crowded neighbourhoods and conditions around the old factories. The Exchange District is always a pleasure to visit, and we were grateful for the nice weather while on tour. And while some students had been to the museum recently, for the people in our class who are on their first visit, the re-created city was pretty epic. Some favourite features were the movie theatre, the recordings of people who were witnessed the Strike, and all the little buildings we could visit.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Science
PERIOD 5
John Friesen

MCGYVER ELECTRICAL PROJECTS

DESCRIPTION

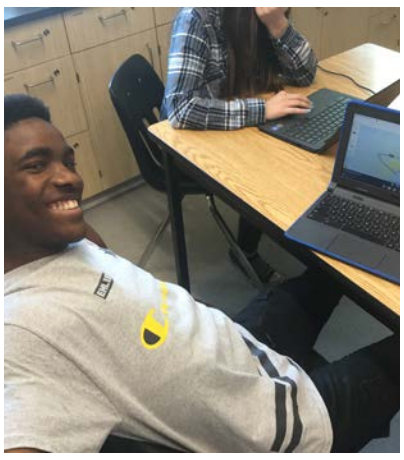
Today we started the day with a lab extracting our own DNA. After that we learned about basic electrical circuits. Next we started our McGyver Activities. Two groups produced voltage from homemade hand crank cell phone charger, one group endeavored to create batteries from nothing more than vinegar, cardboard and pennies, one group build a useless machine, and one group build a solar toy.

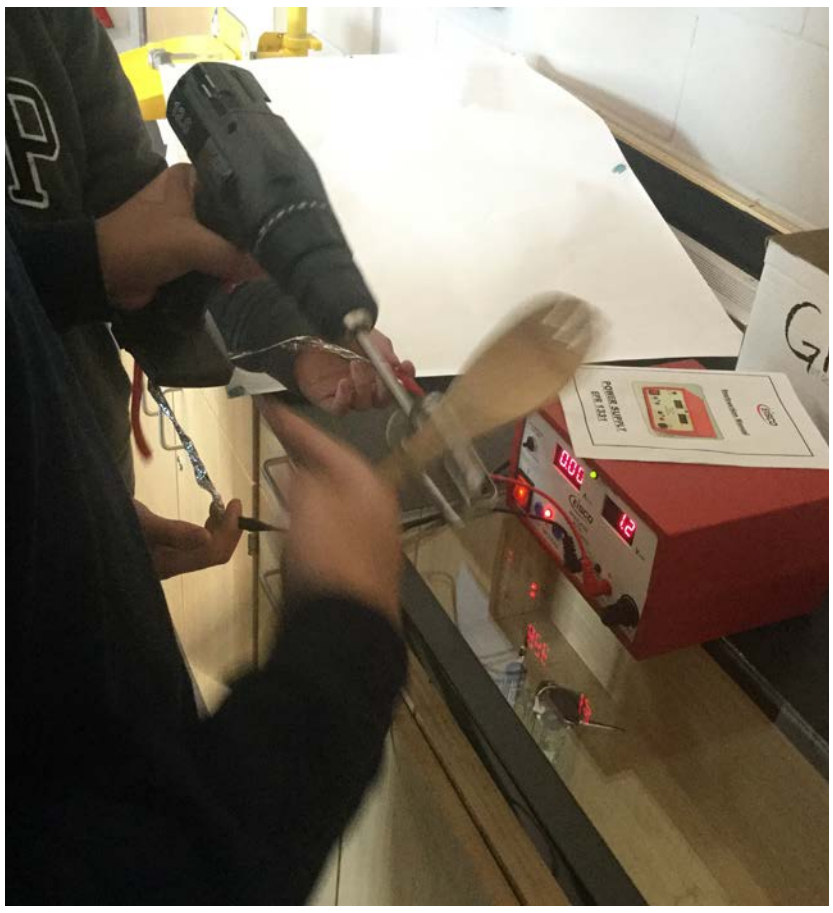
ESSENTIAL QUESTION

We discuss current and potential applications and implications of biotechnologies including their effects upon personal and public decision making. We also recognized and explained the importance of incorporating principles of electrical energy conservation into the decision-making process.

TEACHER REFLECTION

The electrical activity was a particularly great opportunity for a discrepant event. Students without any serious previous electrical experience created devices that were interesting and useful.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Try-A-Trade welding
PERIOD 2
Victor Froese

WELDING A FLOWER

DESCRIPTION

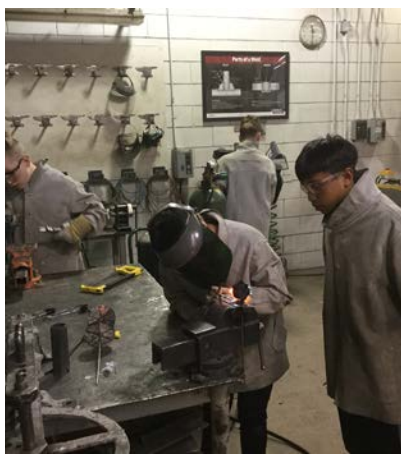
We did a step by step build, from cutting the stem to cleaning and bending the flower petals, cutting and scoring the leaves, and then welding them to the stem.

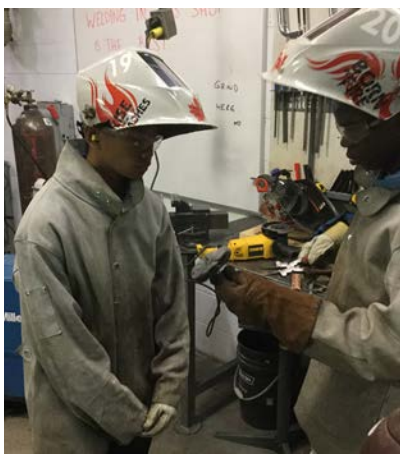
ESSENTIAL QUESTION

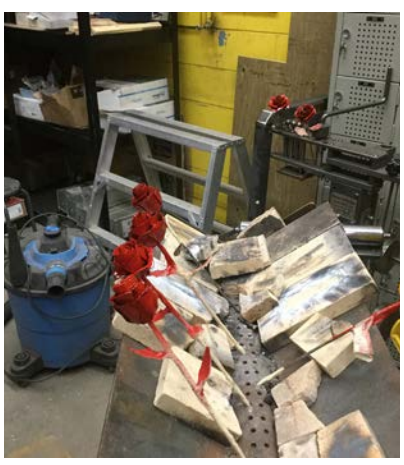
the class worked together in the shop, sharing space and tools,,safely. They had to collaborate and communicate, especially using the oxyacetylene torch with one student heating and the other student saying exactly where he/she wants the heat. It was a great day with the shop buzzing with activity and commorodity.

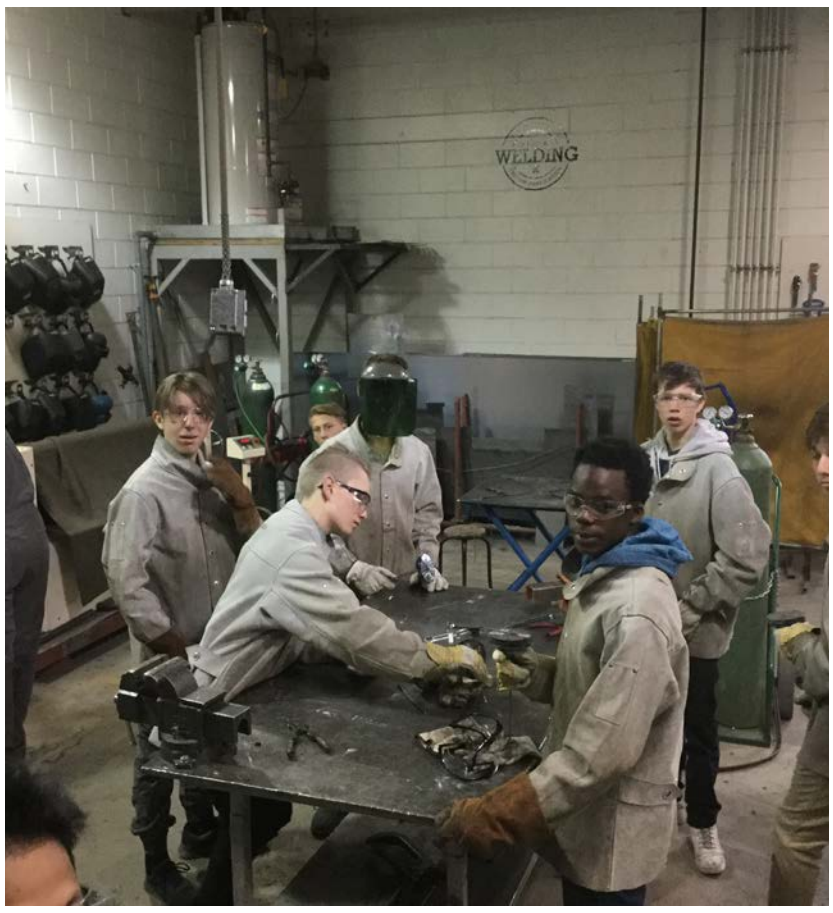
TEACHER REFLECTION

The students were ,, mostly very diligent in their work, but we also stopped for some chatter. They mostly finished in one day what is usually a weeks project.









STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Film Production

PERIOD 6
Andrew George

ONE DAY FILM FEST

DESCRIPTION

Students were put into groups and tasked with creating a video in one day. They were given four days of prep, a randomly assigned prop that had to be central to the plot, and a room in the school. The actors had to remain in the room. Initially, the students were prompted by the concept of detention as the reason as to why a room in a school would be the primary location. However, they were given the freedom to adapt, modify, or outright change the story and plot as long as they followed the previously mentioned parameters.

ESSENTIAL QUESTION

How can you create a unique story while given generally similar setups? Students were assessed on their ability to create a film that had a complete and resolved story arc. In the end, the focus on a assigned prop helped shift the focus of each film.

TEACHER REFLECTION

Creating a film is not an easy task. There's been a tremendous amount of growth along with your typical growing pains during our semester. The timing of innovation week was perfect for students, each of whom developed a specific skill set up until this point and were able to put that skill on display under pressure. This activity was meant to show them what filmmaking is all about -- collaborative storytelling using technical tools, problem solving, improvisation, and teamwork.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Clothing, Housing & Design

PERIOD 6

Lotte Giesbrecht

DESIGNING A BEDROOM THAT GROWS WITH YOUR CHILD

DESCRIPTION

Students were tasked to find furnishings and accessories at IKEA for a child's bedroom that would grow with a child from infancy to pre-teen and present their design in google slides. This included developing a character sketch, an interior design style, a budget, and taking pictures of rooms for inspiration, furniture, and product name and specifications.

ESSENTIAL QUESTION

My class joined Mrs. Wilson's Grade 11 Family Studies class the day before to discuss interior design styles and the needs of children throughout this developmental stage. The project included specified room dimensions and budget, along with referencing an article that examined important aspects to consider including the functionality and cost of furnishings and accessories.

TEACHER REFLECTION

It was great to work collaboratively on this common learning goal, as many students have previous design knowledge learned in the Clothing, Housing & Design courses and of the developmental stages of children learned in the Family Studies courses. The budget was an important aspect to consider, as many students found that they needed to make informed and innovative decisions in order to design a bedroom that would grow with the child. Many students were extremely thoughtful of their design choices, questioning whether their child's character sketch would be reflected in the room they designed.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Chemistry
PERIOD 5
Sidney Greenstone

THE HOLLOW PENNY

DESCRIPTION

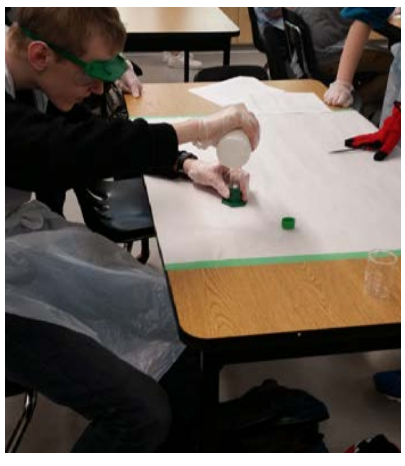
American pennies are made of copper, aren't they? The outside is certainly made of copper, but that's not the whole story. Before 1982, pennies contained about 95% copper and 5% zinc. After 1982, however, the composition of pennies was changed to contain mostly zinc and only a small amount of copper. In this activity the class observed the difference in copper and zinc composition in post-1982 pennies.

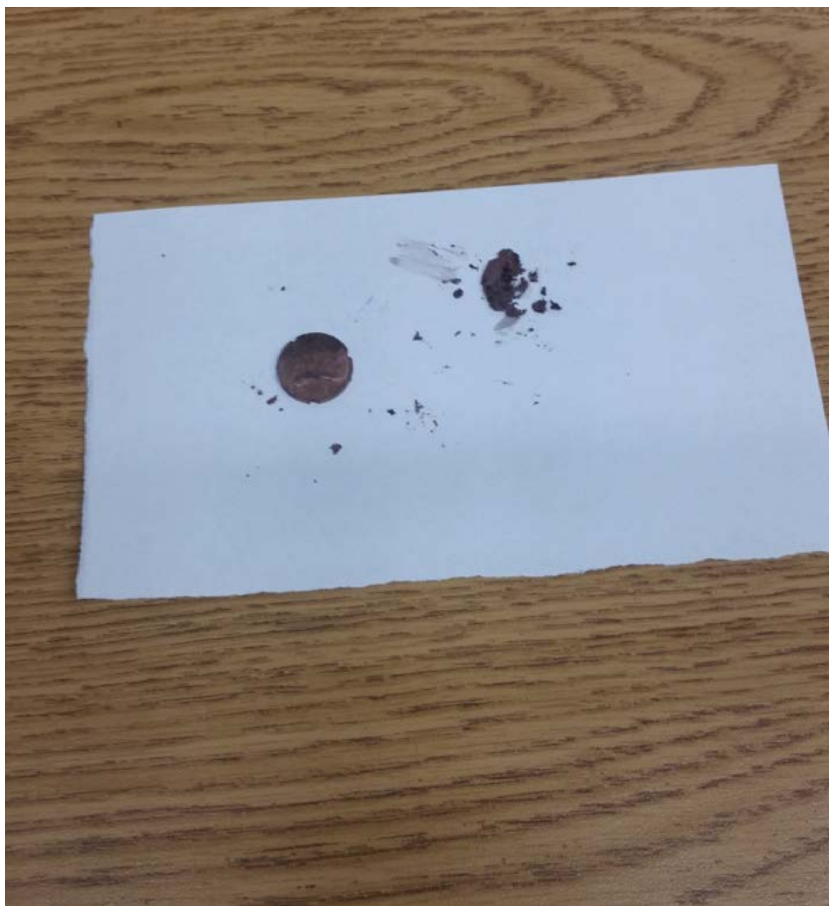
ESSENTIAL QUESTION

Using the chemical knowledge of single-replacement reaction knowledge the students set out to extract the zinc from the post-1982 pennies. The penny fizzed due to the generation of hydrogen gas from the hydrochloric acid. The reaction was allowed to proceed overnight. All that remained of the penny was the ring and the outer foil of copper. The pre-1982 penny remained intact.

TEACHER REFLECTION

The activity went better than expected. All students were keenly involved in the activity. They asked many questions and realized how this hands-on activity fits into the activity series of metals. They had no idea that pennies could have different compositions,





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Automotive Technology

PERIOD 5
Mark Gretsinger

BUILDING REMOTE CONTROL LEGO CARS

DESCRIPTION

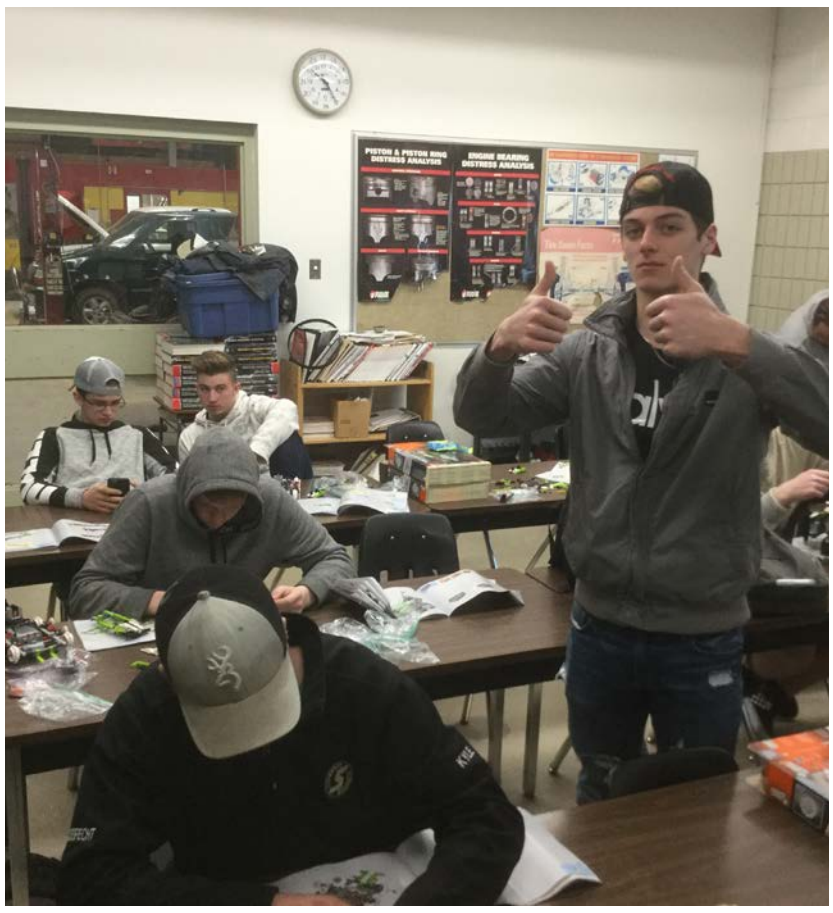
Students were expected to assemble Lego RC cars from a kit. This took 2-3 hours, followed by optional activites such as Lego Car soccer, Tug-O-War, Obstacle Course (design their own).

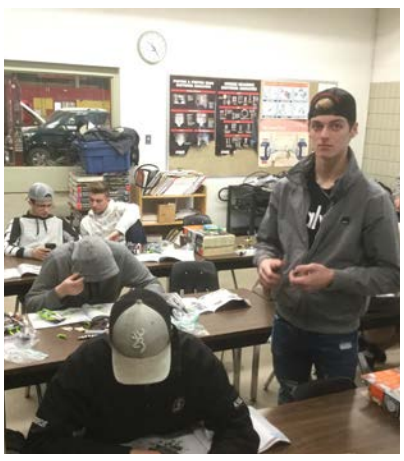
ESSENTIAL QUESTION

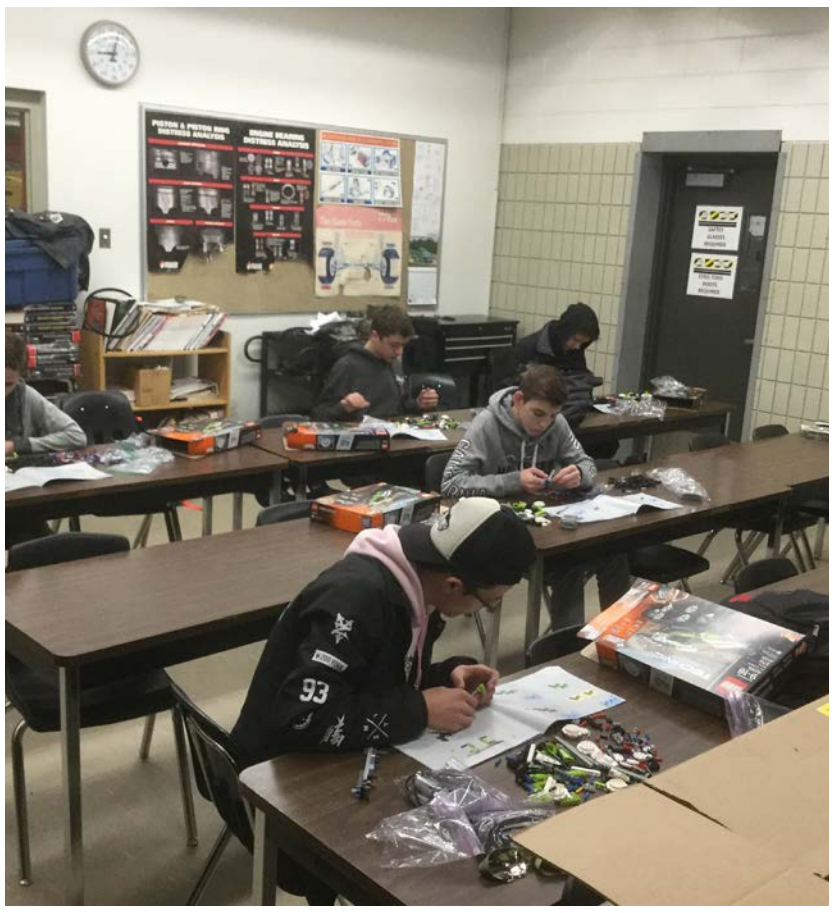
I wanted to challenge the students with a project based learning activity requiring a longer amount of time concentrating on a complicated task - no “googling” allowed. Co-operation among students was encouraged.

TEACHER REFLECTION

I expected all the students would be able to complete the project, but some found it overwhelming to concentrate on a single task for that amount of time. Some were surprised how quickly lunch time arrived. One student commented “Where can I get one of these for myself? I want one!”







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Canadian History

PERIOD 5
Patrick Jackson

TOUR OF MCGREGOR ARMOURY

DESCRIPTION

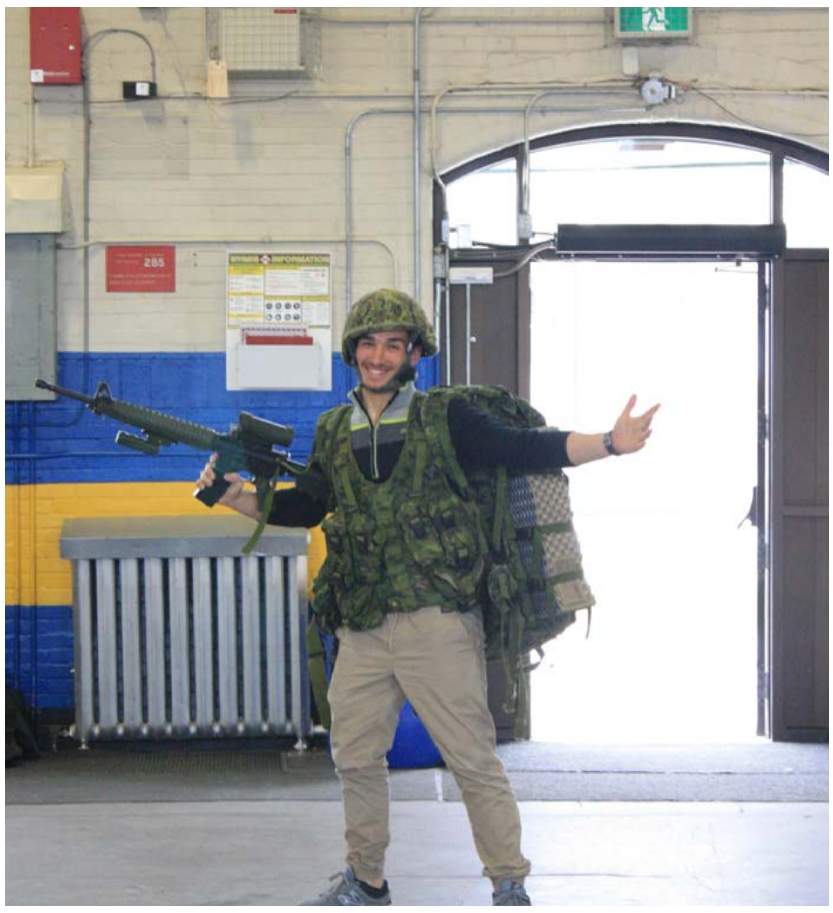
The students got to tour the museum at the McGregor Armoury. Along with the museum tour, the students got to handle various pieces of military equipment. There was an armoured vehicle, weapons, detonation gear, and body armour. This was a great glimpse into the reality of being in the Canadian Military.

ESSENTIAL QUESTION

This trip had a few points to the day. This was a great opportunity for the students to learn about the weapons used in WWI. It also taught the students about the modern day Canadian Army. Along with the content learned, this trip offered a change of pace from the class.

TEACHER REFLECTION

This trip was an awesome experience. Everyone involved had an engaging experience. The opportunity to ask questions of the military personal and handle the equipment was interesting, and everyone seemed to have fun in the process. This was a very popular trip with the students, and I would definitely go again.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Dance

PERIOD 3

Eden Alexandra Jamieson

A TASTE OF LATIN CULTURE

DESCRIPTION

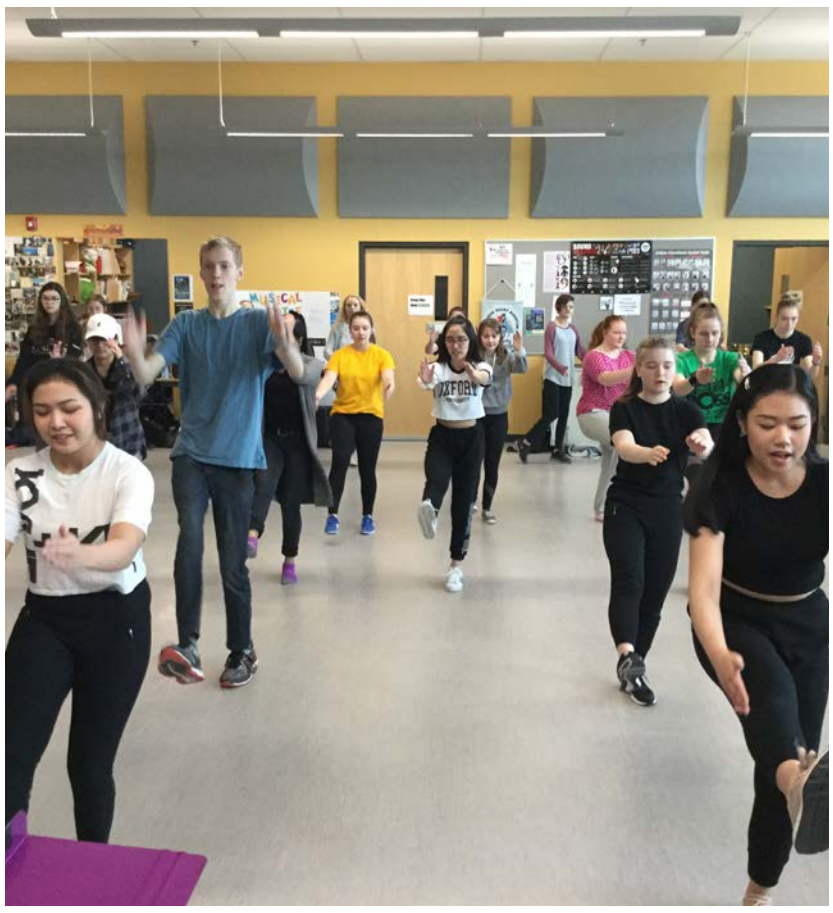
The Grade 11 Dance class spent the morning with Ms. Peters and the Chamber Choir, we started with some getting to know you activities and warm-ups. Once everyone was awake and warmed up, the dance class taught the choir class a section of an African/Ballet fusion dance choreographed by the National Ballet School of Canada, which they are learning for an event later on in the month. Once the choir learned the dance, they taught the dancers an African song which included some “choralography”! In the afternoon, the dance class had a Dancehall (Jamaican “hip hop”) workshop lead by Brett from BOSS Dance Academy. The students were expected to give their best effort through every part of the day, and work together to help each other through the task at hand.

ESSENTIAL QUESTION

One of the main goals of the day was to learn about types of music and styles of dance from different cultures and places around the world. The day required the students to communicate, collaborate, and create. There is so much curricular overlap with choir and dance, having the ability to work together and bring both art forms together to meet various curricular goals was wonderful.

TEACHER REFLECTION

The day was busy, packed with excitement and lots of activities. The Grade 11 Dance class took every single challenge thrown at them and excelled in sharing their dance, learning a song, and learning new choreography. The class worked well with one another, with the choir, and were gracious hosts to our guest. The students were able to take their music counting skills into the choral piece, and work on their demonstration and explanation skills when sharing their choreography. The day flew by, and fun was had by all!



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Spanish

PERIOD 6

Joel Alexander Janke

TEACHING SPANISH TO AN ELEMENTARY CLASS

DESCRIPTION

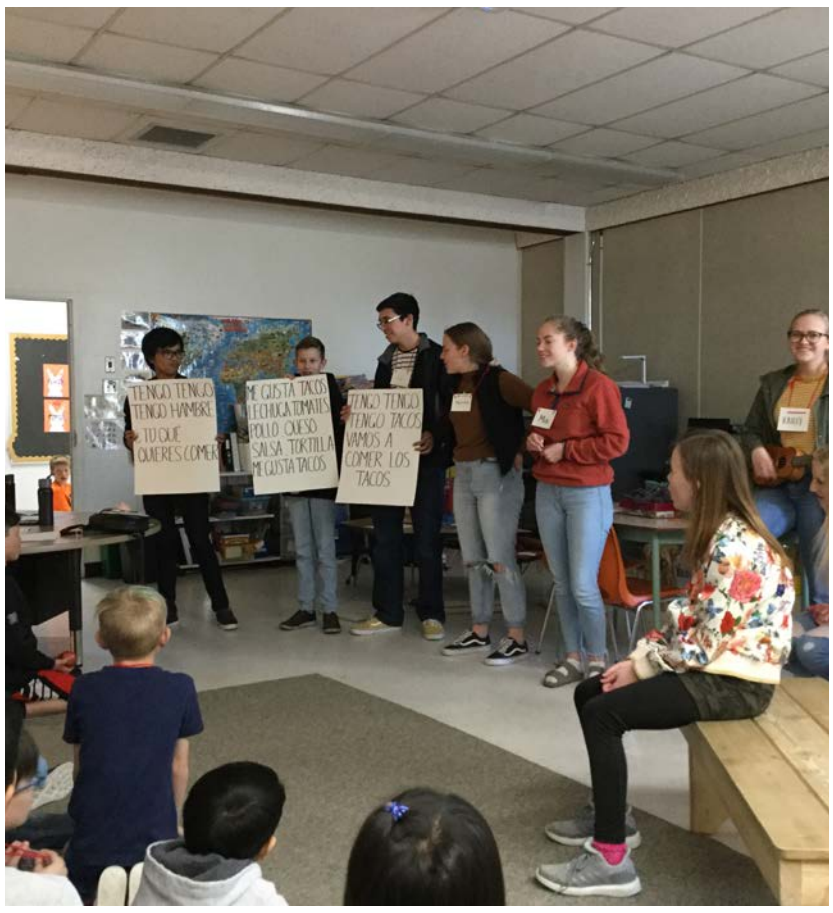
The Grade 12 Spanish class prepared a Spanish lesson stations in groups with the theme of preparing and eating tacos. The day was then spent with the 3/4J class at Southwood School. They taught each station 3 times for ~25 minutes each to groups of 7 students in the morning. In the afternoon the focus was to review the content and then eat tacos together as a whole group. The lessons consisted of games, speaking activities, competition and singing and resulted in an amazing collaboration.

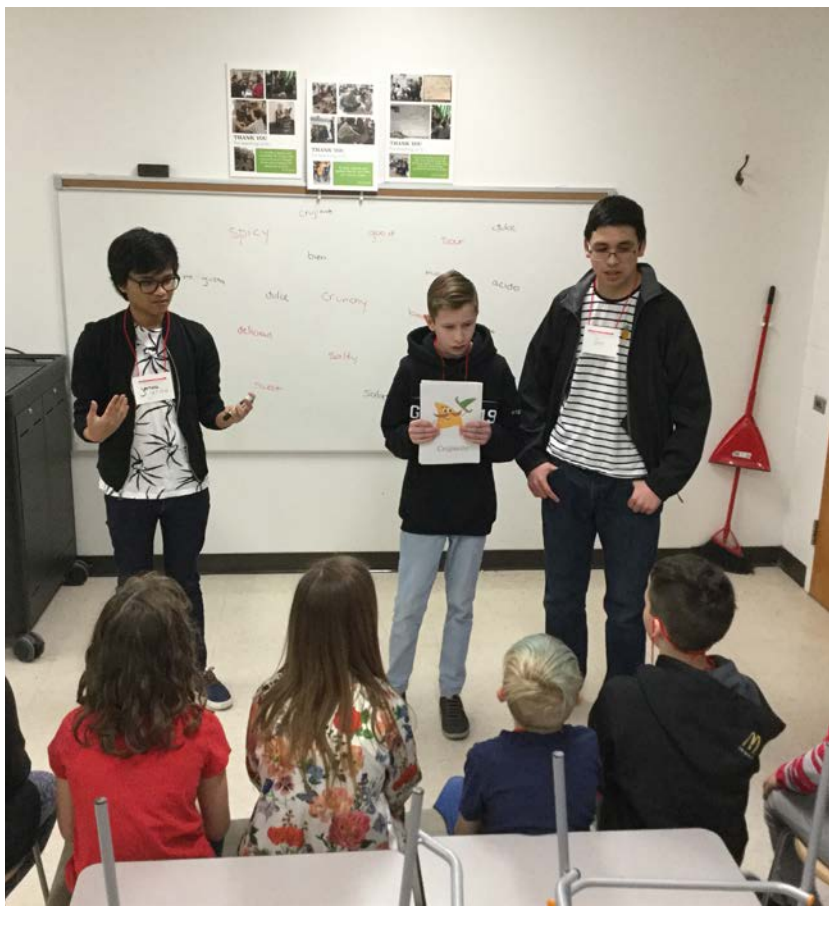
ESSENTIAL QUESTION

- How can students collaborate to build community through Spanish? - How can we use Spanish in ways that is relevant to a grade 3/4 class? - How do we create a lesson to teach a language to students we do not know whom do not speak Spanish yet? - How do we make these lessons fun and engaging?

TEACHER REFLECTION

Overall, the day was a huge success. The grade 12 students embraced the day from the moment the lesson planning began. It was amazing to see them come together and be creative with the lesson ideas. Seeing them then execute the lesson and teach it to a group of 23 3rd and 4th graders was the icing on the cake. They jumped in head first by engaging with their new students for the day and made an immediate impact.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 English
PERIOD 6
Jessica Jones

ACROSS THE BOARD CAFE

DESCRIPTION

My Grade 10 classes and I spent our innovative day learning and playing a variety of popular games at Winnipeg's Across the Board. Upon arrival the staff gave us a brief description of how the Cafe works, and the students were given free range to choose games that interested them. They were required to work as a team, play the game in its entirety, and have fun! At first, most students picked games that were familiar to them, but as the day progressed we were challenged to pick up and learn a new game. Students comprehension, communication, and collaboration skills were put to the test. The Cafe provided us with a buffet lunch that the students enjoyed while they were playing their games, and staff were circulating, introducing new games to tables who wanted recommendations.

ESSENTIAL QUESTION

This year we have paid close attention to these C's: comprehension, communication, critical thinking, collaboration and community. Games were an easy and effective way for us to engage our thinking and use all of these C's.

TEACHER REFLECTION

I was impressed with my experience at Across the Board. I was pleasantly pleased that students were very cooperative, and I was able to watch relationships form between students who don't often interact. The students learnt the importance of the C's we have been working on in class and were actively aware of them while they were playing the games. I learnt that I should use games more in class to support relationship building, collaboration and community.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Physical/Health Education

PERIOD 4
Henry Kasdorf

ACTIVE HEALTHY LIFESTYLES

DESCRIPTION

The Physical/Health Education (PHE) day was split into three sessions that our students rotated through. The sessions were: wheelchair basketball, heart rate monitored circuit training (tabata) and a health and wellness presentation which focused on stress management. Students were in each session for approximately one hour, forty five minutes. Our expectations revolved around the theme of active healthy lifestyles, therefore, we planned a variety of different activities that achieved that goal.

ESSENTIAL QUESTION

The essential question that we wanted our students to be able to experience was what does an active healthy lifestyle look and feel like. Students were introduced to two new experiences, wheelchair basketball and a heart rated monitored tabata circuit.

TEACHER REFLECTION

Overall, our day was very successful. Students learned about different strategies to manage stress in the presentation from HSD Social Worker. Students got to experience wheelchair basketball and now have a better understanding of how difficult this sport is. Finally, in the tabata workout, our student experienced what a quality, full body workout feels like. This day demonstrated to the students that an active healthy lifestyle can be achieved in many different way.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

HCA 30F Grade 11 Canadian Studies

PERIOD 6
Ward Kay

EXPLORING THE ST. BONIFACE MUSEUM AND CATHEDRAL

DESCRIPTION

Our class toured the St. Boniface Museum and Cathedral. First we learned about the history of the Red River settlement and the story of Louis Riel. For the second part of the tour, we experienced the story of the St. Boniface Cathedral and its grounds. Students were to take photos during the trip and then choose 5 photos to create a slide presentation of their experience.

ESSENTIAL QUESTION

Students were to consider these questions: 1. Choose 5 significant photos that best represent your experience at the St. Boniface Museum and Cathedral. 2. As you tour the buildings and grounds, you will see many historical objects and learn about figures from Manitoba's past. Consider what the displays say about Canada, Manitoba, and its peoples, both Indigenous and non-Indigenous.

TEACHER REFLECTION

The St. Boniface Museum allows students to experience Manitoba's history first hand, on the very ground and in the buildings where some of that history was made. Students are able to explore and consider a variety of objects and their stories to gain an appreciation of what life would have been like 150 to 200 years ago. I appreciated the opportunity to take my students out of our school setting to show them a different part of our province.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Visual Art

PERIOD 4
Neil Klassen

EN PLEIN AIR - ENVIRONMENTAL PAINTING

DESCRIPTION

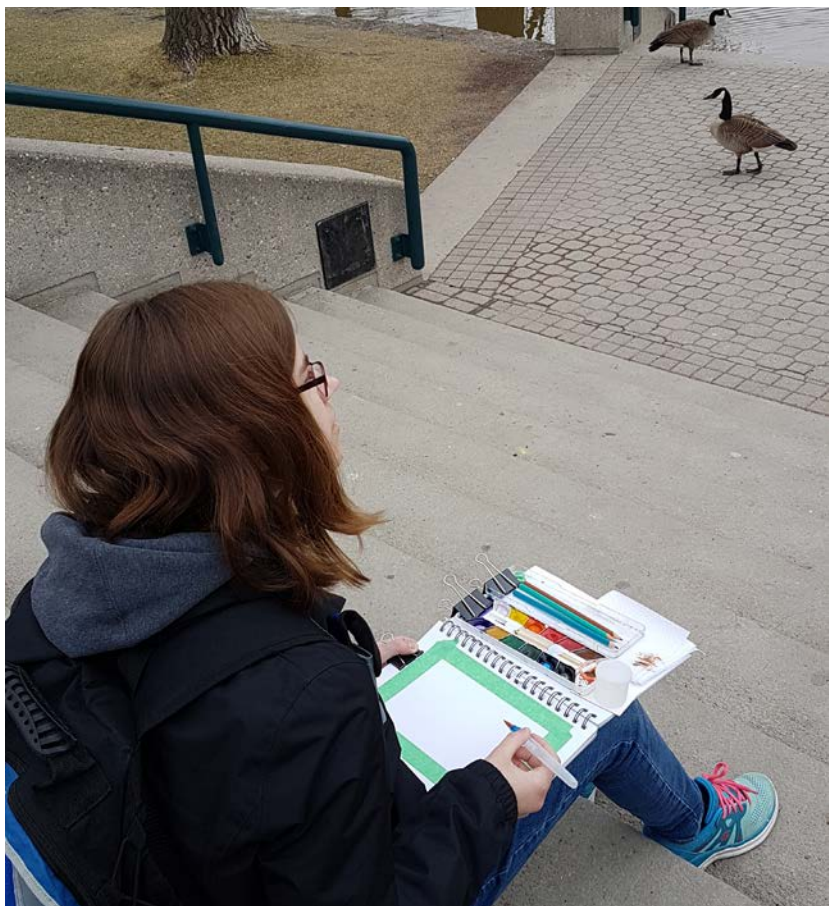
En plein air (translates as “in the open air” from french), is the practice of drawing and painting an environment while experiencing the very environment the artist is drawing or painting. We went to the Forks in Winnipeg to conduct sketching and watercolour studies of the scenes we saw. We worked both in the Forks Market building as well as outdoors near the river to find interesting subject materials to paint.. Students were immersed in a new and stimulating environment; experiencing and being influenced by not only the sights, but sounds, smells, sensations and even tastes that the environment provided.

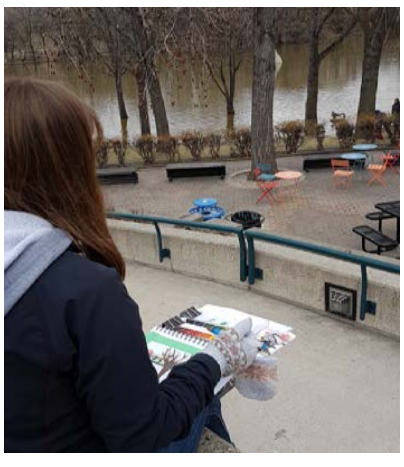
ESSENTIAL QUESTION

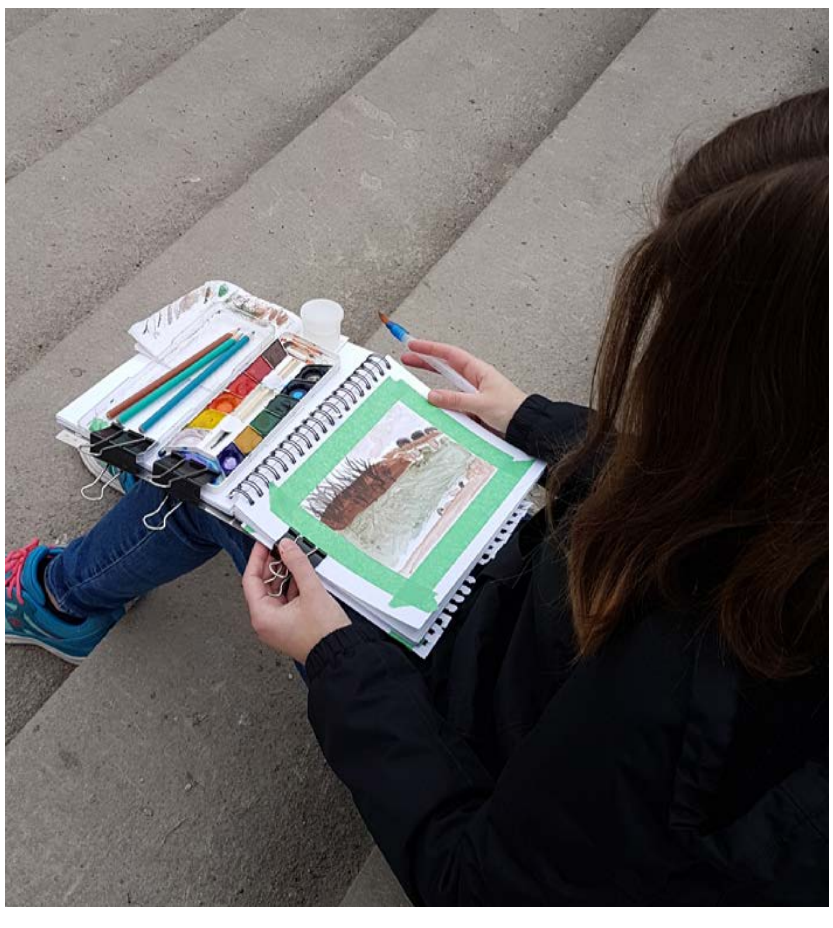
The day was intended to get students out of the studio and classroom to work outside of the normal creative space. This allows students to realize that creativity occurs everywhere and they can make meaningful connections with an environment and see how that affects their work and creativity.

TEACHER REFLECTION

Students enjoyed their day at the Forks, drawing and painting environments that they do not normally find themselves in to create art. Even though the weather was a little cold, the class toughed it out and produced excellent renders in their sketchbooks. This was a first time for most, making art in the open. It was clear that the activity was appropriate and enjoyable by the class. A bonus was to get great food at lunch and enjoy the atmosphere at the Forks. One thing I would do differently next time, is to get students to figure out their art gear, and practice en plein air techniques at school prior to the field-trip.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Esthetics

PERIOD 5
Roxanne Kroeker

BEDAZZLED AND CERTIFIED

DESCRIPTION

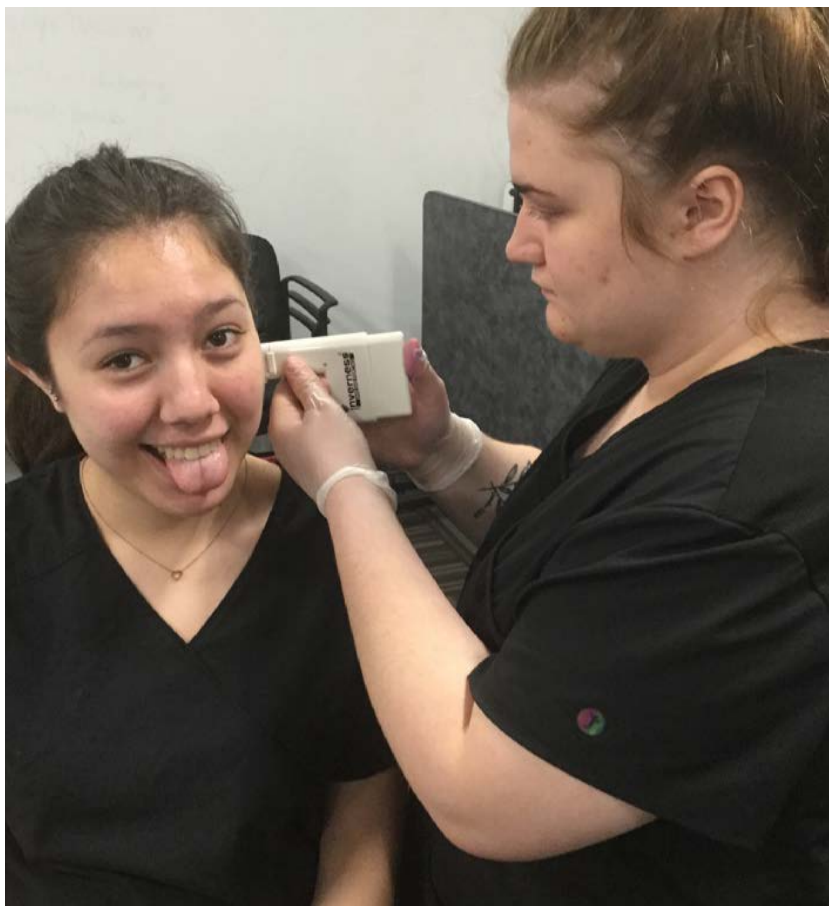
The day began with a friendly game of “Operation” to steady our hands and to get ready for piercing! An educator from the “Inverness Safe Piercing System” joined us with some theory and product knowledge, followed by piercing demonstrations. After several piercing attempts on foam ears and rubber noses, we were ready to pierce each other! Or were we....Yikes! The expectations for the day was for each individual learner to achieve this piercing certification.

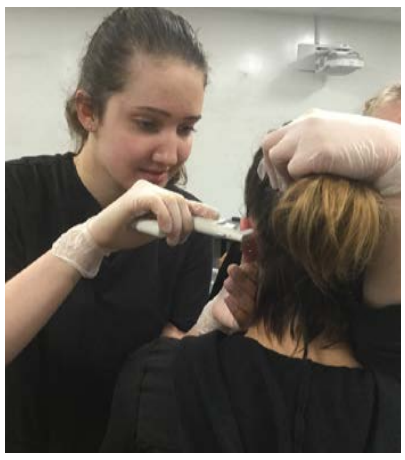
ESSENTIAL QUESTION

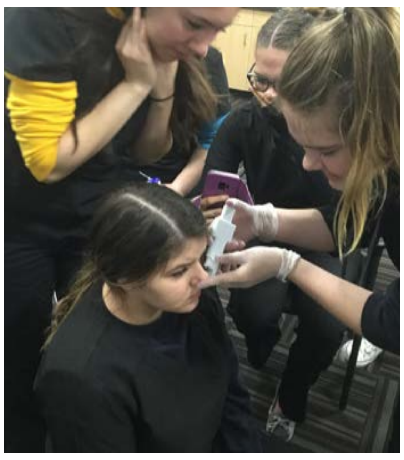
Keeping up with the trends is key to a successful career as an esthetician. Ear piercing is a curricular outcome for our trade. We broaden this portion of the curriculum by inviting the educator from “Inverness Safe Piercing System” to certify our learners with this specific system. Communication is an essential component to this learning to ensure successful results.

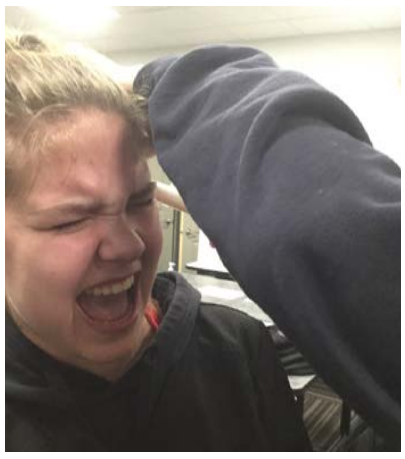
TEACHER REFLECTION

The day went by very smoothly. The girls were so excited to perform and receive the piercings (although a little nervous)! The entire class had the opportunity to actually perform ear piercing (including cartilage) as well as nose piercing, earning themselves certification with the “Inverness Safe Piercing System”. The final verdict; everyone left bedazzled, certified, and all agreed that the nose was much more painful to get pierced than the ears!









STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

grade 12 chemistry
PERIOD 6
Mark Kubanek

ELECTROCHEMISTRY

DESCRIPTION

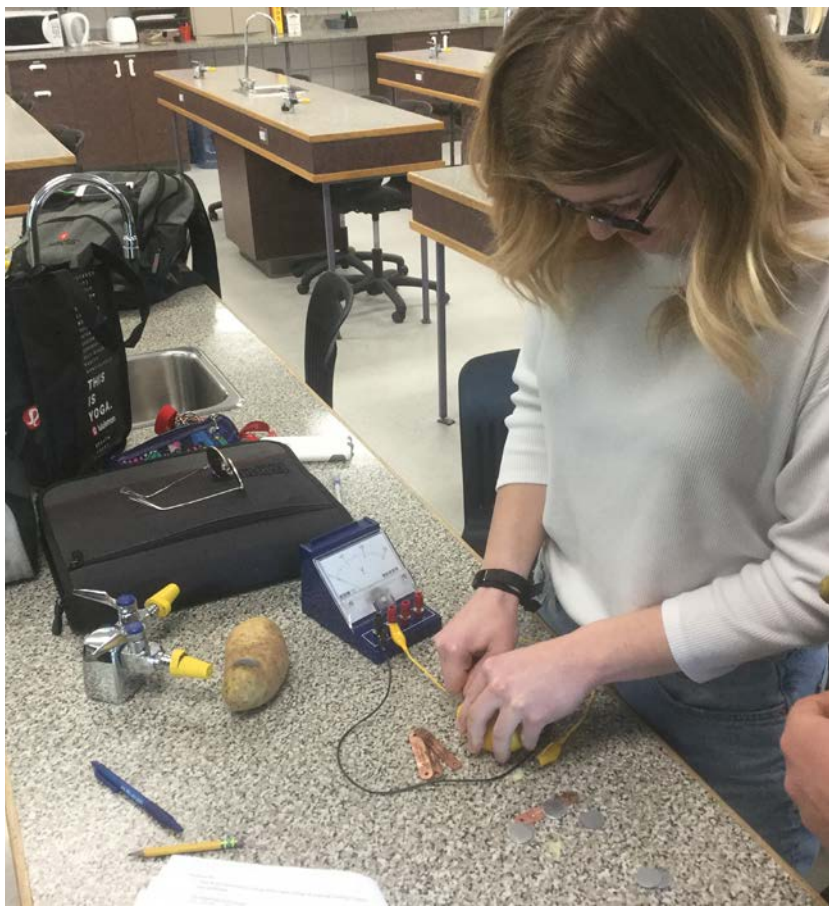
Energy usage: where we get it and where we will get it in the future. Who will solve the challenges as we shift to renewable energy. Background: redox reactions and the history of batteries Lab : make a simple battery. Can you produce enough energy to light a LED? Lab: dissect a battery. Future battery developments.

ESSENTIAL QUESTION

Who will solve the problems that we face? How does a battery work? Why do we use lithium in modern rechargeable batteries?

TEACHER REFLECTION

Class size (5-6 students) really lacks the energy and takes away from student teaching student learning. This turned good labs into flops. Adding background (discussion and videos) really provided good context to frame the labs.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Female Fitness
PERIOD 2
Courtney Lynn Kwasnitza

BIRDS HILL HAZLENUT TRAIL HIKE

DESCRIPTION

We took our female fitness classes out to Birds Hill Provincial Park to participate in an outdoor hike to experience exercising in the outdoors. The trail we hiked was called the Hazlenut Trail and was 8.5km long. As a large group of three female fitness classes, we hiked the trail, stopping for lunch at a nice picnic spot halfway through the trail. The goal of this learning trip was for students to experience how exercising outdoors felt for them personally and to introduce the classes to alternative forms of physical activity that we cannot offer at our school. We expected everyone to bring an open mind and their best effort to our hike!

ESSENTIAL QUESTION

Our main goal for the day was to expose students to a new type of physical activity they may not have experienced previously. We wanted to show our students that we can combine building community, the outdoors, physical activity, and hopefully some fun all in one. We hope that we have helped some find enjoyment in exercise that they can carry into their futures outside of the SRSS.

TEACHER REFLECTION

We had an amazing day with our female fitness classes! The weather was not ideal, but we made the best of some cold/snowy conditions. After having our students reflect on how they felt mentally and physically throughout the day, we found most of them felt well accomplished after completing our hike. The students made it clear they enjoyed being outdoors for the day and “escaping” the normal indoors, even despite the weather. I would say we were successful in exposing the classes to a new realm of activity that may not have previously been considered. Overall, we enjoyed a great day filled with lots of smiles and lots of laughs on a very scenic trail!

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Science

PERIOD 2

Kathryn Labiuk

CAN YOU KEEP IT SAFE?

DESCRIPTION

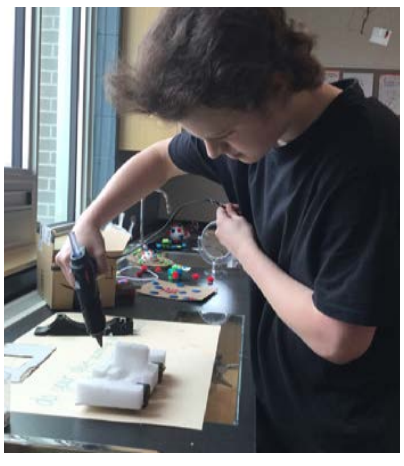
Students spent the first part of their day designing and constructing their car. They had to think about esthetics and construction but also safety considerations as they needed to protect their passenger (a raw egg) . The rest of the day was spent competing against each other in terms of speed, friction and crash test readiness. Students then filled out a reflection portfolio that summarized their learning and understanding of Physics.

ESSENTIAL QUESTION

The day was designed around the “In Motion” unit with a focus on Newton’s Laws, Motion, Impulse and Friction. Students used their collaboration and communication skills and had fun with the competition aspect too!

TEACHER REFLECTION

First time doing this project - was pleasantly surprised at the variety in the designs and how well each car ran and protected it’s egg. I also liked how the groups wanted to compete against each other and see each other’s progress instead of working on their own. There was lots of smack talk. Next year will need to buy more eggs and adjust the portfolio a bit - but otherwise everyone seemed to have a good time. This was the final project for the unit.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Social Studies
PERIOD 6
John Darcy Laninga

RIGHTS AND INDIGENOUS PEOPLES IN CANADA

DESCRIPTION

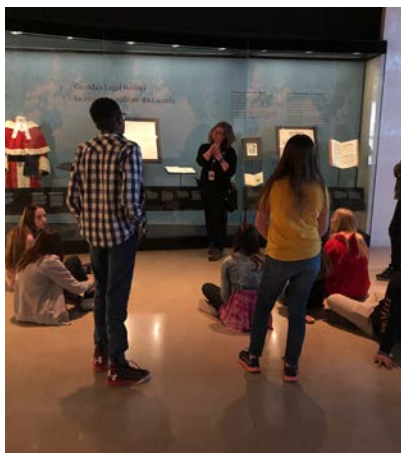
The 'Rights and Indigenous Peoples in Canada' program allows students to experience stories, perspectives and a 360-degree film that inspire young people to take a positive role in reconciliation among Indigenous and non-Indigenous peoples. I wanted my students to learn more about the history of Indigenous peoples in Canada as well as the ways in which they can contribute to the reconciliation of Indigenous and non-Indigenous communities. This learning trip functions as a key component of our unit on Canadian Human Rights.

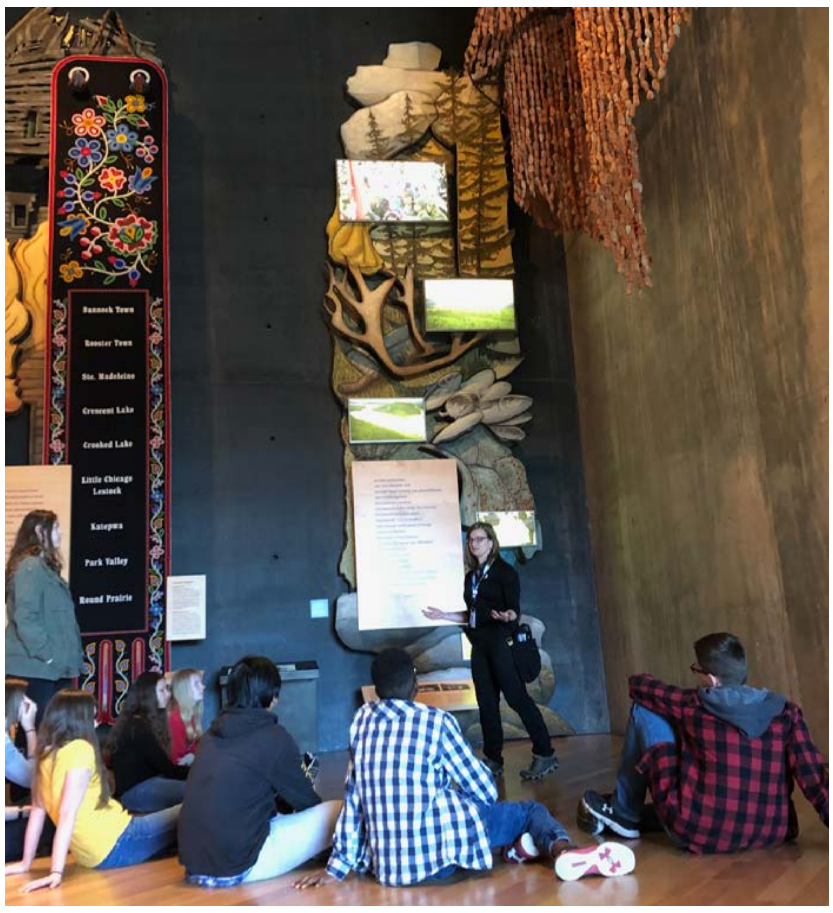
ESSENTIAL QUESTION

What are examples of the ways in which First Nations, Inuit, and Métis peoples are rediscovering their cultures? Can we foster a willingness to support the vitality of First Nations, Inuit, and Métis languages and cultures? Can we provide examples of opportunities and challenges related to First Nations treaties and Aboriginal rights?

TEACHER REFLECTION

On May 9, I was able to take my Period 6 Social Studies class to the "Rights and Indigenous Peoples in Canada" program at the Canadian Museum for Human Rights in Winnipeg. Over the course of the two-hour program, my students experienced stories and recollections about the history of Indigenous Canadians. The program instructors led my students through a variety of exhibits that ranged from historical artifacts to digital displays to oral history listening stations. Students were provided with opportunities to ask questions and discuss their thoughts and feelings about the history of Indigenous peoples in Canada. These were activities that apply directly to the Social Studies curriculum.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 English
PERIOD 3
Lauren Laninga

ANIMAL CAPTIVITY AND ENDANGERED ANIMALS

DESCRIPTION

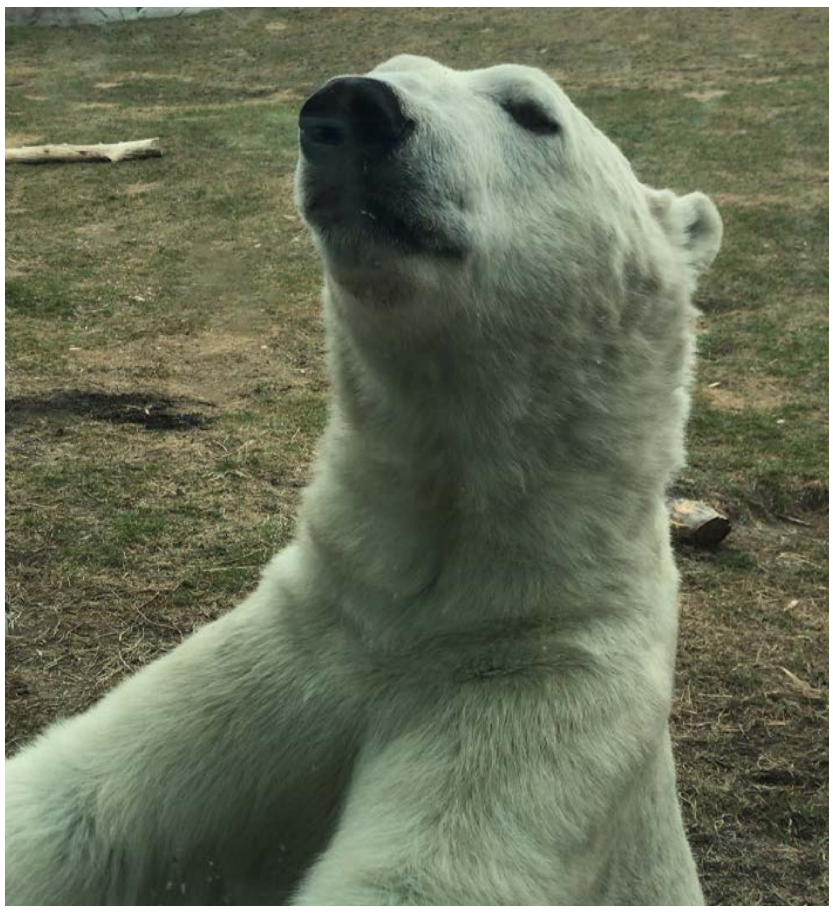
The day started off with students participating in a scavenger hunt. This scavenger hunt required students to look for both positive and negative aspects of the zoo such as “dirty enclosures”, “artificial watering holes”, “education that the zoo provides”, “conservation efforts by the zoo”, etc. In the afternoon, students were given a guided tour and a presentation about endangered species and how the zoo is helping them. The expectations for the day were for students to take their prior knowledge about animals in captivity and apply it to firsthand experience by asking big questions to an expert!

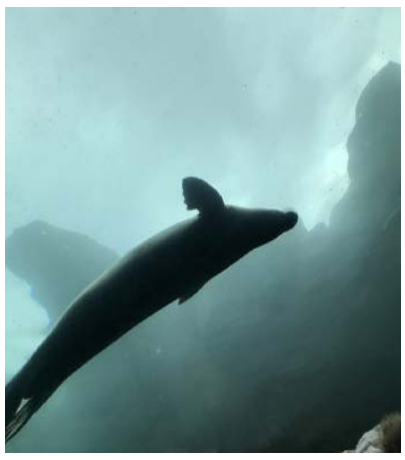
ESSENTIAL QUESTION

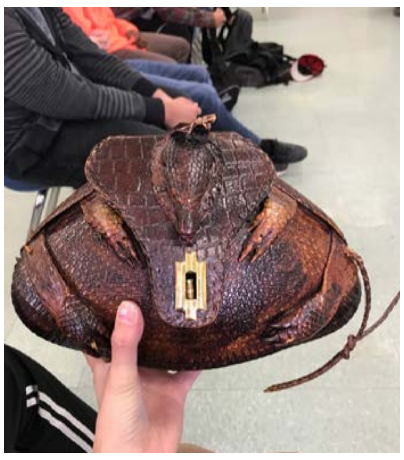
Students just finished up a unit on animal captivity, focusing on theme parks and zoos. Students were focusing on the following Cs: collaboration, critical thinking, and curiousity. After the completion of this, students will be choosing between theme parks like SeaWorld and Marineland or Zoos, and writing a persuasive essay about whether they or for or against them.

TEACHER REFLECTION

This learning trip proved to be very successful. Students were able to apply ideas and information that they had learned in class to real life experiences. Students were also engaged in the presentation and asked critical and thoughtful questions. This learning trip also helped shape student ideas and allow them to develop opinions. For some students, these opinions remained the same, and for others, the education they were given helped them form new opinions. The day also allowed students to grow in closer relationships with each other, or strengthen pre-existing relationships. This was also a positive way for me, as a new teacher, to create trusting relationships with students in a fun, but educational, learning environment.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

ELDC30S (DC fundamentals) electrical

PERIOD 4
Gerald Levesque

BLINKER CIRCUIT BOARD

DESCRIPTION

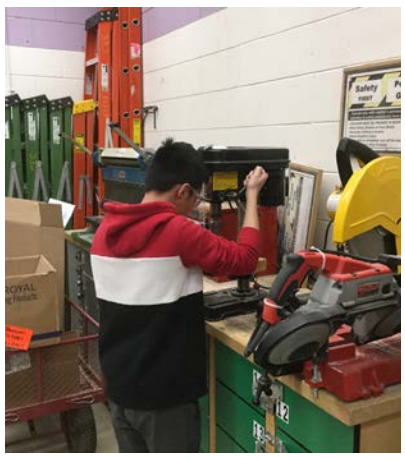
The learners were given a hand out describing the circuit board project along with the necessary steps to complete it. They started by making a circuit board from a printed circuit diagram. They itched their boards and drilled the necessary holes for all of their solid state deices to fit into. Once their boards were ready they were given all of the solid state parts to soldered onto their circuit boards. If their project did not work they had to use the multi-meter to troubleshoot their project. We had a 90% success rate of the projects working the first time. The other 10% had to troubleshoot their projects.

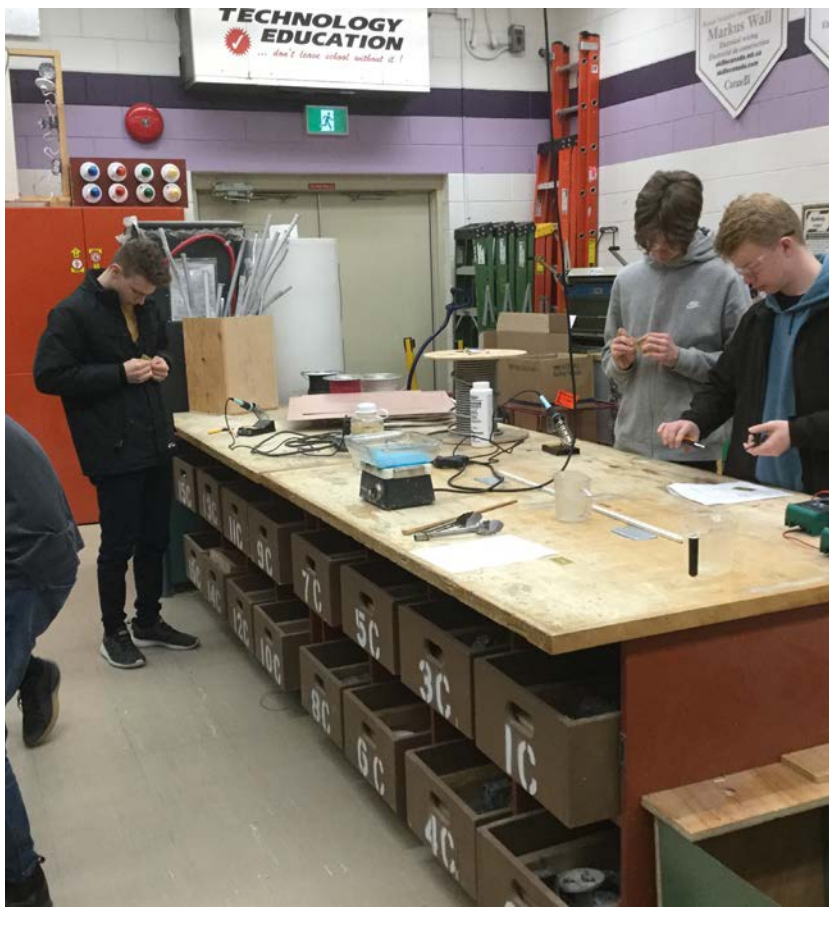
ESSENTIAL QUESTION

Some of the essential questions I wanted the learners to be able to answer after doing this project were: If they could name all of the solid state devices they used to do this project. What is the purpose of each device in the circuit. Did this project give them a better appreciation of the electronics they use everyday. How would they troubleshoot their project if it didn't work.

TEACHER REFLECTION

The learners were very engaged when working on this project. They seen the relevance in making the circuit board as they use electronics devices everyday. What was a bit surprising to me was the fact that did not give up on their project even if it did not work the first time. They followed the necessary troubleshooting procedures to try to make their project work. The quote that jumps out at me from one of my learners is "do we have to stop for lunch, I am having fun doing this".





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Art

PERIOD 7

Ryan Todd Loeppky

EXPLORING THE ARTS AND CULTURAL SCENE IN WINNIPEG

DESCRIPTION

Grade 11 art students were given a chance to experience two very different art environments on our trip to Winnipeg. We started off the day visiting Martha Street Studio where students were given a tour of the studio spaces where artists rent space and where classes are provided for free for 15-25 year olds. Our visit included seeing their letterpress, lithography press, etching press, silkscreen and digital art studio plus the art gallery. After our visit, we took a walk over to the Urban Shaman Contemporary Art Gallery where we got to see the works of local artist Kris Snowbird and international artist Torry Mendoza. The Urban Shaman gave students a chance to see how they are a leader in providing gallery space for contemporary Indigenous artists to show their work.

ESSENTIAL QUESTION

Students were given a chance to ask questions and discuss the art with the organizers/gallery directors. The Martha Street Studio and Urban Shaman experiences touched on many of the visual art outcomes, but most notably in “connecting” and “responding” areas of the art curriculum.

TEACHER REFLECTION

The students were awesome and saw a small but significant portion of the thriving arts culture in Winnipeg and experienced environments that fall outside of the stereotypical gallery scene. The students were shown how important government and private funding are to the arts community and the amazing opportunities they provide for young people. Along with seeing how Martha Street Studio provides working space for artists, the Urban Shaman gave students a chance to see how they are a leader in providing gallery space for contemporary Indigenous artists to show their work. The students were able to experience video works by Torry Mendoza that challenged their thinking about “appropriating the appropriated” . The day went really well!!!

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 physical education
PERIOD 4
Gregory Loeppky

SITTING BASKETBALL

DESCRIPTION

Wheelchair basketball was one of three sessions our class took part of during innovation day. The students were given a brief explanation of the rules. They took part in relays to develop some mobility skills. The students practiced dribbling, passing, and shooting from their chairs. The class was divided into teams and they played basketball for remainder of the session. We were uncertain what to expect from this experience as this was the first time Manitoba Wheelchair Sports Association has visited our school. The students and teachers had a blast!

ESSENTIAL QUESTION

The purpose of the day was to do something innovative. The students experienced a sport that they have not yet been exposed to at our school. Wheelchair basketball is an inclusive sport and is open to all participants including those without a disability. We are all about inclusion! Movement is a physical education outcome. Wheelchair basketball was a new movement experience.

TEACHER REFLECTION

Wheelchair basketball was my favourite innovation day activity and I know the students felt the same. Students continued to play during their lunch hour. The chairs were left at the school and we were able to use them throughout the week. The students continued to play wheelchair basketball in P.E. classes. I had several grade 12 students comment that this was the best thing we had done all year! Who wouldn't enjoy watching Jamie Peters get thrown from his chair while pursuing a ball! Total hit! This was truly a team building experience.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Jazz Band
PERIOD 4
Mark Loewen

HIP HOP DANCE

DESCRIPTION

For our morning Hip Hop Dance lesson, we invited dance instructor Genie, who worked us hard with dance moves from throughout the history of the Hip Hop movement. We danced individually, in groups, for eachother, and against eachother. Loads of fun!

ESSENTIAL QUESTION

Music and dance are, in many ways and in many cultures, inseparable. If you have music, than you also have dance and are expected to dance. In order to feel music deeply and with conviction, you must move to it rather than just be a spectator of it. Dance is the natural physical embodiment of music and our bodies' natural reaction to it. So, we danced.

TEACHER REFLECTION

So much fun! Our instructor was brilliant and engaging and the students participated eagerly. We worked hard, moving and sweating to familiar beats, all the while establishing a community connection that is invaluable to our department.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Science
PERIOD 6
Jireh Emmanuel Martiniano

THE EGG DROP

DESCRIPTION

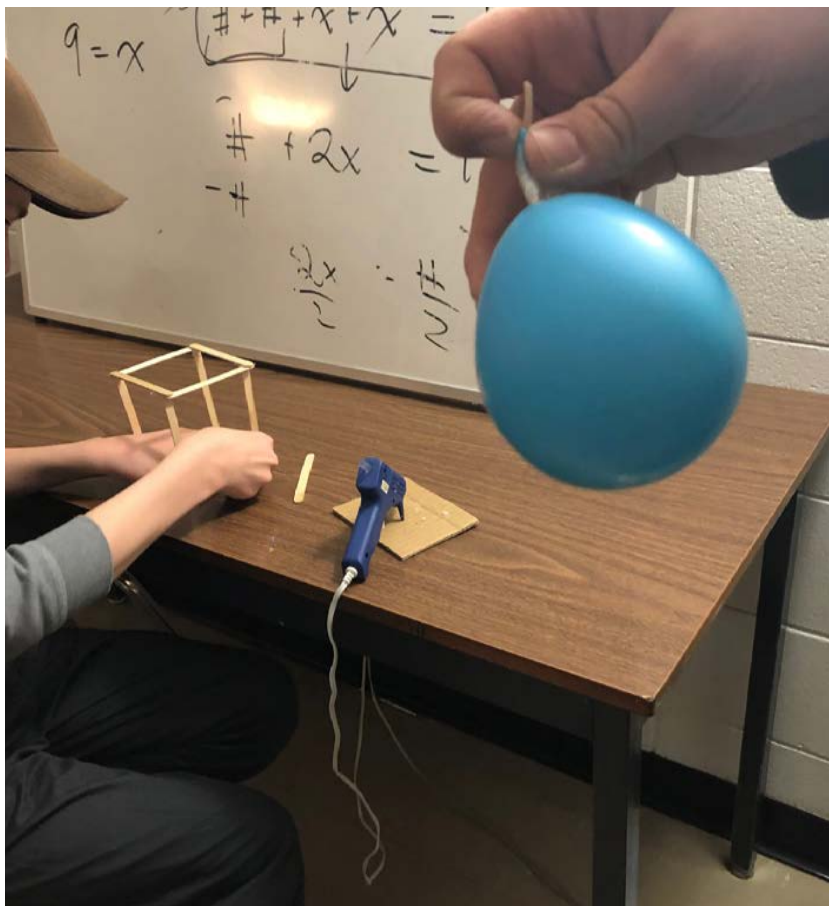
During this class students were given two egg drop challenges. For the morning, students worked in groups of 2-3 designing and creating protective structures around an egg that would prevent the egg from breaking when dropped from approximately 540 cm. Then in the afternoon, students designed and created structures that would catch an egg from 540 cm and protect it from breaking.

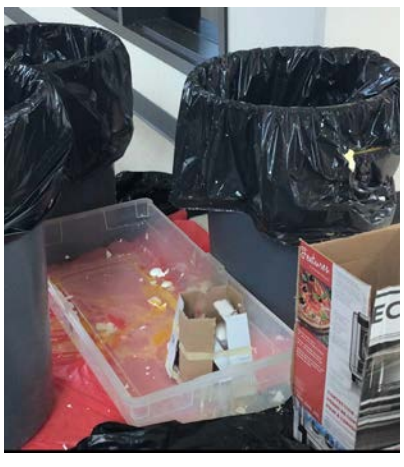
ESSENTIAL QUESTION

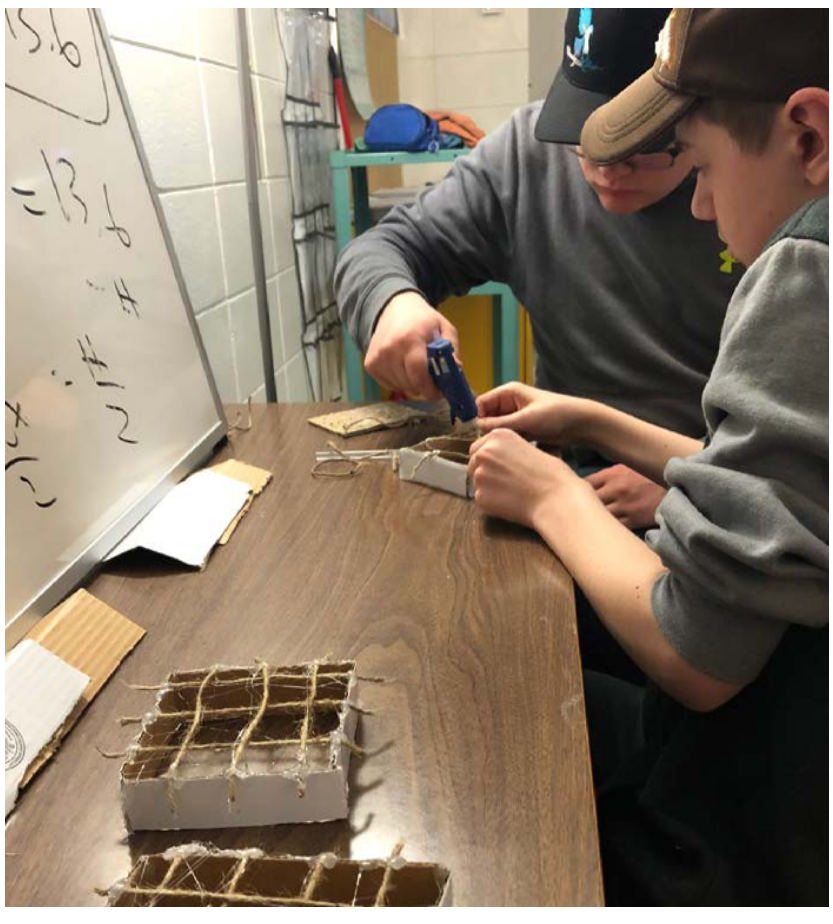
The egg drop activity highlights a few of Newton's laws of motion, which we talked about earlier this week. Doing this activity provided students with many opportunities to grow in a number of C's including collaboration, creativity, and critical thinking. Furthermore, one of my goals for this class was to provide a project based activity where students could create and design something.

TEACHER REFLECTION

I was pleased with how well my students worked together, showing respect for each other and being inclusive. Furthermore, I was impressed by the amount of thought groups put into designing and creating their structures. Students were determined to see their ideas become reality, persevering through challenges along the way. An example of this determination was when a student was trying to get an egg inside a balloon for about 30 minutes, constantly saying, "This egg is going to be inside this balloon." He actually succeeded through his perseverance. I was surprised by how the typically quiet students began to open up to myself and others. Next time, I probably would make a few small changes to the challenge to make it a little more difficult. Overall, it was a successful and fun day!







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Drivetrain Fundamentals

PERIOD 3
Grant May

TOUR OF AVIATION AND HIGHWAY TRANSPORT FACILITIES

DESCRIPTION

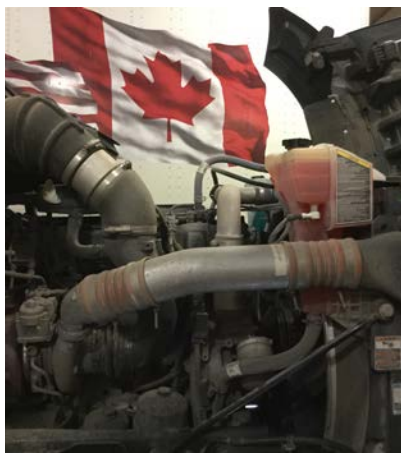
We toured a local aircraft training facility as well as a local heavy duty truck shop. Both industries are integral to Canada's transport sector and employ significant numbers of skilled workers in highly regulated environments.

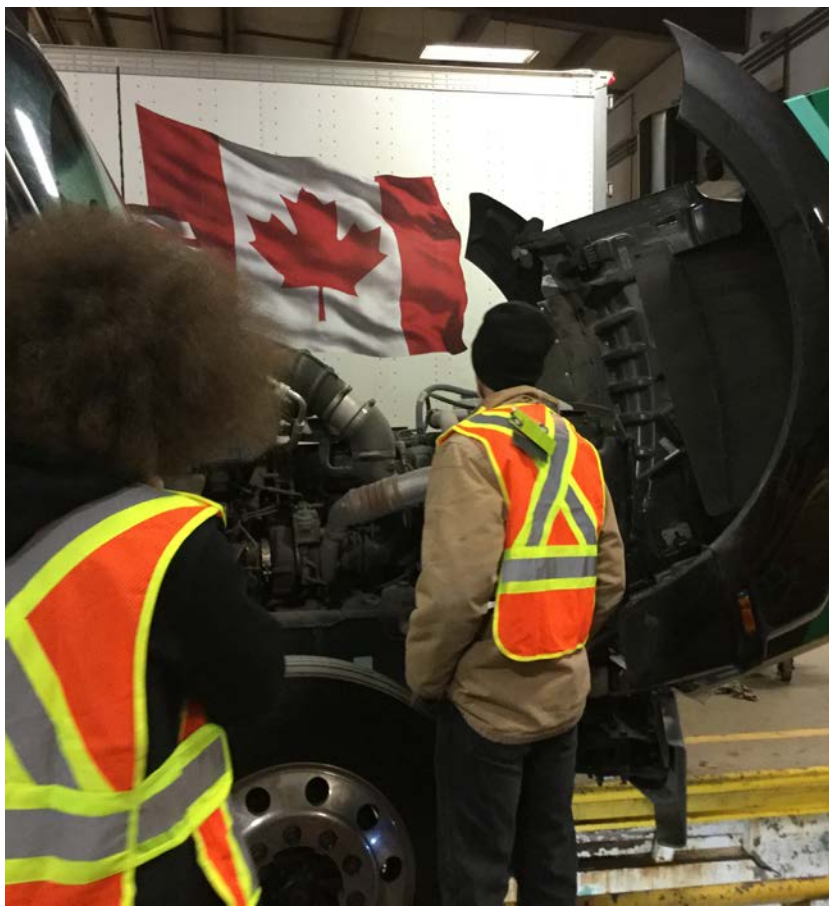
ESSENTIAL QUESTION

This tour was undertaken to help give students an overview of a number of potential careers including aircraft maintenance, parts managing, pilot, ATC, truck and trailer mechanic which are in high demand, both country-wide and locally. After a presentation they were able to interview employees on the job in these specialized fields to gain realistic perceptions of the careers.

TEACHER REFLECTION

The tours unfolded well, several students indicated that they were interested in further exploration of the potential career areas and said that without the personal tour they would have overlooked the possibilities for their futures. Students already considering these areas indicated that the tours confirmed their potential choices. Both shops were very helpful and received our sincere thanks for their participation.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Flex Ed
PERIOD 6
Brad McColm

COLLEEN WATCHORN - PAINTING

DESCRIPTION

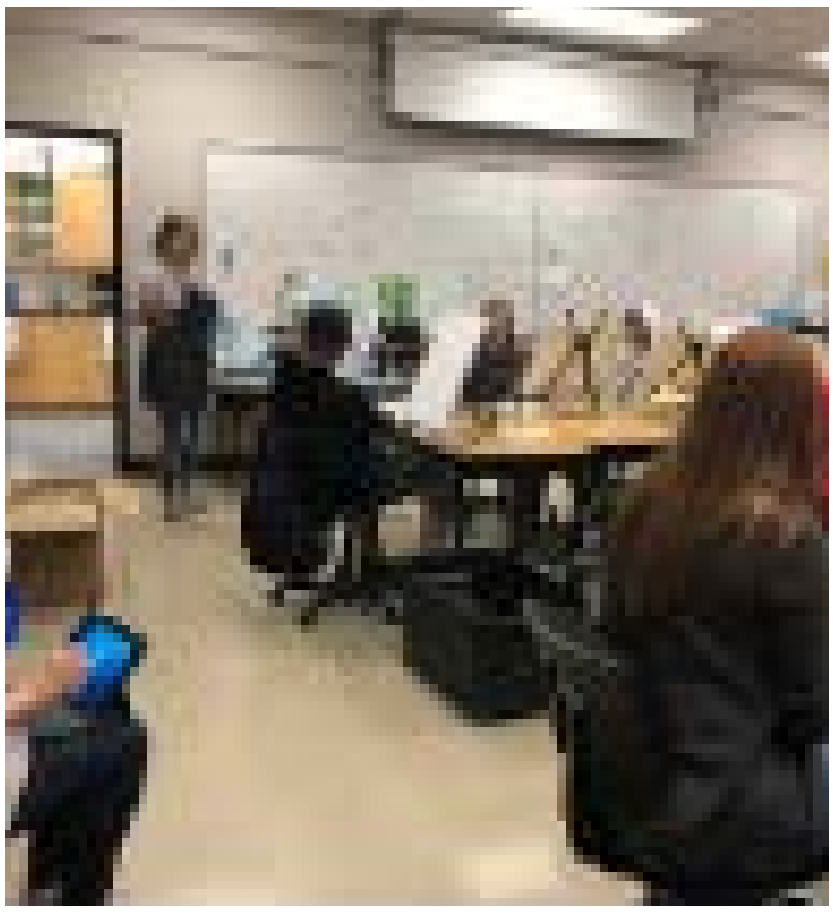
Colleen Watchorn was brought in to facilitate a painting day with the students of Flex Ed. Many of the students in Flex Ed are taking art as an elective credit so this painting project counted towards their credit. Other students in Flex Ed were encouraged to participate as well. Colleen led the students through the creative process in painting a sea scape using non traditional painting tools such as credit cards. In the afternoon the students prepared and baked their own pizzas. Once the meal was done cookie dough was cut and decorated and promptly consumed once the baking was done.

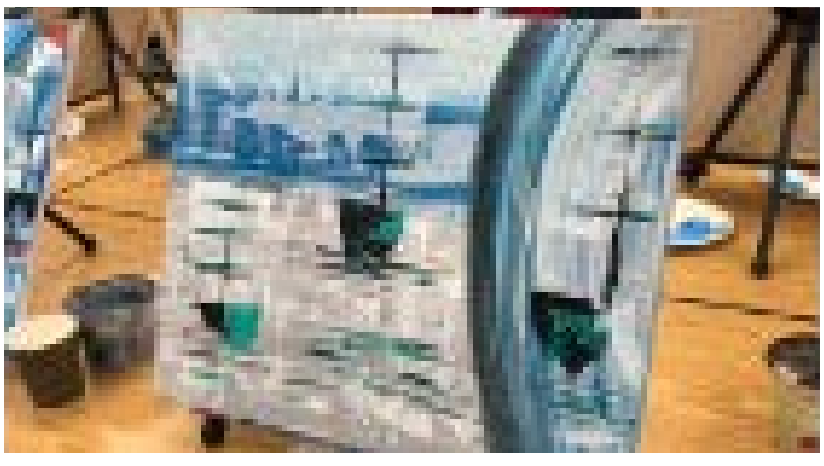
ESSENTIAL QUESTION

This day was a prime example of what we do in flex ed. We were able to meet outcomes for several different courses while at the same time building community within our program. I am very excited with the direction that Flex Ed is heading and the level of engagement we have with our students at this time.

TEACHER REFLECTION

I was very happy with the turnout for this activity and the level of engagements of the students. Colleen is an excellent facilitator and I would recommend her highly to any teacher looking for guest in their classroom.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 ELA
PERIOD 5
Shelley Jean O'Brien

ATLATL SPEAR MAKING AND THROWING

DESCRIPTION

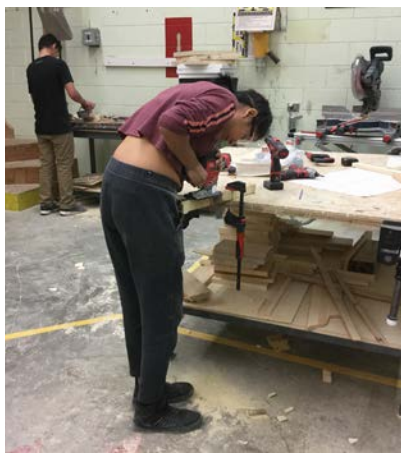
Josh Pruden kindly invited the Flex-Ed class to join in his activity. We started with an overview of the day, safety procedures and a brief video on the origins of the atlatl spear. This was followed with an explanation and demonstration on throwing techniques. Kids researched different atlatls and then sketched out a design of their choice. Once approved, off to the shop we went to build. After careful cutting, sanding and staining, the atlatls were close to completion. The final step was to make a leather grip and then head off to the field for target practice and friendly a competition.

ESSENTIAL QUESTION

This activity provided the opportunity to build community by working together with another class. We also focused on building confidence, creativity and critical thinking skills by providing a project based experience in a new setting. Finally, this activity met outcomes in many subject areas, including ELA, social studies, math, carpentry and phys-ed.

TEACHER REFLECTION

We were pleased with the number of kids who participated in this activity. Josh hit the perfect balance between direct instruction and freedom to make choices. Each section was chunked so kids could follow along easily. Josh's explanation, patience and encouragement allowed kids to feel confident to take risks. We celebrated accomplishments and learned from setbacks. Kids were engaged and proud of what they created. They used their heads to think, their hands to build and some heart to see their projects through to the end.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Special Olympics Physical Education

PERIOD 4
Sara Oswald

COOKING AND ZUMBA!

DESCRIPTION

The Special Olympics PE class challenged their culinary skills in an exciting morning of baking and cooking. The students were in charge of making their own healthy banana bread snack, and then went on to cook their own lunches! They used the new Canada Food Guide to create tasty, homemade, chicken fingers and sweet potato fries. After their bodies were all fueled up, the students took to the dance studio to try a new fitness activity: Zumba!

ESSENTIAL QUESTION

Students were working on developing an understanding of healthy eating habits, and working cooperatively in a team. Students also were exposed to new physical activity regimes that potentially could fit into their lives outside of school. Developing independence and critical thinking skills, while also being active and having fun, was a goal for this group.

TEACHER REFLECTION

The kids loved Zumba, and were excited to move their bodies in different ways. Laughter, smiles, and sweat filled the dance studio. The students had a great time cooking throughout the morning, and were surprised at how tasty healthy food can be! For next time, we may challenge the students to also be involved in the shopping process to further expand their knowledge of healthy decision making and critical thinking.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Sci 10f
PERIOD 6
Ivan Pankratz

ADAPTATIONS

DESCRIPTION

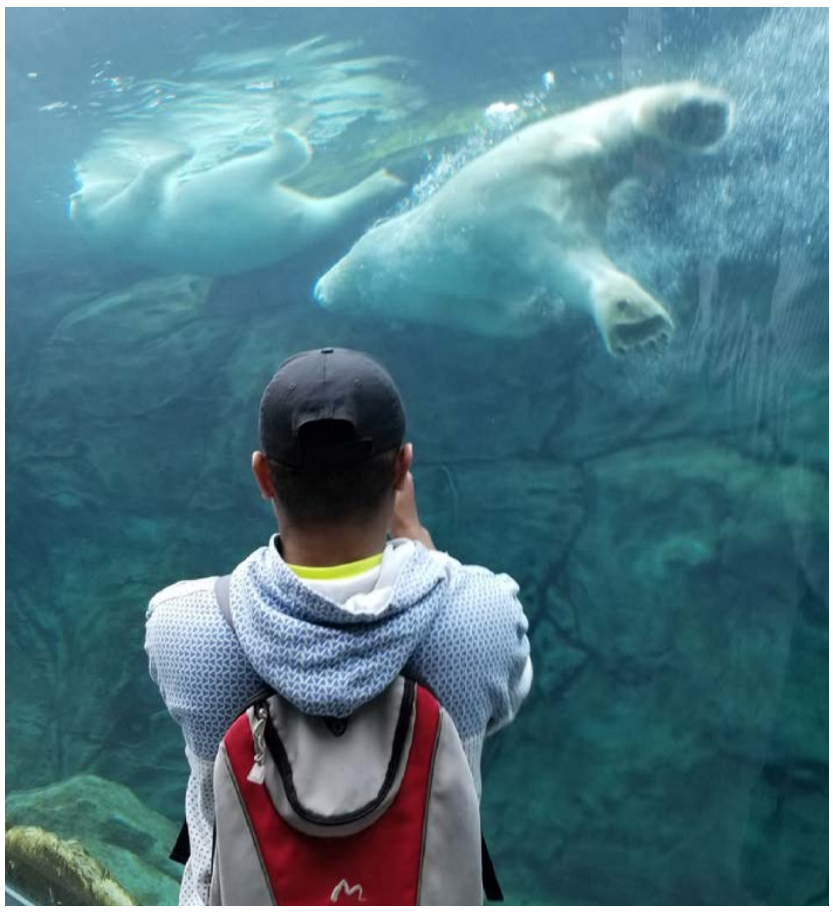
Adaptation, in biology, process by which an animal or plant species becomes fitted to its environment; it is the result of natural selection's acting upon heritable variation. Even the simpler organisms must be adapted in a great variety of ways: in their structure, physiology, and genetics, in their locomotion or dispersal, in their means of defense and attack, in their reproduction and development, and in other respects. (Encyclopedia Britannica) My period 6 grade 9 science class visited the zoo to learn about biological adaptations that have allowed different species to thrive in the competitive and harsh environment of the arctic.

ESSENTIAL QUESTION

Apart from the obvious adaptations to help animals survive the cold of the arctic we learned about mating behavior and rituals designed to maintain populations at sustainable levels. This fits in with the outcomes for grade 9 biology.

TEACHER REFLECTION

We were lucky to have good weather. No rain and not too hot. The polar bears and seals did not disappoint putting on a semi-synchronized swimming display. Great instruction from the zoo staff. We learned a lot about the way the zoo strategically breeds their animals in order to ensure the best chances for success. The baby gibbon monkey was a bonus!



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Personal Finance

PERIOD 2

Michael Payment

DOING LIFE

DESCRIPTION

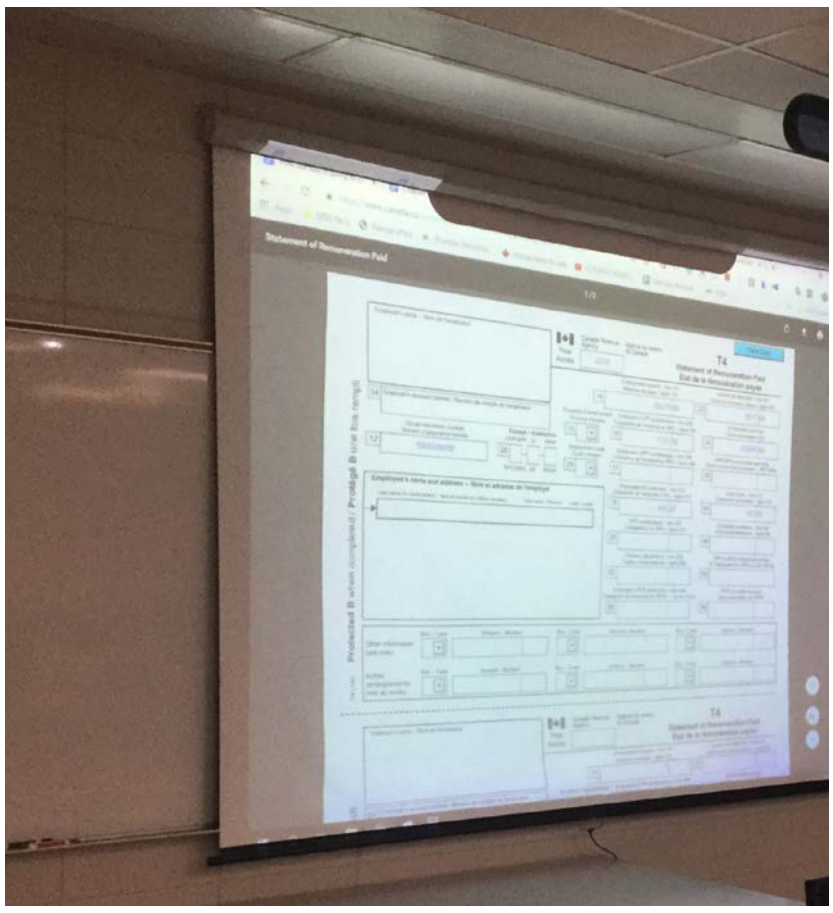
In personal finance students were learning how to complete taxes by using a paper copy then seeing how easy it is to use an online program. By doing their own taxes they could save a lot of $$ and use it for retirement or for life events. After we completed our taxes some students played the game of life and others played an investment game called Stax. Both games allowed students to experience life events.

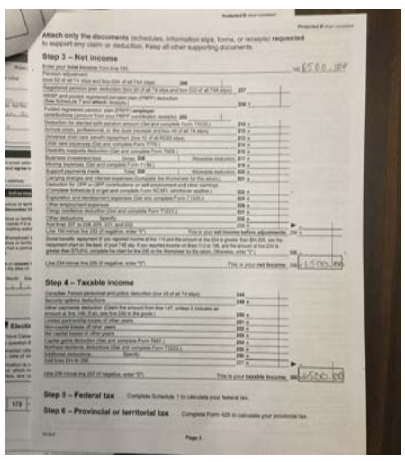
ESSENTIAL QUESTION

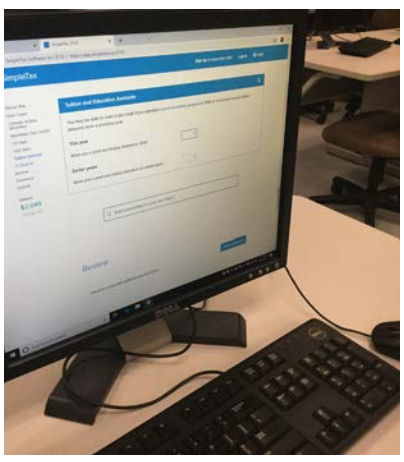
Learning to do taxes and investing allow students to experience life events without them having serious effects.

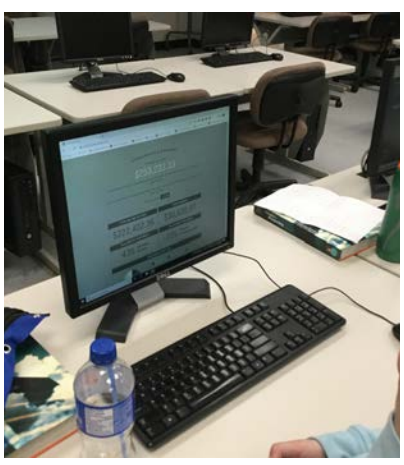
TEACHER REFLECTION

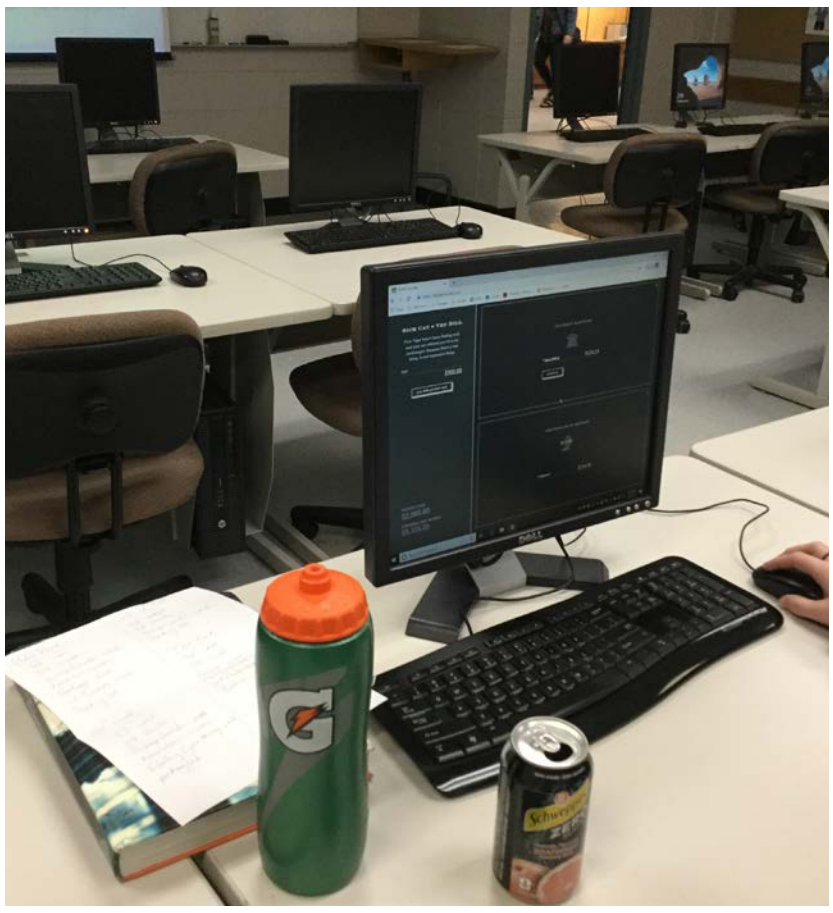
Students were happy to play the Stax game and were happy to compete against each other.











STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 PE
PERIOD 5
Lawney Penner

WHEELCHAIR BASKETBALL

DESCRIPTION

In PE, we had the day broken up into 3 sessions. One of the sessions was wheelchair basketball. We use innovation week to try and expose our students to new experiences and new ways of being active. Our only expectation was that every student give wheelchair basketball a try and give their best effort.

ESSENTIAL QUESTION

Through wheelchair basketball we were exploring collaborating and communication from the deeper learning model. Wheelchair basketball levels the playing field for all the students in PE class because you can't rely on individual skills as much to dominate the play or score a basket. You must rely on your teammates to move the ball down the floor through both verbal and non-verbal communication.

TEACHER REFLECTION

What I loved most about wheelchair basketball was the percentage of students who seemed to genuinely love playing. I believe that because the playing field was leveled, students who sometimes feel intimidated or inferior playing mainstream sports, felt more confident and comfortable playing a game where there were no one was dominating. It was a good reminder for me as a PE teacher to try and find ways to even the playing field in the mainstream games we play throughout the year.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Business Innovations - Grade 9

PERIOD 6
Esther Penner

BRANDING

DESCRIPTION

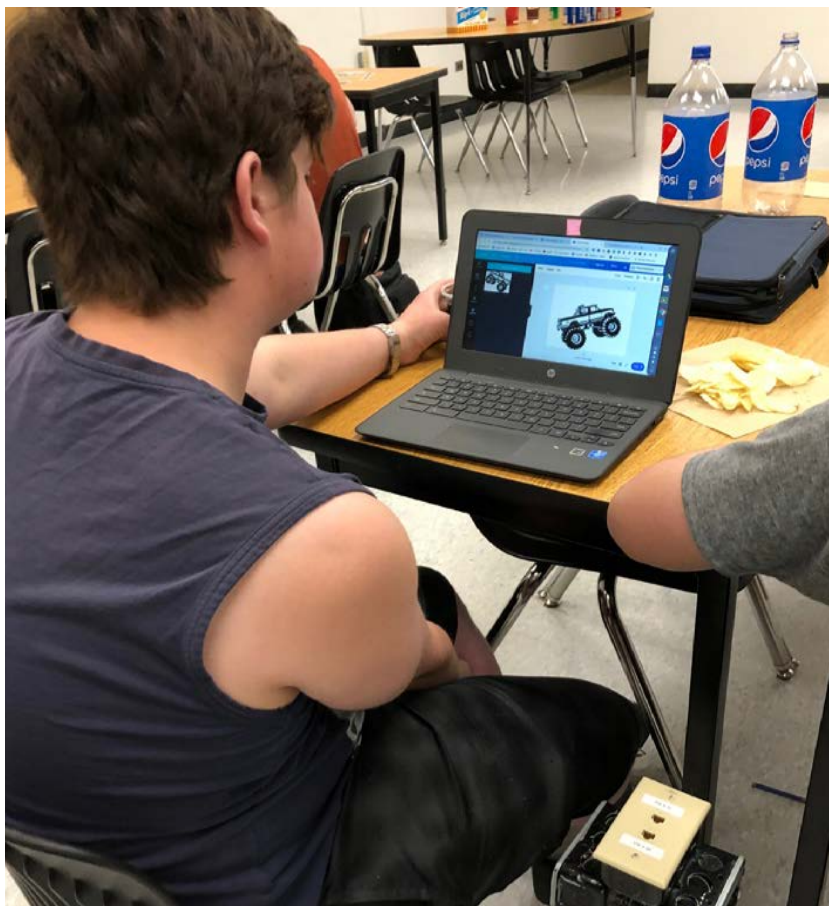
Students spent the day working on Branding. They started their day by recognizes brand in our day to day lives. After a discussion about a brand is created through the reputation of the business and their customer service and quality. Students were asked to recognize some of the marketing tactics that are used to commit brands to our memories; colours, font use, jingles, slogans, and taglines. We ended the morning with a blind taste test to determine if we have fallen victim to marketers ploys. After a blind taste test they were asked to decide what their taste buds prefer. The afternoon consisted of using our new knowledge to develop our own brands; including logos, colours, and taglines. Each of the brands had to appeal to a specific target market while reflecting what would be sold.

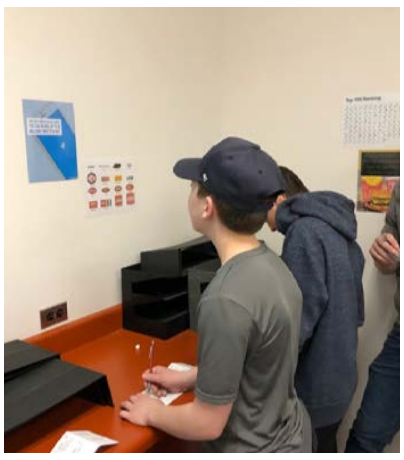
ESSENTIAL QUESTION

The point of our day evolved around understanding what it means to build a brand from a business standpoint. It also was meant to create an awareness of how marketing affects our purchasing decisions from the consumers perspective. Students were asked to think critically think about their purchasing decisions. The afternoon students were asked to use their creativity to create an effective brand.

TEACHER REFLECTION

I was surprised at how quickly students could recognize the fast food brands and sing their jingles. It was interesting to note that many brands for electronics and chocolate bars, students could recognize the logo but could not indicate the jingle or tagline. I think the students surprised themselves with the blind taste tests. Most of the students had indicated that they preferred Coke to Pepsi but once the blind taste test was completed most student preferred Pepsi. They themselves noted that Coca-Cola has done a great job of marketing their products. The class really enjoyed designing their own logos for their shirts. This was the difficult part of our day. Many students started off with very complex images or logos and after discussions; they became much more simplified.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Gr. 11/12 vocal jazz
PERIOD 2
Kristel Peters

VOICE/BODY EXPLORATION DAY

DESCRIPTION

We love to push our students in the arts/music department. The aim is to create risk-takers. With that in mind we decided to bring in outside clinicians to push some boundaries and explore our bodies and voices. We used Latin dance and beat-boxing/vocal percussion to push our risk-taking. The students stepped up. The morning was Latin dance with instructor Jedi (may the force be with you). The afternoon was with Ian. He worked on our beat boxing/vocal percussion skills. He took us to a new level of giggles and working to be comfortable trying new things and potentially being “silly” for the end result of beat boxing. He showed us many ideas of using fricatives and plosives (voiced and unvoiced) so we can manipulate them to work in a song. It was a day of community risk-taking.

ESSENTIAL QUESTION

We combined with the band/vocal jazz to create community together. We took music to the next level and put it in our bodies with dance. We experienced a new style/form/ culture through Latin dance. The afternoon we split our band/vocal jazz students to work on vocal risk taking. This day was cross-curricular working together physically, team building/community and striving to “perform” as a team.

TEACHER REFLECTION

What a fabulous day. The beat boxing instructor had us working outside our boxes. Unfortunately, I can’t put video up here. It was impressive how he used games to put them at ease and they opened up and took risks. The morning dance session was outside the box for many of our students. He was fun, energetic and had them eating out of his hands. They loved the challenge and enjoyed the sweat. As teachers we saw our students collaborate, work together as a community to create something new. We combined band and vocal jazz to work together in different grades. We even had a brother and sister dance off. It was fantastic.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Physical Education

PERIOD 5

Jamie Peters

WHEEL CHAIR BASKETBALL & TABATA WORKOUT

DESCRIPTION

Students rotated between 3 sessions for the day. 1. Wheel Chair Basketball - Students had the opportunity to learn how to play wheel chair basketball. They started with drills and skills to learn how to drive and control the chair. Progressed into using a basketball to dribble and shoot. Finally they had the chance to play some games 2. Extreme Workout - We did a 12 station Tabata workout using Heart Rate Monitors to see what target range the students were in during their activity. 3. Coping Skills & Stress Management Presentation HSD Social Workers Curtis Kulpa & Shauna Doerksen talked about Engaging students in discussions around topics including Self-Awareness, Problem-Solving, Interpersonal skills and coping strategies that can be helpful for managing stress.

ESSENTIAL QUESTION

We were challenging students on their understanding of exercise and fitness and how it relates to their heart rate. We talked about “working hard”, what that looks like, and what does it mean to be fit in relation to their heart rate and work load.

TEACHER REFLECTION

Wheel chair basketball was a hit. It was something that all the students started at the same level. No prior experience and they just had a lot of fun with it. The challenge was that we only had 10 chairs so we had to rotate between our big class sizes.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Industrial Arts

PERIOD 5

Joshua David Pruden

ALTATL'S

DESCRIPTION

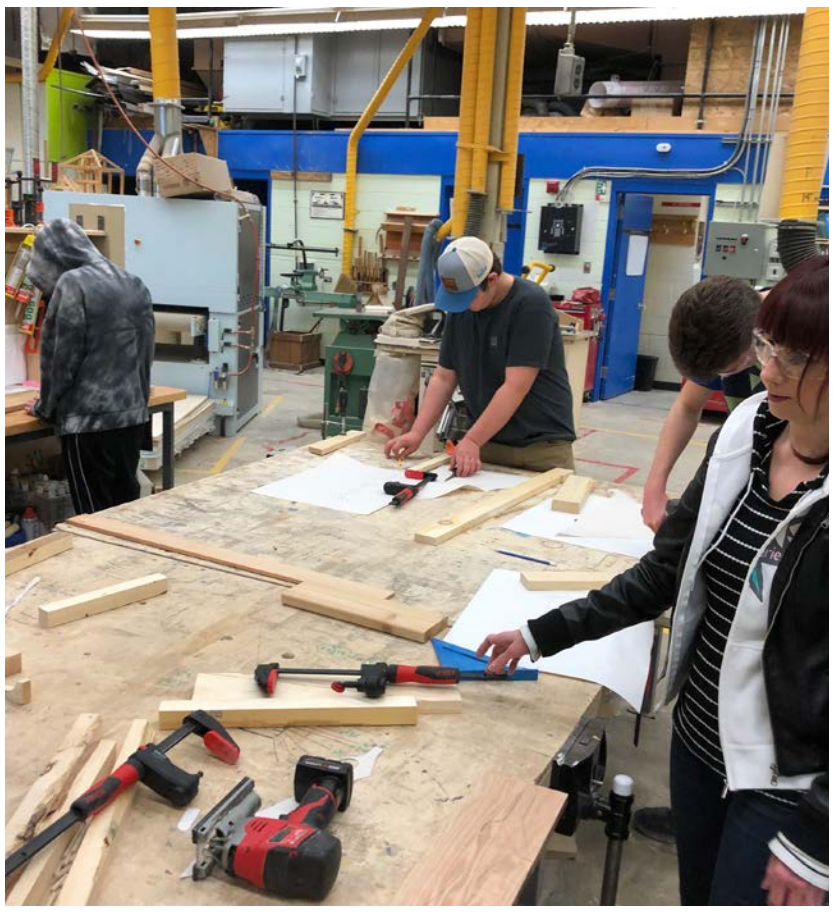
Students learned about ancient technologies Indigenous cultures used to hunt and fish. We came to learn that every culture around the world all had one similarity and it was the Altatl and use the of leverage to throw a spear. Students research and designed their own Altatls in the classroom before moving into the shop to build and perfect their design. In the afternoon we went out into the soccer field and did some target practice!

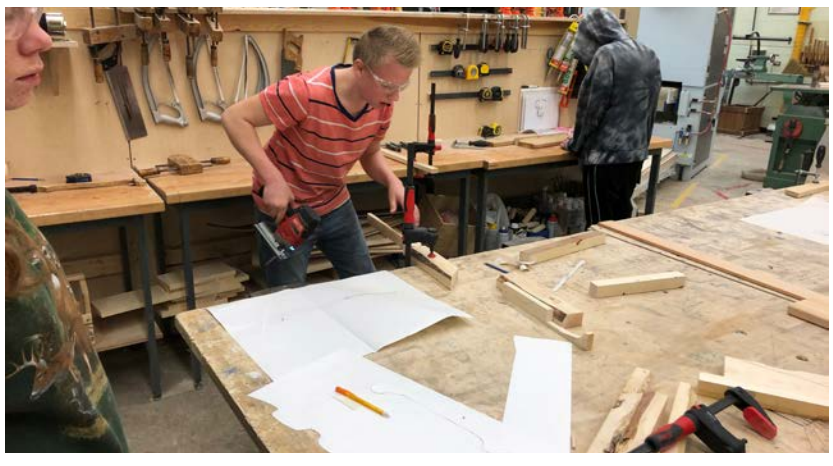
ESSENTIAL QUESTION

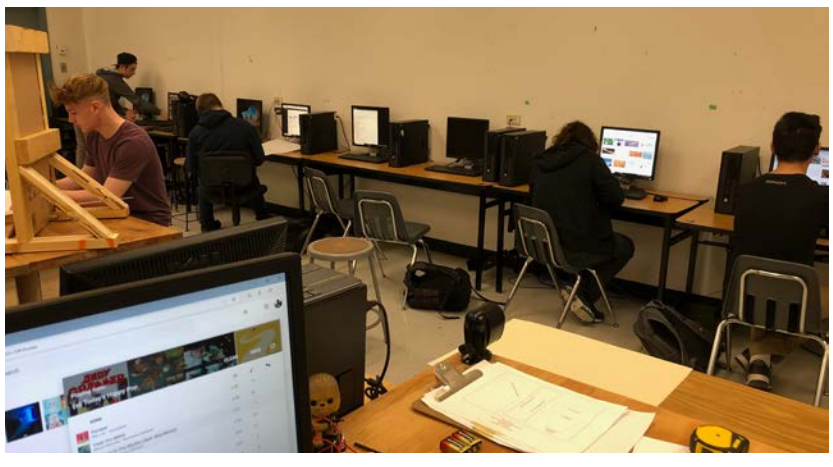
The main curricular goals for the day were to get students accustomed to the design process, taking a rough idea, developing a sketch and transforming it into a working product. Each student took the concept of leverage and put their own flair on their design. We invited Flex Ed into our class and shop to help garner a sense of a larger school community.

TEACHER REFLECTION

The day went very well, I feel like the testament to a good innovation week project is when the students ask if they can stay later after class to keep working or trying out their Altalt's. Students were engaged, helping each other and excited to see their designs culminate into a finished working product. The challenge was having 40+ students in a facility but with the amount of adults we had it worked out quite well. The wind was a factor outside this year which did affect the accuracy of our throws. One of the proud teacher moments were how my students welcomed other students into their space and how willing they were to help other students they weren't familiar with in the facilities.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

PHE 40F Gr. 12 Physical Education

PERIOD 4

Stephen Rebizant

HEART RATE MONITORS AND HIITS / WHEELCHAIR SPORTS

DESCRIPTION

SRSS Learners were introduced or reacquainted with the use of heart rate monitors, while doing a high intensity interval workout. They then were exposed to the sport of wheelchair basketball. They ended the day with a discussion on mental health.

ESSENTIAL QUESTION

The main points of the day included; i) heart rate as an objective measurement of exercise intensity, effort, fitness, training effect and overall health ii) understanding new skills, sports, and the adaptation of physical activity/ fitness in the face of physical limitations or barriers. iii) what are the tools we can easily access or prepare for ourselves to support our mental health

TEACHER REFLECTION

Learners who were not familiar with the use of the heart rate monitors were surprised at their readings /results when their bodies were put through the paces of the high intensity interval. Our kids learned to appreciate the efforts of those with limitations (wheelchair sport) but also found the game of wheelchair basketball an exciting and engaging sport option. The SRSS social workers provided our kids with many options/supports regarding mentally healthy habits.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Advance Photography

PERIOD 2
Paul Reimer

A STUDY IN FACES AND IN BALANCE

DESCRIPTION

To begin with, each student took a studio portrait of themselves, face straight forward. We then divided our faces into left and right (that's right, we have two sides/ halves) and copied each half a second time. Then we flipped one half so that the two could be placed together, side-by-side. We did this for both the right side and left side, to see what we would look like if both sides of our faces were identical to the other half. Come to the wall upstairs to see the results. Then we drew (or rather, undrew) half of our face so that only profiles were visible. We created party scenes, restaurant scenes, lecture scenes, etc and had a lot of laughs. For the afternoon, we walked to my house, where students completed a treasure hunt with my wall mounted photos and had a pizza lunch.

ESSENTIAL QUESTION

Critical thinking, new skills, walking, building community and research were the order of the day.

TEACHER REFLECTION

It went better than I expected. My students really threw themselves into each activity, as these were brand new ideas and new skills that students could quickly pick up on and run with. I think I would do this again in a heartbeat. There was plenty of laughter throughout the day and the walk to my house was fabulous (thank heavens for good weather on that day).

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Applied Math
PERIOD 3
Curtis Rey

LOGIC EVERYDAY

DESCRIPTION

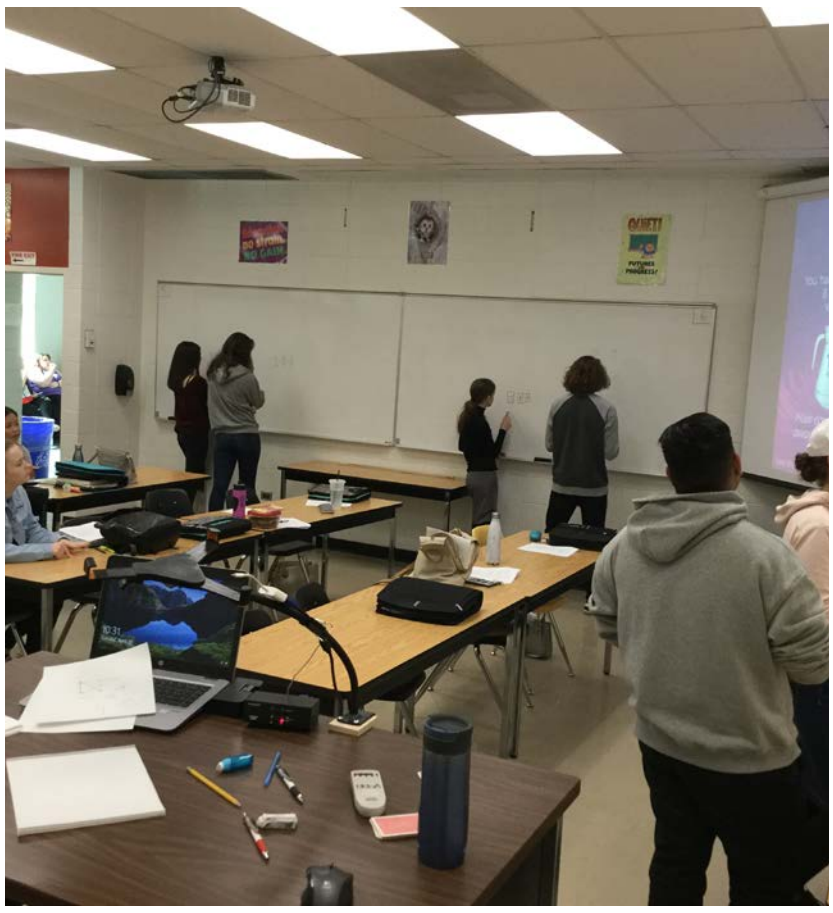
Classroom activities where students individually and in random groups, tackled deductive problem solving, logic puzzles, and random riddles.

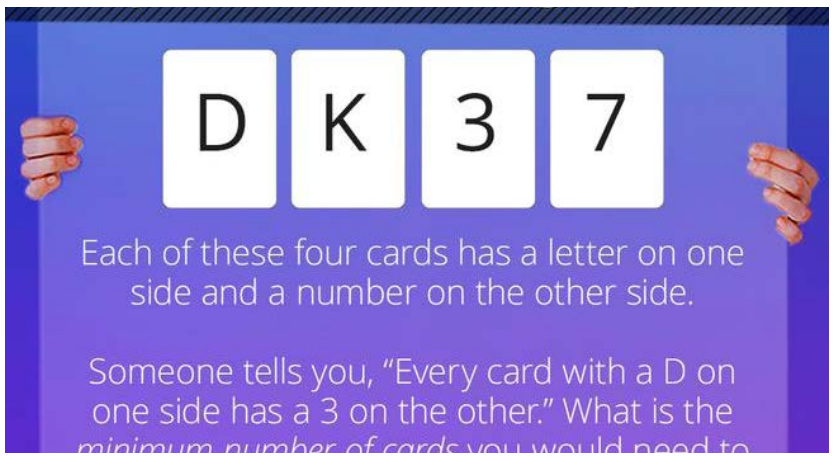
ESSENTIAL QUESTION

Thinking logically requires training the mind to consider more than just what we see right in front of us. Students were encouraged to look a little deeper, and watch out for logical fallacies that lead to false conclusions.

TEACHER REFLECTION

Students experienced a variety of situations, including working with a partner they might not normally do so in a regular class. Hopefully a few eyes were opened to possibilities always around us.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Social Studies

PERIOD 5
Neal Rohne

TOURING THE MANITOBA LEGISLATURE

DESCRIPTION

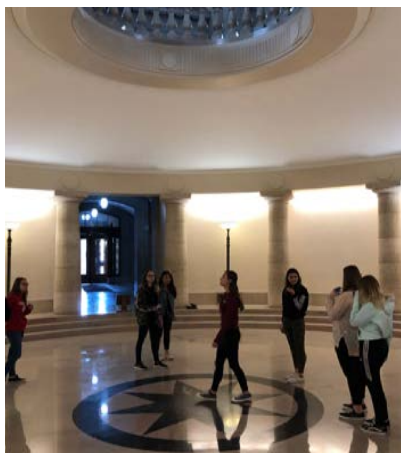
Our day was split up into two sections: a guided tour of the Manitoba Legislature and a classroom activity that explained what happens in the legislative chamber and how a bill becomes a law.

ESSENTIAL QUESTION

The main point of the day was to make the business of government more tangible and real for the students. This trip came at the end of our “Democracy and Governance” unit so much of what we discussed and viewed about the goings-on of government helped reinforce ideas we had explored in class already.

TEACHER REFLECTION

I was impressed with the questions many students asked during the tour. They were really interested in the architecture of the building, the stories about the quirky history of the Manitoba Legislature, and the traditions of the legislative chamber. They demonstrated this knowledge at the end of the classroom portion of our tour when we played a game of Family Feud. This is a competitive class, so they really dove into the game and tried their best to answer questions about what they learned throughout the day. I was hoping we would be able to meet our local MLA and Education Minister extraordinaire, Kelvin Goertzen, but, alas, he wasn’t there. We got a tour of his office and we touched all of his stuff, though. Overall, it was a great way to learn about the provincial government!



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Geography
PERIOD 5
Stephanie Sawatsky

THE FORKS GEOGRAPHY/HISTORICAL WALKING TOUR

DESCRIPTION

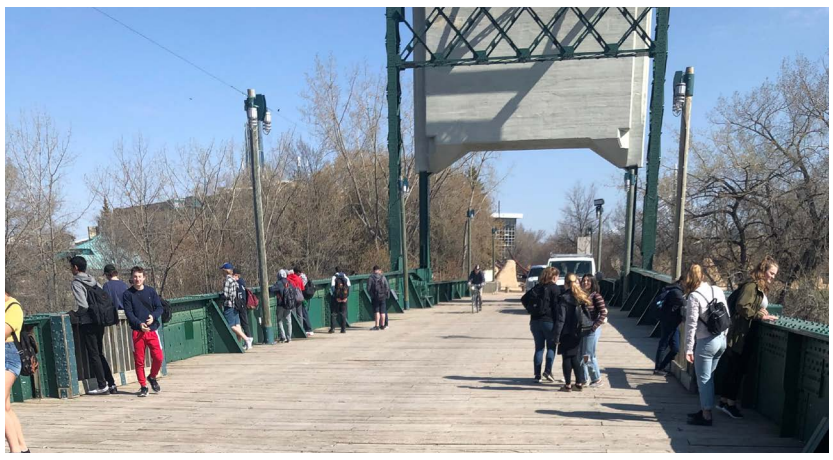
As a class we spent the day learning about The Forks. I guided the class on a walking tour throughout buildings as well as the grounds explaining the geographical and historical relevance of the site itself. We discussed/learnt about urbanization of Winnipeg and surrounding areas, the major floods in Manitoba, vegetation, geothermal heating and much more! Students had some time at the end of the tour to enjoy the grounds with their new found knowledge.

ESSENTIAL QUESTION

Within this field trip we were working on one of the six C's - Citizenship as well as covering curricular outcomes. Students were working on Citizenship through the first two dimensions; a global perspective as well as understanding of diverse values and worldviews. Students focused on specific GLO's such as Environmental and Economic Issues and Location and Function of Urban Places.

TEACHER REFLECTION

It was great to have the opportunity to give context to such a well known historical site in Winnipeg. Many students reflected on the notion that they have been to The Forks many time but didn't actually know the historical/ geographical significance behind many of the structures and buildings there. I asked the students to reflect on what they learnt from this day and list one thing they didn't know before. Some reflections from students: "I learnt that the forks conserve a lot of Canadian and Manitoban history, like some parts of buildings and how they show how high the flood waters were." "Something I learnt was that the market place used to be horse stables."



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Geography 20F
PERIOD 3
Matthew Schmidt

A DAY AT THE FARM

DESCRIPTION

We arrived at the Farm and Food Discovery Center at 10:00 am after a short bus ride. Once there, we had the opportunity to make pizzas from scratch using local ingredients before taking a tour of the discovery centre. Kids spent about an hour preparing/kneading pizza dough before being part of an information session/tour where students were educated on the most prominent crops and livestock in Manitoba. After the session students went back to the kitchen to construct their pizzas that they would eat for lunch. After lunch, the students toured the dairy barn and returned for another information session on the role of pesticides/herbicides and the strict regulations Canada has to ensure they do not affect our health.

ESSENTIAL QUESTION

Where does our food come from? What are the effects of pesticides/herbicides on our health? How will we feed 9 billion people on Earth by 2050?

TEACHER REFLECTION

Overall, the day went very well. The students enjoyed making and eating their pizzas as well as touring the various areas of the the Farm and Food Discovery Center. All of them enjoyed watching the piglets with their mothers the most and seemed to learn a lot about where we get our food.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Hairstyling

PERIOD 7
Kyla Sliva

ANYTHING BUT HAIR

DESCRIPTION

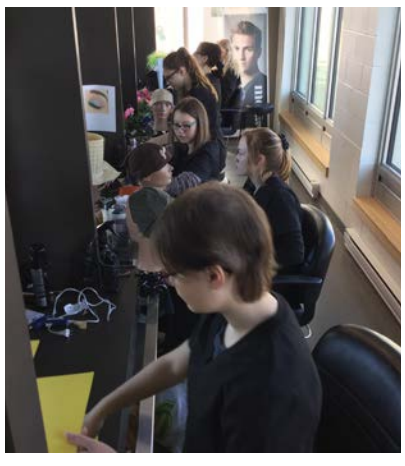
Learners created a “hairstyle” using the elements and principles of design using anything but hair. This year, they needed to create a wearable style that could be placed on a model and presented. Make up was applied to their mannequin to complete the look for the day. By doing this activity, learners will be purposefully practicing the following competencies for Deep Learning: Character, collaboration, creativity & critical thinking.

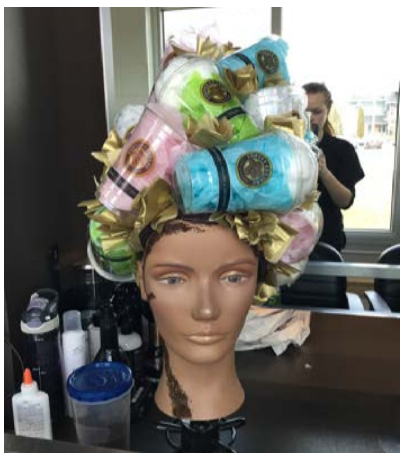
ESSENTIAL QUESTION

By doing this activity, learners purposefully practiced the following competencies for Deep Learning: Character, collaboration, creativity & critical thinking. Curricular Goals - “GLO 8 Describe & demonstrate the transferable cross-curricular knowledge & skills. SLO 8.4 Apply the knowledge and skills from the arts.” were met.

TEACHER REFLECTION

I’ve seen a lot of creative growth with my learners through this activity. Learners who had difficulties thinking creatively ended up putting their efforts into the project wholeheartedly. As hairstylists, we need to challenge ourselves and think of our work in more basic, detail and abstract ways in order to achieve client wishes. Learners realized that having an idea doesn’t necessarily always pan out the way they want. In our ever changing industry we constantly need to adapt how we see our craft and relate what we do directly to our individual clients’ hair texture, density, growth patterns, length, colour and even time constraints to complete their styles. My learners will continue to see their styles as a cohesive piece and not just a style.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

PADR20S
PERIOD 5
Naomi Stobbe

DRAMATIC HISTORICAL INTERACTION WITH GRADE 2S

DESCRIPTION

This day has been in the making for the past month. The students in this class teamed up with a class of grade 2s. Prep included a field trip to Mennonite Heritage Village to research and develop characters and a scenario, a live video chat to iron out details. My students wrote a scripted improvisational scenario to take the students on a problem solving mission set in the early 1900s. At the MHV we implemented our story. To make a long story short, the students soon learned that a house barn at a neighbouring village had burned and they would need to band together to help the family. They rotated through stations collecting materials and helping out. They learned pioneering and indigenous perspectives.

ESSENTIAL QUESTION

1. Critical thinking - Exploring indigenous perspectives and seeking to incorporate them into a predominately settler based story in our local community. 2. Community building - This was an authentic project where the students had to work together but also explore how to provide a safe and caring environment for their grade 2s. 3. Cross Curricular - Social Studies and Indigenous Perspectives.

TEACHER REFLECTION

The day was great. The students had worked hard at practicing their interactive skills with younger people. Their story arc had been well thought through and their characters developed from research. They felt prepared. Since this was round 2 (I had done the same thing with my grade 11 class the week before) I was able to prepare them for some of the issues that had arisen then. This type of experience where we do a lot of work between the 2 classes (middle years and senior years) before the innovation day is very successful. The community they develop and the investment they feel towards their partner class is huge. Also it is not just a dog and pony show that a teacher does for a day but rather a day that the students totally invest in for themselves.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Art
PERIOD 1
Jack Tate

FIGURE DRAWING

DESCRIPTION

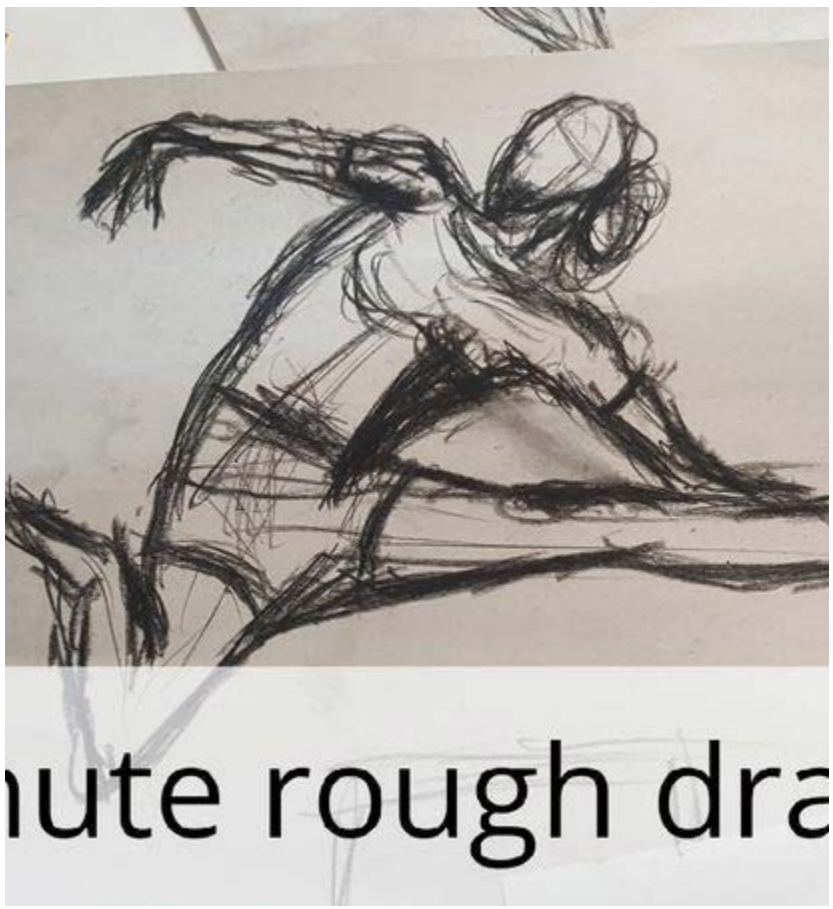
We spent the entire day trying out a few different approaches to figure or life drawing.These ranged from quick 1 minute gesture drawings using photo poses to one hour studies using live models.

ESSENTIAL QUESTION

I see drawing as an essential skill in art making and figure drawing as a way to explore most if not all of the elements that are required to become proficient at drawing and art making.

TEACHER REFLECTION

I wanted to get the students to buy into what can be a very daunting assignment and in the end I believe that most of them were finding success and enjoying what they were trying to do.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 11 Metal design

PERIOD 2

Benjamin Thibodeau

REVERSE STEERING BIKE CHALLENGE

DESCRIPTION

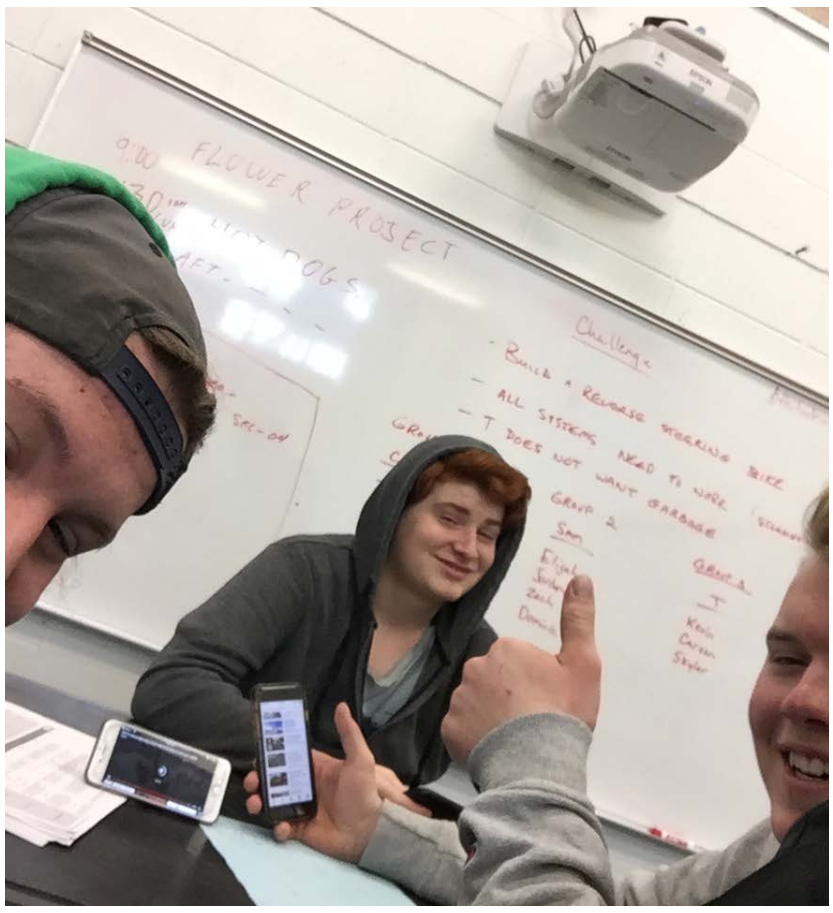
The “Backwards Brain Bicycle” intrigues me. We watched the YouTube video and it intrigued my students. I had many parts and 6 bicycles. We formed 3 groups and built...

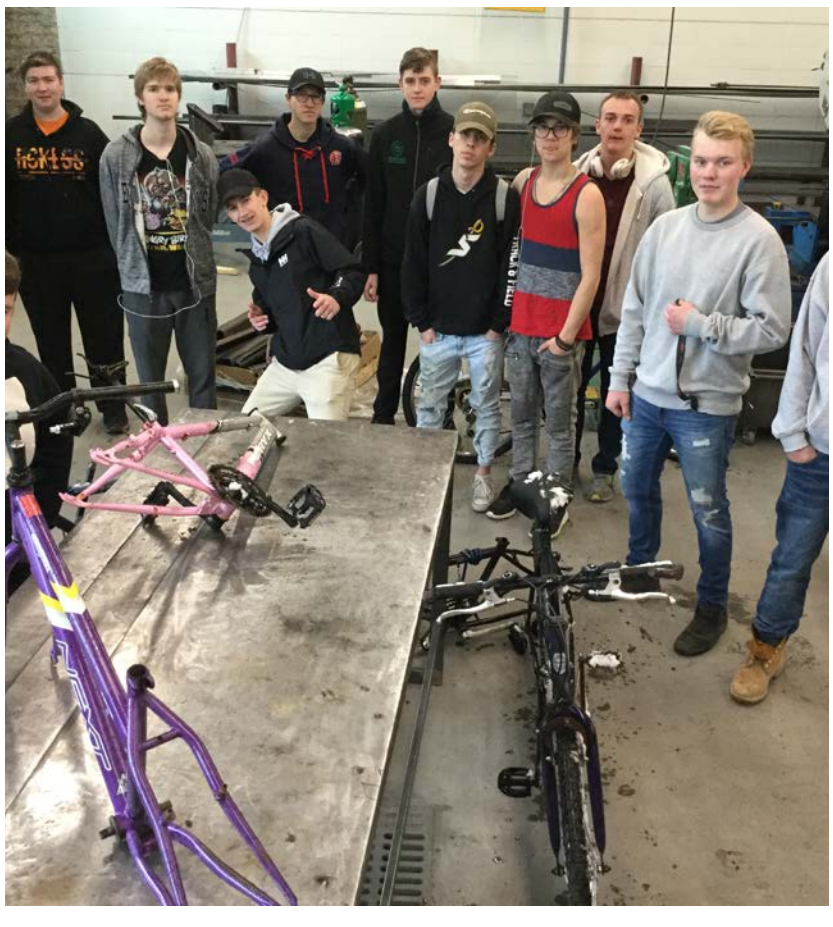
ESSENTIAL QUESTION

Each group had a leader that had days of instruction and planning to manage employability skills and reverse steering bicycle builds. Each team had members that needed to communicate to ensure effective planning and task achievement. The main question was... Are you getting smarter everyday? How easy do you think it will be to ride this bike?

TEACHER REFLECTION

The three teams responded with “We had fun working together and making the bike.” 2nd group, “We had to put more time in planning than we thought we would need to. I can’t wait to ride it” 3rd group, “We didn’t like the building part but, we had a plan.” Not easy to build or ride. I crashed and burned - laying on the ground laughing. Kevin, Jeremy and Zach rode these messed up bikes from the compound gate to the shop door and even had a race. The best part was Jon’s regular bike was almost impossible for these young men to ride after they mastered the reverse steering bicycle. We all got a little “smarter” or “backwards” and had fun doing it.





STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Physical Education

PERIOD 5
Bryan Thiessen

WHEELCHAIR BASKETBALL

DESCRIPTION

We began the day with a fitness workout with our wireless heart rate monitors. The kids were able to watch as their heart rate changed target heart rate zones as they worked out. The second session saw the kids learn to play wheelchair basketball which was a huge success! On day one of innovation week we had Sam from the Wheelchair Sport Association of Manitoba introduce the game and run the drills. For the rest of the time our physical education staff ran the sessions. We ended the day with a session with some school division social workers on mental health and stress.

ESSENTIAL QUESTION

The main focus of our day was to give students an opportunity to explore more obscure avenues of being physically active and to provide them with some tools to help manage stress. Most students will never have the chance to get in a sport specific wheelchair and experience a sport in that way, so it was a really special experience for them to play in this way.

TEACHER REFLECTION

We were unsure coming into innovation week how wheelchair basketball would be received. It ended up being one of the most widely enjoyed activities we have done. The kids were encouraged to work together as they learned how the wheelchairs operated. Being that it is difficult to maneuver and play the game selfishly, the kids learned quickly that teamwork would lead to success much quicker than selfish play. It really leveled the playing field and included people of all skills and abilities. The only challenge was that we only had ten chairs. If we were to do this again we would likely have multiple activities going on at the same time so that more kids are active. Overall it was a hit!

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Science

PERIOD 1

Samantha Paige Thiessen

ELECTRICITY LABS (AM) AND STATES OF MATTER (PM)

DESCRIPTION

In the morning, students were given a short lesson on electric circuits and were set off to compete an interactive online DC Circuit Simulation Lab. After lunch, the students came back to a totally different looking classroom in which they performed two hands-on labs called “What the heck is Oobleck?” and “The Tasty State Change Lab”. There was a ton of mess to be had. It was loud. It was awesome.

ESSENTIAL QUESTION

In the morning, I wanted to have students gain an understanding of and know the difference between series and parallel circuits, learn what Amps and Volts are, and how different circuits affect the brightness of one or multiple light bulbs. The afternoon’s purpose was partially for fun (we made ice cream) and to learn more about state change and physical characteristics of matter.

TEACHER REFLECTION

The two afternoon labs, Oobleck and Ice Cream, WERE AWESOME. I didn’t think I could get Grade 9s sold on labs that they may have done/seen before or that they thought might get too messy, but I don’t think there was one learner in my classroom who didn’t at some point say “OOOH THIS IS COOL!” or “OOOH THIS FEELS WEIRD!” One even said “This ice cream tastes so good. This was one of my best innovation days ever.” YES. I’ll take it. I had students give me feedback on what they would have changed, and the responses I got were as follows: “a few more breaks” “more time for the electricity lab” “we could hand in less things” “I want to go on a field trip”. Overall, very awesome day!

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Esthetics

PERIOD 5
Heather Toews

VERY FIRST SALON DAY

DESCRIPTION

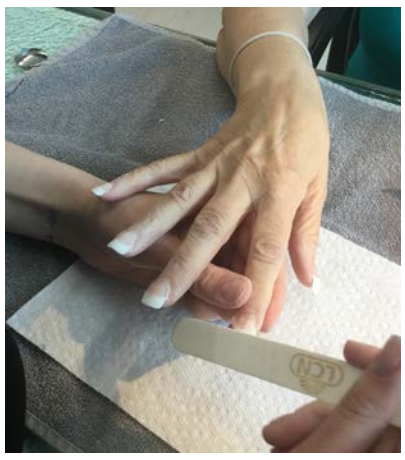
As we wrap up the first year of the Esthetics major, these grade 10 students have a fair bit of knowledge and skill under their belts. I have been thinking about a way to smooth the transition from first to second year services, and thought a full day trial run would be the way to go! The students were all fully booked with natural nail services (manicures and pedicures) as well as a full artificial application (gel nails). Keeping a salon running smoothly requires many different aspects to be considered. With each student having booked several different guests in for the day, they found themselves very busy. As we have talked about, but not really practised, client care was a front runner for things to think about.

ESSENTIAL QUESTION

Client Care, Professionalism, Time Management, Team Work, Infection Control, Skill Application are just a few of the skills required to make this day run smoothly. Students were required to think about all of these at all times! This was a brand new experience for them and the end results demonstrated evidence of many curricular outcomes we had hoped to reach this year!

TEACHER REFLECTION

I was so proud of these students! There was a ton of nervous energy as they prepared their tools and stations for their clients. They were able to demonstrate the 5 phases of service, taking the client from introductions all the way through to re-booking with confidence and professionalism. Many of the students didn't realize just how tired they would be, providing consecutive services with only a short lunch break. Providing real industry standard expectations and experience in a safe learning environment, was invaluable! There were a few times that redirection needed to happen or a simple reminder to keep conversations and body language appropriate and professional, but over all the day was a success! Quote of the day - Why can't every day be like this?!



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Entrepreneurship

PERIOD 5
Madison Tokar-Wolff

STUDENT BUSINESS VENTURES

DESCRIPTION

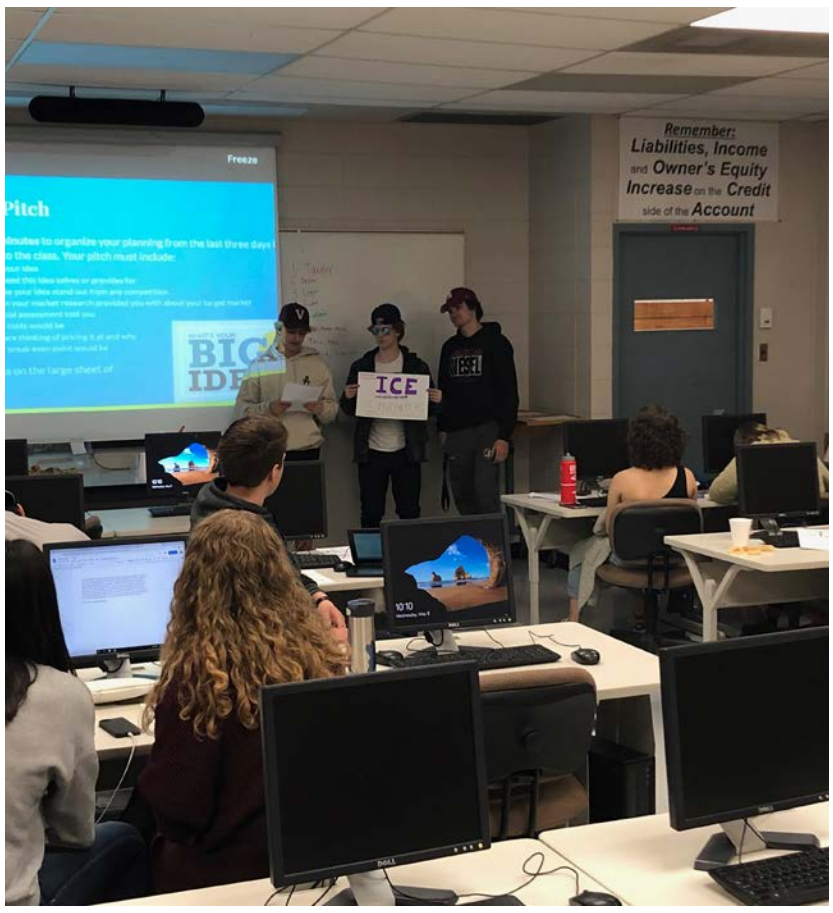
For the Entrepreneurship Innovation Day the students prepared to run their in school business ventures. The day started with students presenting an elevator pitch to the class with their idea for a business. Prior to this, they had conducted market research and financial analysis on their ideas, and this was part of their pitch. From this, the top five ideas were chosen, and groups were made. Each member in a group was assigned a role as either a director of marketing, finance, merchandising or manager. They had to complete a lean canvas, and come to me for a loan interview, where they were given a $50 initial investment for their businesses. As a class we went to Wal-Mart to purchase the supplies they needed, and they prepared everything for their ventures to begin the following week.

ESSENTIAL QUESTION

This project encompasses many outcomes from the Entrepreneurship framework. The students had to identify and evaluate a business opportunity, conduct market research, prepare financial statements, and use the marketing mix to prepare and implement a business plan in a market. Beyond the curriculum, this project encourages the growth of students creativity, collaboration & problem solving skills.

TEACHER REFLECTION

Throughout this project I have loved watching the students take so much initiative with their businesses. They have shown up early to class to get their businesses set up, they have come in during their spares to prepare their products, developed packaging and displays, and they have become competitive in earning a profit. I will not know this until after the project is complete when the students complete their reflections, but I believe this is a project where students experiences a depth of learning that they do not even realize they are experiencing until we unpack it at the end.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

ENL40S
PERIOD 5
Megan Turnley

EDGAR ALLAN POE MURDER MYSTERY

DESCRIPTION

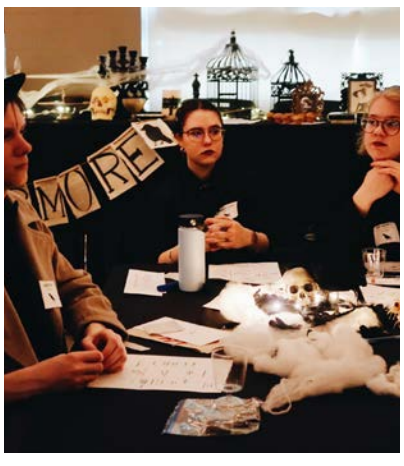
Students participated in a harrowing 'whodunnit' style mystery at Eddie Poe's old Victorian mansion. Students pieced together clues through physical evidence, a toxicology report, and conversations with others in order to accuse the killer of the crime. Students used literacy skills, improvisation, theatre techniques, and critical thinking.

ESSENTIAL QUESTION

What happens when students use imaginative play in order to engage critical thinking? In what ways do the new practices of the new curriculum work their way into rich learning experiences? How will students use community and communication to support each other?

TEACHER REFLECTION

In my opinion, there is great value in learning through imaginative play. Personally, it allowed me to become much more involved and made me want to apply critical thinking and social skills as well as literary knowledge to the game. The game, to me, was a test of my knowledge and application of these things and I think it revealed a lot about what I know and how capable I am of applying it to a situation. I also think imaginative play and fun encourage enthusiasm as well. I still remember a bunch of details from Edgar Allan Poe's life because I was able to apply them to the game, and use that information right away. I think doing that cements the information better than just writing it on a page or trying to memorize from a book. - a student



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

ENC40s
PERIOD 5
Andrew Unger

ABANDONED HANOVER

DESCRIPTION

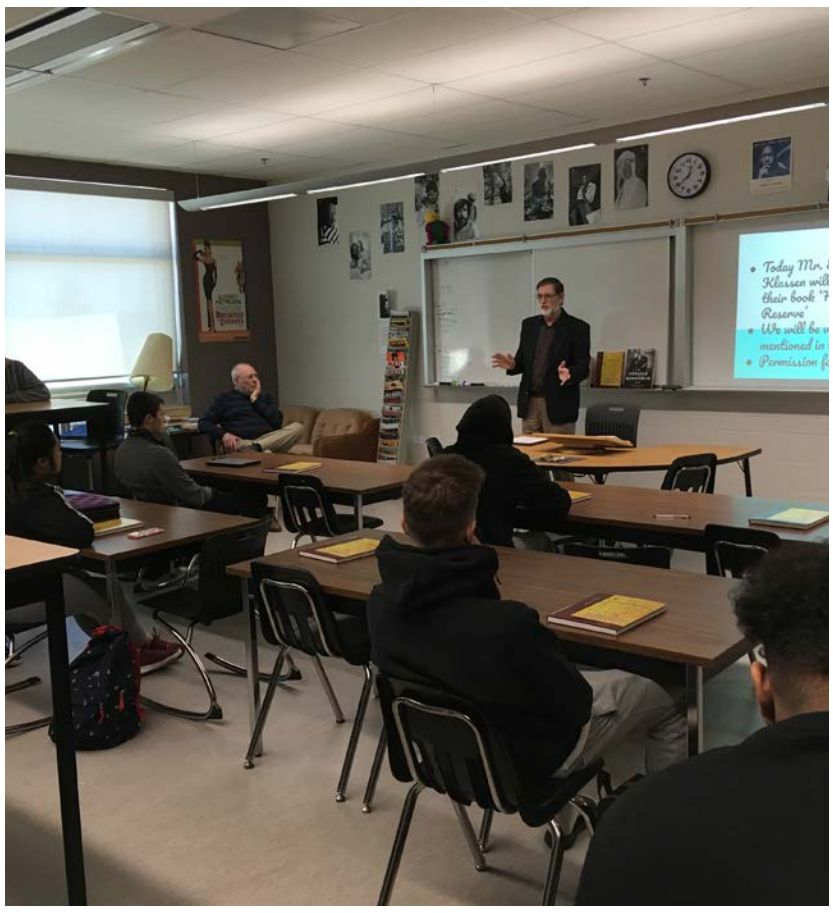
The day before our Innovation Day, I invited Mr. Ernest Braun and Dr. Glen Klassen to come speak to our class about their book, “Historical Atlas of the East Reserve.” They spoke about the importance of local history as story-telling and also about the process of researching, map-making, layout, design, and publication of their book. Then, on our Innovation Day, we did a bus tour of some of the historic sites described in the book such as the landing site near St. Agathe, the site of the original immigration sheds near Niverville, the sites of various abandoned villages and cemeteries, the historic Chortitz church (where Mr. Braun met us and opened up the church so we could look inside) and the St. Raymond one-room school house north of Giroux.

ESSENTIAL QUESTION

The purpose of the day was to get to know and appreciate the stories and history of Hanover and area. We also learned about the process of researching and designing a historic atlas.

TEACHER REFLECTION

Well, one setback was the flooding near St. Agathe, which prevented us from actually visiting the Landing Site (we just drove past) and we had a couple hick-ups with the directions, but considering we were driving around gravel roads in the “middle of nowhere” we did manage to visit quite a few sites. There is a lot more history in our area that most people realize. You just have to look for it...it helps to have a good historic atlas.



STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Collision Repair and Refinishing
PERIOD 5
Jessy Unrau

REPAIRING AND REFINISHING VEHICLES

DESCRIPTION

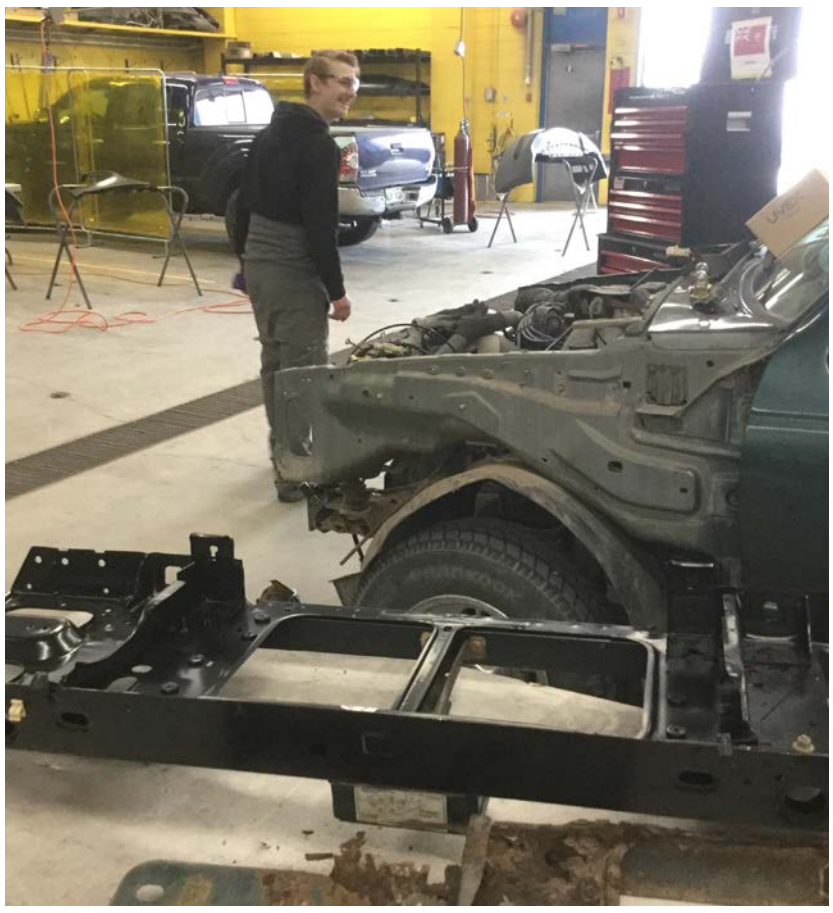
Our day was set out to duplicate a regular day in a body shop. Repairing and Refinishing vehicles safely. Organizing the day so they things could get done in a timely manor. Using tools and cleaning them up. Also practicing techniques they learned previously to get better and faster.

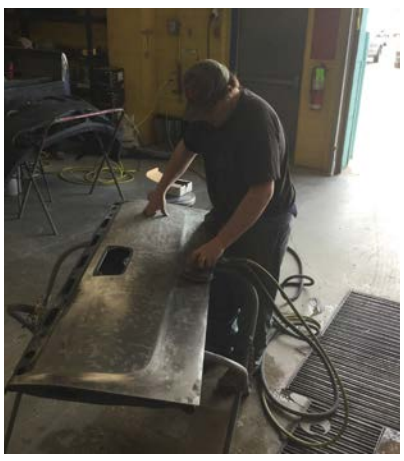
ESSENTIAL QUESTION

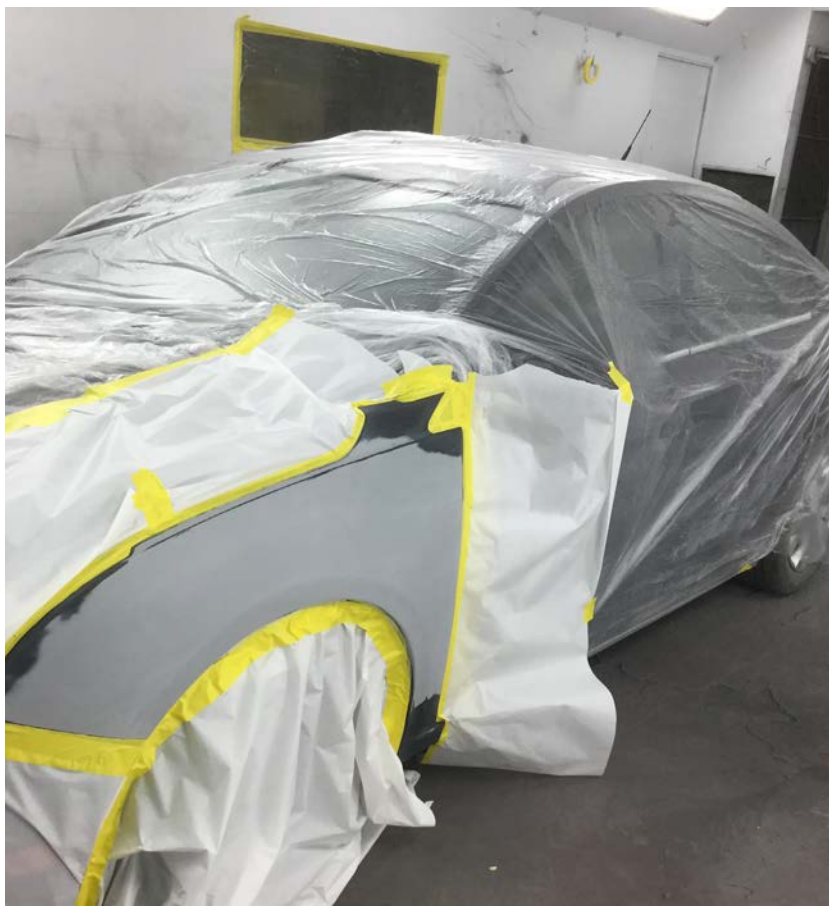
The main points of the day were to work hard and be safe all day while managing time and getting the work done with 14 other people using the shop.

TEACHER REFLECTION

The kids worked hard and got a lot done. Some had to wait for the booth because their work didn't fit in the booth with all the painting going on. They got more practice and did a good job.







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Hairstyling
PERIOD 4
Kyle Von Riesen

KERASILK SMOOTHING TREATMENT

DESCRIPTION

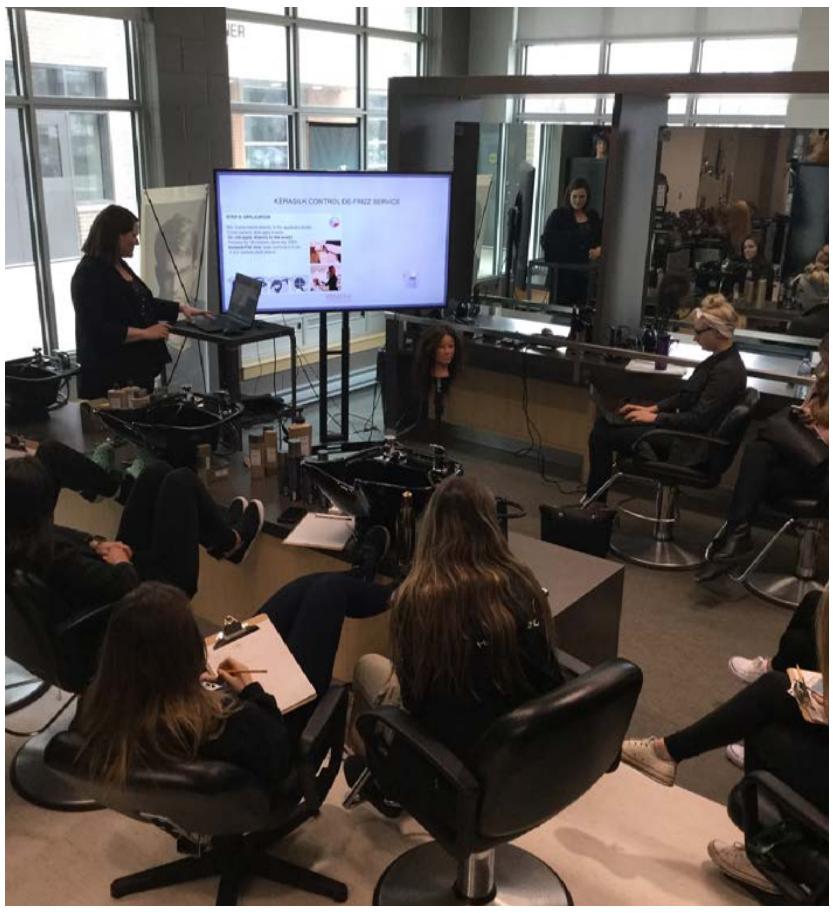
We had a guest artist start the day with product knowledge on Goldwell's Luxury line, Kerasilk. She demonstrated the process of the De-frizz Treatment and spoke about the importance of educating our clients using the correct products for their hair. In the afternoon we did a hands-on class using the Keratin Smoothing Treatment.

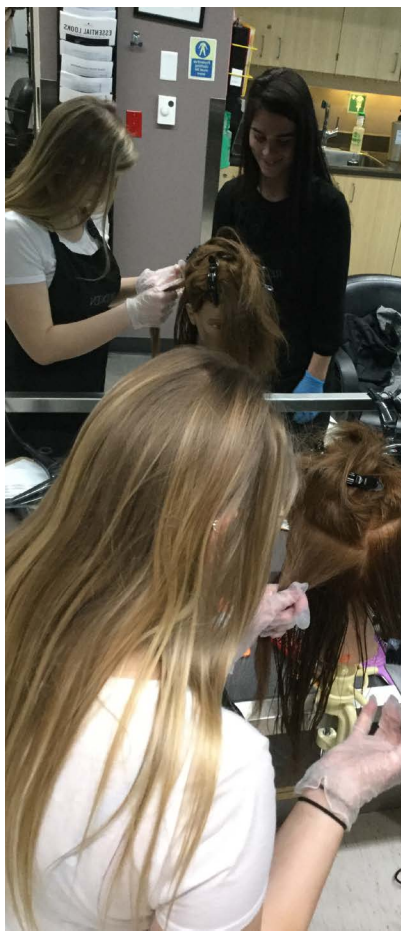
ESSENTIAL QUESTION

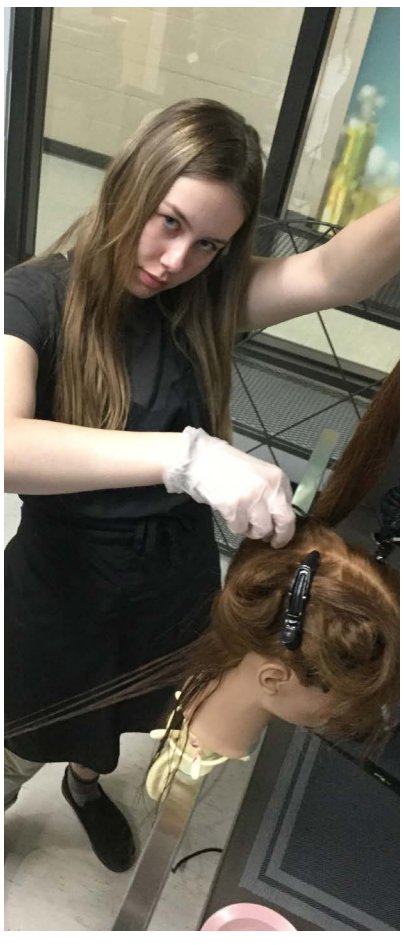
The focus of the day was covering the Advanced Chemical Texture curriculum and showing the students and advanced smoothing treatment that is currently being performed in salons. We also focused on how salons create new services in order to maximize client experience. Students gain experience learning how to take a new technique and product and how to market and promote it in a salon environment.

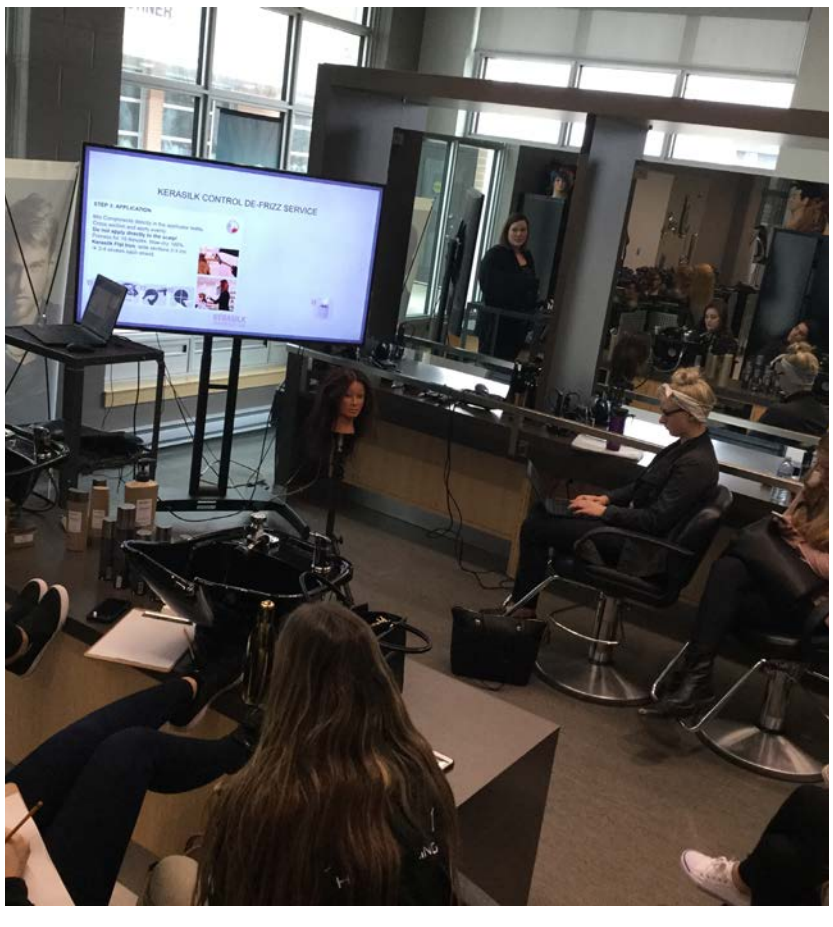
TEACHER REFLECTION

The day was great! Being able to do this treatment and have these discussions of how to create new services in the salon all in one day is very beneficial. It was a great balance of theory and practical application with lots of critical thinking weaved in to take a new skills and apply it in a business context.









STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 9 Drama
PERIOD 6
Shari Werner

MAKEUP & COMBAT

DESCRIPTION

In the morning we experimented with makeup, creating everything from Gamora from Guardians of the Galaxy to a Sea Siren to an exotic Bird and more. Then, in the afternoon students learned basic stage combat moves. Students used their newfound knowledge to create and perform mini skits. To end the day, we had an epic all class battle to answer the age old question - which is better, Coke or Pepsi?

ESSENTIAL QUESTION

These activities helped students to understand concepts of theatre makeup and different ways to create and enhance characters onstage. It also encouraged them to build community as they assisted each other with unique makeup experiences, combat techniques, and skit creations. Furthermore, it just exposed many of them to aspects of drama they may have not previously experienced.

TEACHER REFLECTION

I am so proud of my students for their bravery in going beyond their comfort zones to experiment with complicated makeup and combat techniques. Their eagerness to help each other, especially during the morning, was amazing! Drama is all about bravery and a willingness to have fun, and my students definitely epitomized these traits throughout their whole Innovation Day!

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

ENC 30S
PERIOD 6
Jackie Willis

COLLABORATING WITH GRADE 2 STUDENTS

DESCRIPTION

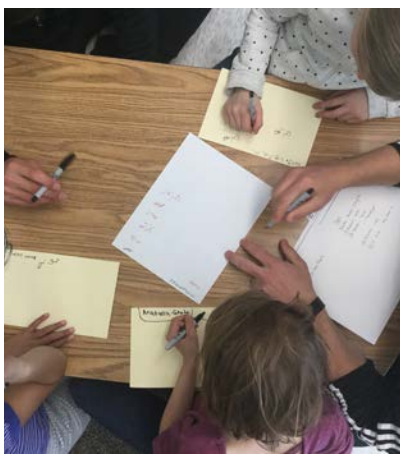
Our day was all about Collaboration, Building Community, Communication and Comprehension. The Grade 11s spent the morning creating a “lesson” plan for our afternoon mini-sessions with the Grade 2s at Elmdale. They chose topics they were experts in to share with the Grade 2s. In small groups, they had to come up with a plan to present their information where the Grade 2s would Listen, View or Read in order to comprehend the information. Then the Grade 2s would “present” their learning through a form of communication: Speaking, Representing or Writing. Lessons involved teaching origami, Arabic Language, Story Telling, Grid Art using Symmetry, a math game, Spanish and representing stories through art.

ESSENTIAL QUESTION

One of the main objectives of the day was to build community in our classroom and with the Grade 2 students through group work and collaboration. The grade 11s had to plan their lessons using ELA outcomes connected to Read, Writing, Listening, Speaking, Viewing and Representing. The students were able to bring in cross-curricular experiences through the choice of topic they taught the Grade 2s.

TEACHER REFLECTION

I was so impressed with the Grade 11 students; they really became leaders and positive role models for the younger students. They were able to have fun with the Grade 2s and still teach them their lessons. They worked hard in groups in the morning to plan thoughtful lessons they thought the Grade 2s would appreciate and enjoy. The Grade 11s really surprised me as many stepped out of their comfort zone and I was able to see a whole new side to them. The walk to and from Elmdale was also fun as students were able to interact more personally and new friendships were formed. I would definitely do this activity again with my class.



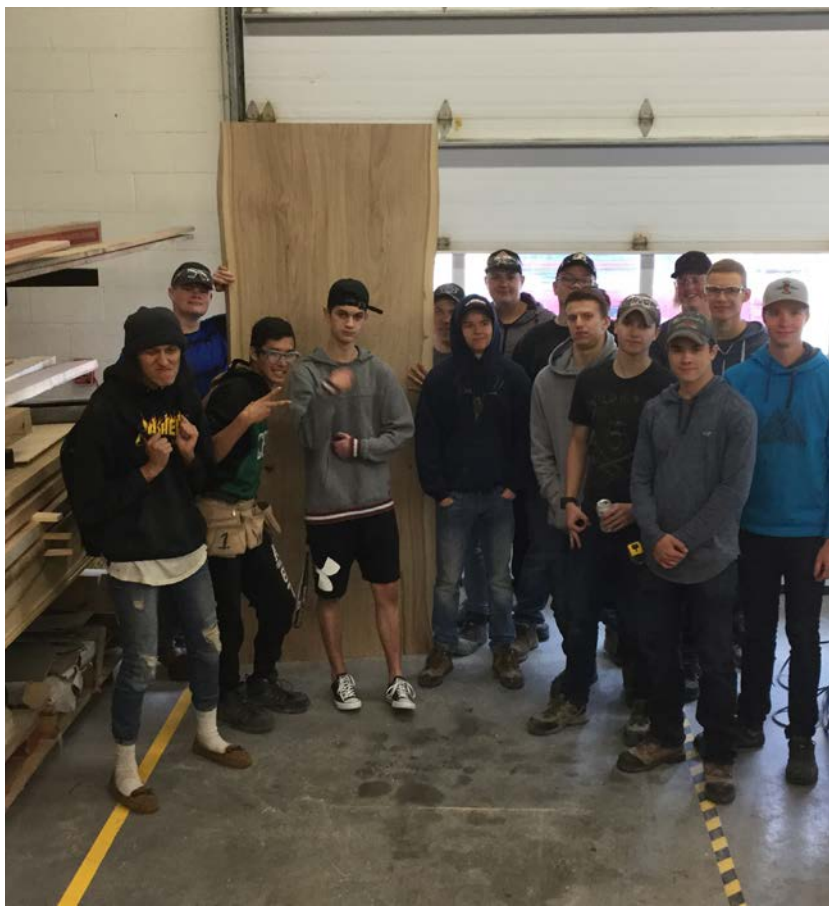
STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 12 Carpentry
PERIOD 4
Paul Wilson

BUILDING LIVE EDGE TABLES



DESCRIPTION

The learning for this day included how to prepare and mill large slabs of lumber to make live edge furniture. A combination of traditional milling techniques and modern tech based CNC milling were used to complete the slabs for the tables.

ESSENTIAL QUESTION

How to prepare large slabs of lumber so that they will not cup and twist over time while maintaining original grain patterns throughout the milling process.

TEACHER REFLECTION

It was very rewarding to observe students making connections and applying previously learned skills to a new situation. Students also made industry connections through the guest speaker from Beard Brothers Woodworking and found inspiration in their own woodworking.

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Science
PERIOD 3
Tamra Yorke

CHEMISTRY IN NATURE

DESCRIPTION

My class and I spent the day at Tourond Creek Discovery Centre where students put their scientific knowledge and skills to use in nature. The day started off with geo-caching to get moving & warm up “” hidden bags of candy made this activity especially fun! Next up was critter dipping. Students caught and identified quite a variety of “critters” and learned from the biodiversity of their findings that the water at TCDC is healthy. Our final activity was water chemistry. Students conducted chemical tests to learn the levels of various substances found in water from the Red River, Pembina River and TCDC. These tests help to determine the health of those waterways and, since they are all part of the Lake Winnipeg Watershed, the health of Lake Winnipeg.

ESSENTIAL QUESTION

The goal of today was for students to see real life connections (in their own backyard) to the topics we covered in the ecosystems and chemistry units from the grade 10 science curriculum. Students used the skills and knowledge they acquired in the chemistry unit to conduct tests on the levels of dissolved oxygen, phosphate, nitrogen, ammonia, and pH of various water samples.

TEACHER REFLECTION

This day surpassed my expectations! It was clear in the conversations that students were having about their learning that they really “got” the connections between the health of the ecosystem/waterway and the health of the Lake Winnipeg overall. “I’m not surprised that the phosphate levels are high in the Red River right now, it is spring and run-off from the fields is adding more phosphorus to the water” . Students found the water chemistry “easy” because they already had the skills from our in-class practice. I wanted students to experience “working in the field” and realize that the skills they learn in class are not isolated to the classroom, they can be transferred to many different situations for a variety of reasons (with real life applications).

STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

EAL31G
PERIOD 5
Kristy Zabowski

WHAT A WONDERFUL WORLD!

DESCRIPTION

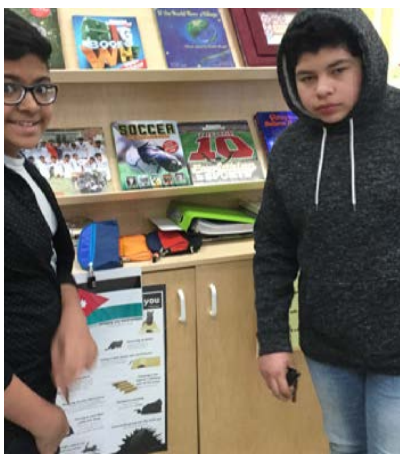
What a new and WONDERful world it is! English Language Students came in to class this morning and were immediately asked to pack their bags...today's innovation week plan was to have them embark on the expedition of a lifetime and go on a fabulous trip to see amazing sights around the world. However, a problem quickly arose, they were unable to board a plane as their "passports" were sealed in boxes that were locked with five different locks. Students worked in small groups to find the clues scattered around the room that would help them to open the various locks, discover the travel theme, and retrieve their passports before the given time was up! They had 60 minutes to "breakout" and be a part of this once in a lifetime opportunity - discover the 7 wonders of the world!

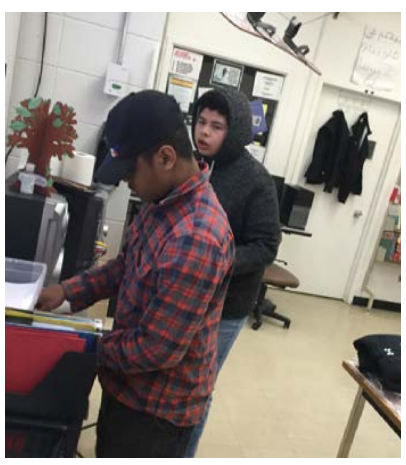
ESSENTIAL QUESTION

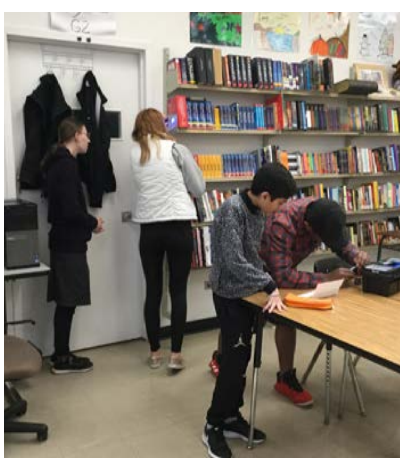
How do we express ourselves when we are at different levels of proficiency in the common language? What do you do when the teacher doesn't just hand over an answer? What if I am hesitant to work, ask for help, or talk with classmates? How will I overcome language barriers?

TEACHER REFLECTION

Students needed to think critically, problem solve, and use lateral thinking skills to figure out the clues (in English) to open their locks. I was surprised to see every student fully immersed as I expected several to shut down and give up easily because of the challenge. Students did get frustrated, especially when I did not freely give them any answers but they persevered and although some were not successful at completing the task within the time limit they were determined to continue working on each case until it was solved. It was awesome to watch as they stumbled through a tough lock and had their "aha!" moment when solving the problem. Students worked with classmates that they normally do not work with and the quietest students tended to "breakout" of their shells and lead!







STEINBACH REGIONAL SECONDARY SCHOOL

SPRING

INNOVATION WEEK 2019

Grade 10 Basic SMAW

PERIOD 6
Dean Zaluski

YOUTUBE STYLE VIDEO DEMONSTRATION

DESCRIPTION

Students were given a choice of topics in order to create a 3 1/2 to 5 min video demonstration. The topics ranged from welding techniques to types of materials used in the welding and fabricating industry. Students were given an ipad and used iMOVIE to shoot and edit their videos.

ESSENTIAL QUESTION

The concept of the demonstration video was one that challenged the students to take a procedure or a piece of equipment and “dig deeper” into its application and use. All students were forced to think creatively, communicate in a clear fashion and reflect on their work during the editing process.

TEACHER REFLECTION

This was a BIG risk! I wasn’t fully sure if this idea was going to fly. I know that if asked to demonstrate in front of a camera when I was in highschool I most likely would have been sick that day. All students were amazing and took the challenge head on. It was truly awesome to see their excitement and confidence grow during the process.