

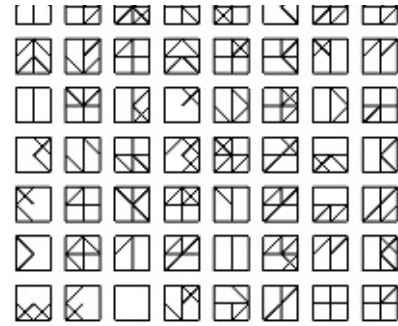
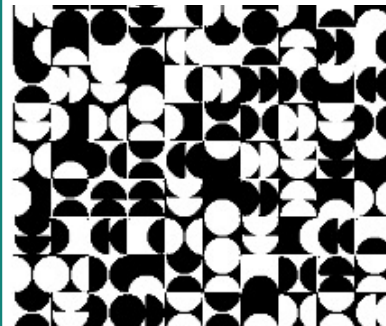
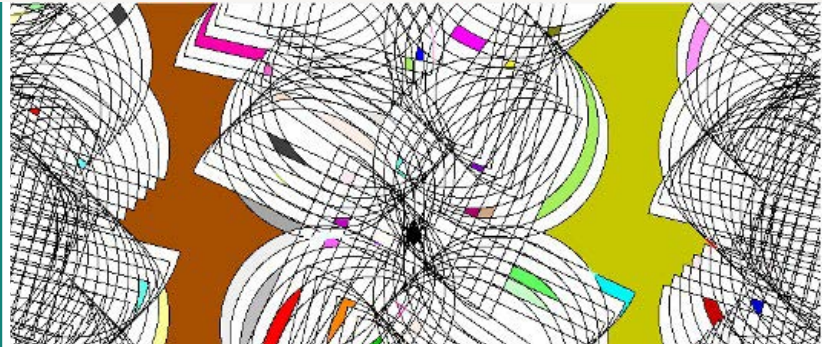


## Creation of Art by Coding

### Team Members:

Anthony Radcliffe and John Aquino

School District: Upper Grand DSB



## What We Did

The intent of this project was to focus on bringing together elements of coding and the art curriculum. We will also incorporate cross-curricular subjects like math and science to integrate into the project. Students will use the design process to identify the project; they will brainstorm and analyze ideas, develop a project, gather feedback from both computer science and art teachers and improve. They will reflect on the feedback received. They will create various art forms using coding and logarithms. Students will design art using fundamental programming concepts taught in grade 10 and 11 computer programming. From grade 9 and 10 art, they will implement the creative process; apply key elements and principles from various art disciplines. They will present and promote their art using the appropriate technology. The onset of Covid 19 greatly hindered much of our plans to do cross-curricular subjects, however, our main professional goal of studying visual art pieces and developing how to integrate them into our curriculum was accomplished. The report is structured to give the main mathematical ideas and gives an overview of the Lynx coding involved as well as our design thoughts, problems, workarounds or process with our Lynx code.



## What We Learned

- explored connections to coding to the curriculum for math, science and art
- where to connect the mathematical processes (problem solving, reasoning and proving, perfecting, connecting, communicating...) using Lynx as a basis for cross curriculum integration
- we better understand the reluctance and resistance of teachers to coding is the biggest barrier
- teaching code to staff and students really requires a strong knowledge of the syntax and Lynx environment
- as we got further into our work we realized that our coding background gave us a head-start but we needed to familiarize ourselves better with the coding language and work space so we choose to spend most of our time educating ourselves so we could then teach others
- we developed an understanding of the primitives used in LYNX
- we have learned how to navigate the work area (Page) for debugging and experimenting



## What We Learned (continued)

- we have learned the syntax and problem solving to create, organize and call procedures
- we learned how to create interactive and geometrical art “pieces” to inspire coding in art
- we spent a lot of time documenting the code for others to use and modify to lessen the learning curve for teachers and students



## Next steps to continue our learning

- use the knowledge we gained to teach other teachers so they can teach their kids
- continue to learn Lynx - we are both taking the Intermediate Lynx Coding Course
- with the new grade 9 curriculum we plan to create a lesson for the coding course
- next year continue to do lunch and learn coding with colleagues - especially with the arts
- even though we documented our code we would like to further structure documentation so it reads better for students/teachers to encourage learning by playing and changing code to reduce the learning curve and increase engagement.



## How We Shared Our Learning With Others

- Virtual Lunch-Learn with science, math and art departments at NDSS
- Twitter - [Post](#)



## Links to Our Work

- [Project Report \(source code and design documentation\)](#)

### Artwork Series:

- [Making Art with Squares](#)
- [Semi-Circle Ode to Picasso](#)
- [Random Squares - Charles Csuri](#)
- [Tiled Lines - Artist Unknown](#)
- [Reiner Schneeberger - Untitled 1](#)
- [Reiner Schneeberger - Untitled 2](#)
- [Roger Coqart - Untitled](#)
- [Zdenek Sykora - Structure](#)