
Welcome to the School District 5 Design Labs

April 2021

Transformative Learning Update

Fun and exciting things happening in Fernie and Cranbrook

Ozobots Evo – Coding with Lines

Lego Coding Express – Coding with Colors

Kindergarten students from EIDES had opportunities to express their creativity and imagination at the Design Lab. They coded trains to make them stop, go, turn on a light, and make a sound using the new Lego Coding Express kits. They also learned how to control a robot by drawing lines for the robot to follow. Ms. Green's class drew a map of Fernie for the Ozobot to travel through. One group included a drawing of a chairlift for the Ozobot to reach the top of the mountain.



Makey and Scratch Video Games

Ms. McMullan's Grade 5 class at Rocky Mountain Elementary, under the guidance of teacher librarian Ms. Hansen, designed and programmed a video game using the Scratch coding platform. The game took a few weeks to code and design. After the games were completed, students created a game controller using Makey Makeys and conductive materials to use with their game. Some groups made buttons out of Play Doh and a few students used fruit to control their game.





Ozobot Evo at Rocky Mountain and FJ Mitchell

Ms. Stremecki's grade 2 class at Rocky Mountain Elementary had an introductory session on Ozocode coding. Each group drew a map of Elkford with at least 3 places. At each place on the map, they programmed the Ozobot to perform a specific function such as spinning, driving zig zag, backwards, and more.



Ms. Schultz's grade 3 and 4 class at Frank J Mitchell learned how to program an Ozobot using lines and colored patterns. The next day they listened to a reading of "Creepy Carrots" and coded their bots to drive in sequence to each part of the story using a story map. Students then used the Ozocode to program the Evo bots to follow the perimeter of the continent using lines and colored patterns.

3D Printing Fernie Secondary and Frank J Mitchell

Mr. Preston's grade 11 IT class designed parts and components of various objects of their choosing using the Tinkercad platform. Mr. Preston sent the prints to the FLC Design Lab for printing. Students learned about scale, proportion, dimensions, and work planes. Students will be given the completed prints to assemble and assess the accuracy of their measurements and tolerances.

Mrs. Chiasson's grade 4 class learned about measurement, dimensions, proportion, estimating and scale when they designed bubble wands in Tinkercad. They uploaded their completed design to a shared One Drive folder for printing at the FLC Design Lab. They also visited the Design Lab for a day of Lego Wedo robotics and were able to pick up their 3D printed wands. Some tested out their wands and many were successful!



Advanced Agriculture

Students at Parkland were treated to some cricket cupcakes. The students learned how to use a set of Microbits and Climate Action Kit circuit boards to water plants and feed crickets. They



learned how to program pumps and designed concept irrigations systems that were able to run autonomously. They let the systems run for a few weeks, harvesting the greens along the way. Once the crickets had grown a bit, they put them in the freezer, an ethical way of putting them to sleep, and then used them to make cupcakes. Yum!



The Fourth Little Pig Built His House Our of Cardboard

Grade 1 students at TM Roberts put on a play earlier this year about "Les Trois Petits Cochons".



So, when it came time to decide on a design project, it was easy to choose a cardboard house building challenge.

The students used the Make-Do kits and cardboard to build houses that wouldn't blow over in the howling wind of the Big Bad Wolf, a powerful fan. Make-Do kits contain kid friendly tools like screwdrivers, plastic screws and safety saws that are made for building with cardboard. Many of the designs survived

the wind test while a few toppled over. Everyone had a blast chanting and watching everyone's designs being built and tested.

<https://youtu.be/YkOtQ-tQZ58>



[I'm not afraid of the Big Bad Wolf](https://youtu.be/YkOtQ-tQZ58)

youtu.be

L'écran Vert

Students from Highlands took to the green screen at the design lab to act out short skits to demonstrate their French they learned in their core French class. The short skits consisted of short phrases they learned to pronounce. Filming, editing, and using special effects enhanced their project added a lot of engagement and enjoyment to the project.

[Core French 1](#)

[Core French 2](#)



[HES Core French 1](#)

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