



Open Connections

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Open Connections Magazine

Issue 76 | Spring 2021

Mission

Open Connections Magazine is a print publication devoted to extending the work of Open Connections, Inc.—our non-profit organization—beyond the physical boundaries of the Open Connections Village—our education center located on a twenty-eight-acre farm in a western suburb of Philadelphia, Pennsylvania.

The work of Open Connections, Inc., is to promote an approach to human development that we refer to as Open Education. It includes: an emphasis on self-directed learning (as opposed to a compulsory curriculum); experiential learning (doing something vs. only hearing or reading about it); conceptual development (valuing comprehension more than memorization); flexible thinking (the ability to innovate and create solutions when conventional answers aren't sufficient); collaboration (vs. competition); real work (vs. make-work); and process consciousness (an awareness of how the quality of process impacts on the probability of success in any sort of undertaking).

Open Connections Magazine exists primarily to espouse this approach to Open Education in general and OC's process consciousness in particular. We welcome submissions by writers devoted to exploring the importance of Open Education in their own lives and/or in the lives of their young people. Additionally we welcome artwork by adults and youth who are striving to find a voice in photography (or in other forms of artwork that can be photographed clearly for publication).

Staff

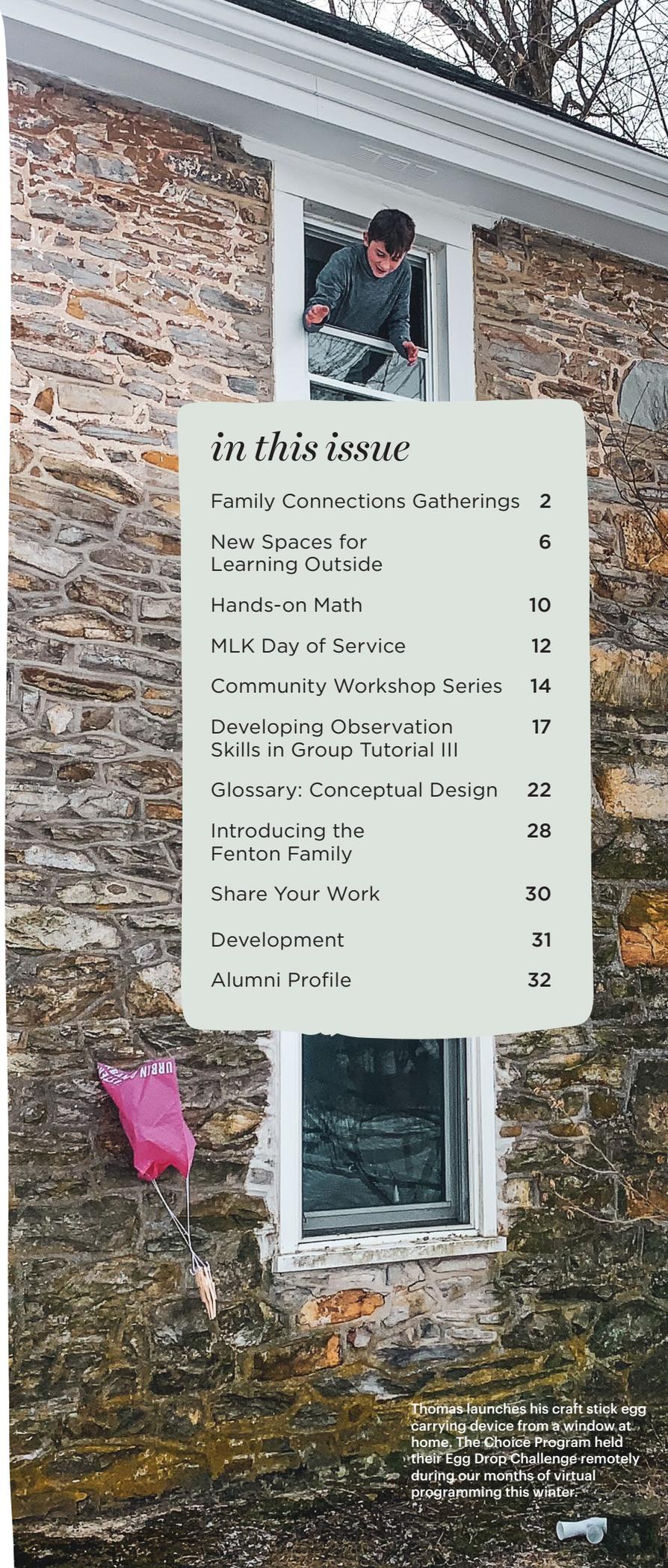
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Cover: Youth enjoy a Family Meetup outside of program time to take advantage of sledding,



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Thomas launches his craft stick egg carrying device from a window at home. The Choice Program held their Egg Drop Challenge remotely during our months of virtual programming this winter.

FROM THE MANAGING EDITOR

Margaret Welsh



As I write, the sun is shining and the patches of bare ground are expanding each day as the snow melts...we're headed into the growing season. The biggest excitement here at OC is the voices of youth in programs being held on campus again. Our community has done an amazing job of staying connected this winter during our time of virtual programming. Youth and parents initiated meetups - both outside in-person and over Zoom. This is life-learning and collaboration at its finest. We have pictures and write ups of these gatherings. We also have a youth art submission!

In the previous issue we heard from Group Tutorial I about how they incorporate outdoor learning into their programming. This time we travel outdoors with the Open Program who have a whole new "program space" set up along the creek.

Our feature of Group Tutorial III includes two parts, both highlighting the development of observation skills and creative thinking. You are invited to interact with both the rock challenge and the art challenge! Perhaps we can have our own OC art show this spring.

An important part of the OC learning process centers around the importance of conceptual development—really understanding concepts as opposed to rote memorization. One of the tools we use in many of our programs is manipulatives. Here we share a sampling of manipulatives used in learning mathematical concepts.

We have two interviews to share this time. The Fenton family shares their learning journey and reflects on their amazement about how much their son learns without traditional schooling. Then read about Garrett Healy, OC Graduate, who continues to thrive on the curiosity and explorer mentality that was nurtured during his time at OC.

Happy almost spring!

Margaret



Michelle (facilitator) and Leo celebrate the New Year in the Open Program.

Family connections gatherings

Open Connections is beloved as a place where young people spend their days filled with learning and adventure. Youth gain new perspectives with trusted, supportive adults who aren't Mom or Dad. In this partnership model of education, days of exploration with peers on campus complement days spent at home with family, along with hours of sports, arts, museums, libraries, and robotics in the community.

The pandemic radically and abruptly altered the world, and forced everyone back to the drawing board to reimagine the possibilities of a home education. Partnership meant something new when so many community resources closed their doors overnight. How would OC continue to provide engaging programming virtually while helping families find their way in this strange new landscape?

The answer was found, unsurprisingly, in...connections. Parents and facilitators turned toward one another with curiosity and vulnerability, recognizing they needed each other more than they ever had before. When our young people's wish for social events rose to the top of every list, the community, with incredible creativity and flexibility, made magic.

On campus and over Zoom, by a fire in the dark, pulling weeds and firing clay, making art and making cider, on a zip line and a bike, with soup and with pizza, on sleds and in streams, with lemon zest and sour dough, extracting DNA and rolling out pies, packing up toothpaste and gathering chessboards, making ornaments, and decorating cards. For both young people and adults, the sense of belonging to this place and to one another has never been stronger.









Parent Connections wants to support the amazing work of our facilitators and help bring to life the dreams of all of our community's members. If you or your young person has an idea for an event, workshop, Zoom call, or anything else, please reach out to Michelle West, Parent Connections coordinator, at michelle.west@openconnections.org, or submit a request to Rick and Margaret via Google form.

New Spaces for Learning Outside

By Michelle Brockway, Open Program lead facilitator



While exploring the creek, Leo grabs hold of a low hanging branch and swings himself across deep waters.

Nova and Luna explore the physics of a lever with the use of an old spindle and a wooden board. Nova works the board up and down while Luna inspects the pivot point.



During my seventeen years here on the Open Connections (OC) campus, I have spent many of my days learning and growing with the youth outdoors. Our 28 acre campus provides us with a plethora of opportunities to explore in nature. Frequently, our Open Program (OP) youth choose to spend the entire day outdoors, playing a game of Chip Trading on the OP porch, building waterways in the sand-pit, diving into a Real Work endeavor of caring for chickens and collecting eggs, hiking through the woods, or enjoying a picnic lunch under a tree deep in conversation with friends. Our programs have always relied on the freedoms of the outdoor spaces at OC.

This year has brought on new obstacles, and as with any challenge, the goal is to “look on the bright side” and a positive path forward. When OC’s programs started this year, our main goal was to keep the health and safety of the youth and facilitators in mind while also continuing to provide quality programming. What could be better than to make even fuller use of our 28 acres! With the thought of holding programs outside all day, facilitators put on their “flexible thinking caps” and channeled their “creative thinking.” Facilitators collaborated and together created “new” outdoor program spaces ready to take on rain, snow, and cold weather. The excitement surrounding the new spaces was evident. Facilitators looked forward to the day when our program year would start and we could share in our excitement with the young people. As youth arrived on campus the enthusiasm continued. The jubilation surrounding the outdoor OP program space was contagious. Youth passing on their way into the woods stopped for a quick glimpse of the new space, warming of their hands around the OP fire-pit, or pausing to take a closer look at the observation area hoping for a sneak peek of a frog hopping by.

“A space that was trees and brush is now a warming space for youth to explore. A previous pile of thorn brambles is now a cozy reading nook where youth can enjoy a story while listening to the trickle of the creek water flowing over rocks. Where trees have given us shade from the sun, tarps have been added for additional rain cover to keep us dry. Lab explorations, art creations, and building constructions have taken over the large tables on the OP porch.”





The Open Program's new outdoor space invites many new explorations.

“An undisturbed area has been reimagined into a purposeful space for youth to hone their observation skills. This observation area encourages youth to glimpse critters and plants growing and developing.”

Cataleia examines the insides of a geode which she carefully worked to chisel open.



Jane leads the group in a game of “Willaby Wallaby Woo” around the OP fire pit.

During the weeks of on-campus learning in the fall we found that we were using “old” spaces in a brand new way. A space that was trees and brush is now a warming space for youth to explore. A previous pile of thorn brambles is now a cozy reading nook where youth can enjoy a story while listening to the trickle of the creek water flowing over rocks. Where trees have given us shade from the sun, tarps have been added for additional rain cover to keep us dry. Lab explorations, art creations, and building constructions have taken over the large tables on the OP porch.

Creativity appears to be at its finest when we are immersed in nature. Large wooden spools which are in our new outdoor space to serve as tables have been flipped and transformed into a beam and fulcrum. Youth took turns exploring physics in motion and used this as an opportunity to hone their problem solving skills to find the right placement for the beam. They explored the nuances of balance as they carefully rotated the beam across the fulcrum. The beam and fulcrum were then turned into a balance beam and later into bridges. Youth used their flexible thinking

skills to create multiple exploration opportunities from a “table” and a board.

An undisturbed area has been reimaged into a purposeful space for youth to hone their observation skills. This observation area encourages youth to glimpse critters and plants growing and developing. Youth from Group Tutorial III put their Makerspace skills into practice and created a sign welcoming people to enjoy this space with their eyes only so that we keep it undisturbed. We are thankful for this opportunity to enjoy the surroundings of new life while respecting our environment. When we are on campus in the spring, we will enjoy the new tadpole hatchlings and the jumping of the frogs in and out of the creek.

This year has shown us again the importance of frequent adventures in nature. As we move forward in years to come we will continue to explore learning in the outdoors. We will investigate every nook and cranny of our 28 acre campus. I am sure our youth have some ideas they are eager to share. ©

Jack shares his reading development with the group as he sings a song of “Mr. Pumpkin” on a warm autumn afternoon.





Cuisenaire Rods

Cuisenaire Rods are colored rods in increments of 1 cm, ranging from a 1 cm cube to a 10 cm long rod. They are used to explore mathematics through introduction of and reinforcement of fundamental math skills including pattern recognition, sequencing, logical thinking, measurement, addition, subtraction, multiplication, division, geometry, and fractions.

Hands-on Math

By Michelle Brockway, Open Program lead facilitator



Chip Trading

Chip Trading is a game that combines chance and skill through trading, regrouping, and counting to reach your personal or group goal. Skills of problem solving, making connections, one-to-one correspondence, and place value are practiced as you make your way around the Chip Trading board.

Manipulatives abound in OC program spaces—serving to deepen understanding of mathematical concepts and meet our young people wherever they may be in their development. Here, we introduce a few of these tools and the ways in which we use them to support Conceptual Development—the process of understanding, achieved by figuring things out, rather than by rote memorization of answers and techniques. Many of these materials are first introduced in the Open Program and then are revisited throughout the Group Tutorial Programs as youth develop understanding of more and more complex concepts.

Dime Blocks

Dime Blocks are 3-dimensional foam blocks. They support development in spatial awareness, visual perception skills, volume and surface area, fine motor skills, and 3-dimensional shape understanding. These versatile blocks, like all of our conceptual development materials, are used with youth of varying ages.

Unifix Cubes

Unifix Cubes are colorful interlocking cubes used to develop understanding of units in math concepts. This understanding supports the development of one-to-one correspondence, number sense, place value, graphing, and patterns. Unifix Cubes also act as a tool for developing readers when blending and segmenting beginner words.

Attribute Blocks

Attribute Blocks come in different shapes, colors and sizes making them perfect for developing a variety of math, logic, and critical thinking skills. Activities include sorting, pattern recognition, sequencing, making sets, and solving story problems. A favorite use of the Attribute Blocks is Venn Diagram challenges, which can be easily scaled and used with youth of all levels of skill development.

Rekenrek

Rekenrek is dutch for "calculation rack." Made up of rows of ten beads each, five white beads and five red beads in each row. A rekenrek is designed to build an understanding of the five-structure and ten-structure of numbers. At OC, the Rekenrek is used to support young people in composing and decomposing numbers.



Hope
Lives in All
Places

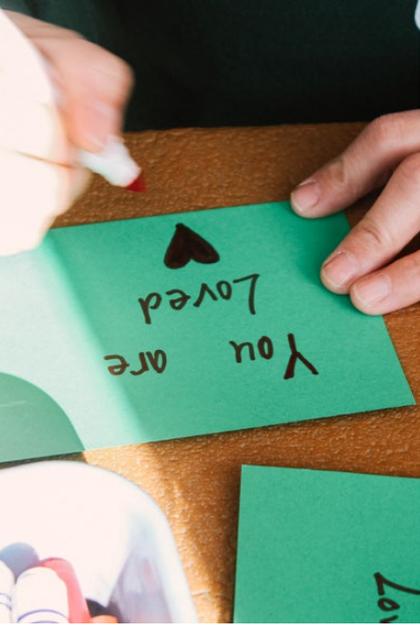
Open Connection's Day of Service on Martin Luther King, Jr. Day, 2021

By Meghan Pizzica, OC Parent

Thank you to everyone who lent a hand and supported our Day of Service on Monday, January 18, 2021. More than a dozen OC families came together in memory of Reverend Martin Luther King, Jr. to serve our Open Connections community and our neighbors in need. It was an amazing day of doing good for others!

This year, we served our OC campus and community, The Life Center Shelter of Eastern Delaware County, Making a Change Group of Chester, The West Chester Food Cupboard, and the Episcopal Community Services/St. Barnabas Mission in Philadelphia.

OC youth and their families packed personal care packages for sheltered men and women, toy packages for unhoused children, and game packages for families in need. We also participated in a Peanut Butter and Jelly and Brownie Brigade in which youth made sandwiches and sweet treats to accompany our care packages for the shelters. Youth and parents wrote notes to accompany the care packages, sharing the thought that hope lives in all places. There were a few brownies left over to sweeten our day, too.



A Group Tutorial I youth expressed the wish of combining our efforts and making a sizable donation to a local food bank. Many OC families supported his wish by bringing nonperishable food items and personal goods to campus. Brendan and his family then delivered our donations to the West Chester Food Cupboard.

People were invited to write notes of appreciation to the men and women who cleaned up our nation's capitol after the January 6th disruption. We sent our gratitude for their energy and dedication to our national government buildings.

We served our campus by cleaning up the OC property. Winter winds have carried and deposited litter that nestled among our trees and brush. Young people and their families extracted these pieces of plastic and paper and appropriately disposed of them. Campus is definitely looking neater!

One family suggested we build a Social Justice Lending Library on campus. Several youth found an old bookshelf in the attic that would make a perfect library. They gave the shelf new life by sanding and staining it. One young person compiled a list of all of

the donated books and categorized them. The new book collection includes picture books and stories for young readers with BIPOC main characters, African-American literature for teens and adults, biographies or histories of accomplished Black and Brown people, and non-fiction books about racial and social justice and combating racism. This lending library will live in the Parent Library, and, in the short term, will be brought outside when we are on campus for community events. POC and Social Justice book donations are ongoing and always welcome.

Providing space and support for families and youth to create a self-directed life is at the heart of what defines Open Connections. This Day of Service, which was spontaneously initiated, developed, and realized by OC families over the course of just a few days, demonstrates OC's philosophy centered on self-direction. We inclusively sought to seek out and support each person's wishes for the day and created space for all ideas. The freedom to share, create, and implement possibilities is alive and well at Open Connections! ©

Community Workshop Series



Pie Making with Lisa Huis



Søren and his family admire their finished apple pie after Lisa's community pie-making workshop.

LISA



“Pies are unpretentious and versatile, and they speak of home. They are also personal. I was reading about one person’s quest for a foolproof crust (read: consistently flaky, tender and easy to roll out); the science was very interesting, *and* I changed it to suit myself anyway.”

Our OC community is an extremely talented and passionate group of humans and there is so much to learn from one another! The Community Workshop series kicked off on the first Friday in February, as an opportunity to learn new skills from the comfort of our own homes.

Our resident pie-baker extraordinaire, Lisa Huis (parent to 3 OC alums, OC facilitator, and board member), guided participants through the delicious process of baking apple crumb pies, lemon-crust blueberry pies, and quiches. The event was a hit as evidenced by the overwhelming participation!

We’ve reprinted the blueberry pie recipe on the following page for all to enjoy and we hope to see you for a future community workshop—perhaps even hosting and sharing your skills with all of us!



Gwen and Albert reference Lisa’s instructions on Zoom as they collaborate on the apple pie below.



The Johnson-McNichol family created both sweet and savory versions—a crumb pie and a quiche.



Pie crust (for 8"-10" pies)

For a two crust pie (or lattice):
2 cups flour (unbleached, all-purpose)
1 teaspoon salt
2/3 cup cold butter (salted), cut into little cubes
Ice water-3 tablespoons
Vodka from the freezer. Yup.
-4 tablespoons

For a one crust pie:
1 ½ cups flour
1/2 teaspoon salt
1/2 cup cold butter (salted), cut into little cubes
Ice water-2 tablespoons
Vodka from the freezer-3 tablespoons

Making a lemon-crust blueberry pie?

You'll also need:
generous 1/2 teaspoon lemon zest
1 tablespoon lemon juice

A note about ingredients :

Above is just a guide to ingredients. Know that you can use many different types of flour and fat and you will have varying outcomes. I encourage you to be playful!

Tools you might use for the crust:

Measuring cups and spoons, a rolling pin, waxed paper or a baking mat, two butter knives or a pastry blender, whisk or fork. Plus any zesters, juicers, knives, graters for filling.

Making the crust (basic):

1. Measure flour into a bowl, mix in salt with a fork, or whisk. (If you are making a lemon crust, add zest here.)
2. Cut butter into flour/salt mixture, using two butter knives or a pastry blender, until butter pieces are about the size of small peas.
3. Add vodka and cold water (if you are making a lemon crust, sub in a Tbs. of lemon juice here.) little by little, distributing moisture evenly with a utensil; stop when it's just damp

enough to form a ball. ****The less you touch it with your hands, the better it turns out!***

4. Gather into one or two balls, depending on how many crusts you are making. Flatten each into a disk, wrap in plastic and put in the refrigerator for an hour.
5. Roll out one disk on a floured surface into a circle that is a little bigger than the pie plate you will be using. Flop the crust over the rolling pin and lay into the pie pan.
6. Make the crust lay flat to fit into the pie plate. Curl under the extra dough, crimp and refrigerate for an hour or so. If you will be making a pie that has a top crust, don't crimp just yet! Refrigerate bottom crust as is.

Blueberry Pie filling:

4-5 cups frozen or fresh blueberries
2/3 cup sugar
1/4 cup flour
Dash salt
Lemon zest
Lemon juice
Butter

1. Combine the first four ingredients and let sit. You could try substituting 2 tablespoons of cornstarch for the flour as a thickener.
2. Add blueberry mixture to the chilled pie shell, sprinkle with lemon juice and dot with little pats of butter.
3. Roll out the second crust disk, cut into 12 long strips and weave a lattice.
4. Bake at 400 degrees until bubbly and warm in the center. If your berries are frozen, this may take 50 minutes.
5. Cover the crust rim with foil strips after 30-40 minutes in the oven if they start to get dark.
6. Do NOT refrigerate leftovers. Cover with foil and leave on the counter.



Locke is ready to dig into his lemon-crust blueberry pie.



Cataleia's pie is ready to be popped in the oven at home.



Aria adds the crumbs to her Apple Crumb pie during the Zoom workshop with Lisa.



Looking to See, Seeking to Understand

DEVELOPING OBSERVATION SKILLS IN GROUP TUTORIAL III

By Kelly Dillon, facilitator



“We can call on all of our senses to collect information, wonder, possibly recognize patterns, and help us ask more informed questions.”

Observation skills are valuable in all areas of life. As we look to see, seeking to understand, we can call on all of our senses to collect information, wonder, possibly recognize patterns, and help us ask more informed questions. With new questions we can hypothesize, predict, research, and test these ideas and theories. As naturally as this unfolds in our day-to-day lives, we also devote a lot of time to the development of observation skills in the Group Tutorial III program. Whether approached subtly or with intention, through discussion, debate, games or activities, our understanding of ourselves, each other and the world around us grows with our ability to keenly observe and grapple to make sense of things. Piecing together bits of information as we puzzle together a bigger picture happens rather organically while reading and discussing a book, conducting an experiment, studying social cues, or collecting and recording data for a citizen science effort. What follows are two examples of Group Tutorial III projects that we have enjoyed this year, and an opportunity to participate in the fun. (continued >)

Group Tutorial III makes journals each year, to be used throughout the year, for field notes and nature journaling. 'Look-See' is an annual project intended to develop observation skills through descriptive writing and drawing. Each person is given a specimen of the same category in a paper bag. In years past we have used leaves, shells, feathers, nests; this year we are studying rocks. This is a 3-part challenge: creating a drawing, writing a detailed description, and in the end working to match all of the drawings and descriptions with the specimens. I find that in drawing we see details that may have otherwise been missed; there is the opportunity to become more adept at observation, as well as helping to retain information. Frequently, the processes of studying and drawing, and, studying and writing descriptively, support and inform each other. Working with objects of the same category makes it necessary to dig deeper into the well of descriptive language. Youth are free to use metaphors and similes in creating analogies when noting measurements, specific colors, shape, size, texture etc. Another benefit of this activity is that using in this way is often associated with mindfulness as it tunes our awareness to the details of the present moment and what's in front of us.

Match the drawings, descriptions and specimens pictured here!



This stone would nest easily in a teaspoon (silverware, not measuring). It is made up of particles and bits throughout that are different in size, color, shape and texture. The smaller particles that make up the base are sandy in texture and middle/medium gray in color. The larger bits are a visibly smoother texture and vary in color from white to different tints and shades of sea green. There are two significant chips, one on the edge and one on the face surface.



My rock is black with a few white horizontal lines. It is in a sort of rectangle shape and it is a bit bigger than a quarter. The lines are thick and thin—with the thick ones colliding in the center. The back has a small hole and a few scars, as does the front. It has a bump on the “long side” of the rectangle-ish rock.



My rock is a pointed mountain. It is semi transparent. It looks like a crystal. It's about the size of a small unshelled walnut. It looks like quartz.



This rock reminds me of a friendly ghost shape, more rounded triangle than angular and sharp. A generous palm-sized, orange-y solid with only a spattering of speckles and sparkles.



The rock is small and somewhat boring. It's surface is covered in horizontal stripes. It's shaped like a bruised spleen.

Shaped like a bird skull. Strips of glitter, gray, and white. Rough texture with some smooth areas. Reminds me of a storm cloud right before the rain ends.

My rock has patches of black, brown and tan. It is about half times the size of the pencil sharpener that is in your binder. It is smooth-ish and is a little bit chipped.



nearly true to size



The rock is the shape of an oval. There are many different colors in it: a peach color, a slightly greenish dark grey, light gray, and little specks of black. There are lots of little dots, spots, specks and splotches of the colors previously mentioned. It is rough in texture and it is pretty light in weight. It is around an inch and a half by an inch in size and it is around a quarter of an inch thick.

My rock has one rough side with the other side being smoother. My rock is also a trapezoid. The rough side has bits of a mirror-like rock in it (Mica). The general color is a dull grayish-turquoise. The rock is 1/3 inches in height when on it's largest side. The smoother side has a diagonal ledge in the rock about 1/2 inch long. The more smooth side reminds me of a Birdseye view of the mountain range.



The quarantine measures brought on by the global pandemic inspired a creative challenge posed by some museums around the world, that went viral: recreate a famous work of art, using things (including family members and pets!) you have around the house. Group Tutorial III members were invited to choose a work of art and share their recreation. This has been a great way to engage with art from a perspective similar to the artist credited with the work. In addition to simultaneously navigating precise and approximate thinking, and understanding the visual element of perspective, careful consideration was given as to how to use three dimensional objects to recreate a flat, two dimensional piece. Lots of flexible, critical observation and thinking! Last, and certainly not least, I would like to think there was joy and laughter.

Here is a sampling of the works from Group Tutorial III members.

Wishing for some more joy and laughter in your day? Why not participate in the challenge? Share your recreation! Wouldn't a community recreated art show in the spring be fun?



Recreated by Aria Ocean



Johannes Vermeer, Dutch, 1632-1675
Girl with a Pearl Earring, 1665, oil on canvas



Asher Brown Durand, *Kindred Spirits*, 1849



Recreated by Søren



Recreated by Indiana



Recreated by Elliot



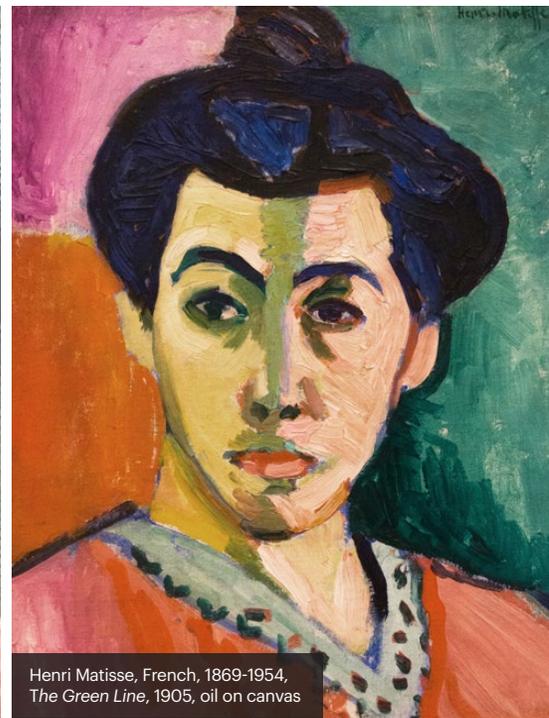
Diego Rivera, Mexican, 1886-1957, *The Flower Carrier*, 1935, oil and tempera on masonite



Jan van Eyck, Belgian, 1390-1441, *Portrait of a Man (In a Turban)*, self portrait?, 1433, oil on wood



Recreated by Kelly



Henri Matisse, French, 1869-1954, *The Green Line*, 1905, oil on canvas

*From the OC Glossary of Terms**

Conceptual Development

Conceptual Development (hereafter referred to as CD) is a term used by Harry Wachs and Hans Furth, co-authors of *Thinking Goes to School*. It describes the process of constructing intelligence “in its widest and fullest sense,” to quote the authors.

Understanding Conceptual Development begins by making a distinction between *development* and *learning*. “*Development* has to do with *general mechanisms of action and of thinking*,” according to Furth and Wachs, “whereas *learning* deals with the acquisition of *specific skills and facts* and the *memorization of specific information*.” (p 12; some italics added.) Both have value; however, anything that is merely learned without any basis for conceptual understanding is largely useless.

For example, suppose you were to “learn” in class that “ontogeny recapitulates phylogeny.” Later, on a quiz, you were given the fill-in-the-blank question, “_____ recapitulates phylogeny,” and being the bright student that you are, and well prepared for the exam, you were to write in the correct answer: *ontogeny*. Do you have any idea what that means? Can you give an example? If the answer to those questions are the same—“No”—welcome to the club.

In the exercise above, you may have *learned* the relationship between ontogeny and phylogeny, but so what? It has no meaning and no value for you (besides helping you get an A on a quiz). Similarly, there is the story of the Princeton graduate who, while strolling past a statue of a general astride a horse, confided in her friend, who was a history buff, “You know, I never really understood the difference between the American Revolution and the Civil War.” Now there is someone who “learned” but didn’t understand.

Here’s another example of the difference between CD and learning: Picture a three-year-old running her index finger over an array of twenty marbles, counting as she goes and saying, “one, two, three, four, five, seven, eight, ten, thirteen, sixteen, twenty, eleven, eighteen, twenty!” Would you say that she understands that there are twenty marbles in the set? Probably not. Partly because she wasn’t reciting the numbers in order and, partly because she named only fourteen numbers (well, technically, only thirteen, because she said *twenty* twice).

“On the other hand, there are many other examples of academic knowledge that are not backed up with conceptual understanding—where learners think they “know” a subject, and may even be able to recite numerous relevant facts about it, and yet they are clueless, or at least severely limited, with regard to their ability to make intelligent use of whatever they have “learned” (i.e., memorized).”



Owen and Seda work together to install the railing on the Tree Platform. Shaping Your Life members dreamed, designed and built the Tree Platform over the last 3 years for the community.

*The “OC Glossary of Terms” is available to borrow from the OC Office

Is this young person *learning* to count? I would say *yes*, she is. She has learned the names of several numbers, and she is in the process of learning the order in which they are recited when a person counts by one. (Counting by twos is another matter.)

What she has not yet *developed*, however, is an *understanding* of the *concept* of what is called “one-to-one correspondence”. She doesn’t yet understand that each number that she recites refers, not to a *particular* marble, but to *the group of marbles* that includes *all* of the marbles that she has touched up to that point (assuming that she has not touched any marble more than once, which, if you’ve ever watched a young person at her level count, is no sure thing, either).

We don’t worry about this with a three-year-old, of course. We know that, soon enough, she’ll “get it.” There’s no way that, in fifteen years, she’ll go off to Harvard or Uzbekistan not being able to count a set of twenty marbles correctly.

On the other hand, there are many other examples of academic knowledge that are not backed up with conceptual understanding—where learners *think* they “know” a subject, and may even be able to recite numerous relevant facts about it, and yet they are clueless, or at least severely limited, with regard to their ability to make intelligent use of whatever they have “learned” (i.e., memorized).

Perhaps the most dramatic example of this is David Halberstam’s book *The Best and The Brightest*, in which he attempts to describe how an elite group of Ivy League-educated men got it so wrong with regard to Vietnam. They simply didn’t seem to understand the concept of *nationalism*, as opposed to that of *communism*.

Here are some other examples that distinguish learning from development:

- someone who can read a poem and yet be clueless as to its meaning
- someone who can sing the words to a song but can’t carry the tune
- someone who can spot the names of towns on a map but can’t use it to find his way home
- someone with a Masters in psychology who can’t get along with people
- someone who can spout zillions of baseball stats but can’t hit live pitching
- someone who can’t show you pictorially why $2/3 + 1/2$ is (or is not) $1 1/3$

During a virtual Open Program session, Jack and Owen create apple cinnamon ornaments at home. Owen is molding the dough into shapes as Jack uses a straw to create holes to hang his ornaments.



– someone who thinks that South Dakota is the capital of Michigan, or that he can leave Boston at 3 o’clock in the afternoon and drive to Detroit in time for a 6 o’clock dinner.

Just as Howard Gardner identified eight categories of what he calls our Multiple Intelligences, Furth and Wachs have identified eight areas of thinking in which conceptual development occurs. These eight areas are: general movement thinking, discriminative movement thinking, visual thinking, auditory thinking, hand thinking, graphic thinking, logical thinking and social thinking.

Whereas each category is distinct, a single activity, such as handwriting, can overlap two or more categories and thus reflect the development of several different concepts (or *schemas*, as Swiss psychologist Jean Piaget referred to them). Handwriting, for example, involves both *discriminative movement thinking* (pencil grip) and *graphic thinking* (knowledge of the formation of letters). Dancing, on the other hand, involves (at least) both *general movement thinking* and *auditory thinking*. (Surely we all know someone who has “no sense of rhythm” or who has “two left feet”. Those are people who have not yet developed the necessary schemas to be able to move to music in a coordinated and intentional fashion.)

“With regard to Conceptual Development at Open Connections, it is important to remember that CD is non-instructional. CD is not, and by definition cannot be, taught. It can only be facilitated, in the sense that we can set up the conditions whereby a person can, when ready, create his/her understanding of various concepts. But no one can “teach” a concept per se.”

At Open Connections, we are primarily concerned with CD for two reasons. First, good general conceptual development leads to greater success in the more practical aspects of life, such as communicating effectively; being able to measure and calculate; using your hands in a coordinated fashion; predicting consequences and understanding assumptions.

Second, CD is *mandatory* for *genuine* academic success. Harry Wachs has said that he thinks that requiring young people to perform academically before they have developed the underlying concepts is not only futile, it is tantamount to child abuse. Without the underlying conceptual development, no one can possibly make sense of the required work. To be expected to do so during the early years can be especially damaging. At best, as John Holt so ably documented in *How Children Fail*, youth must resort to creating what we call Compensating Mechanisms—tricks, gimmicks, or mal-adaptations that allow one to get by but hide the fact that we are faking our way through school. (For example, watching a teacher’s face for clues when you don’t know how to figure something out for yourself; writing sloppily to hide the fact that you don’t know how to spell a word correctly; and looking for the birthmark that you know to be on your right hand so that you can then tell which direction is left.)

At worst, inappropriate expectations can lead to an assessment of learning disability and a life-long belief that one is handicapped if not outright stupid. When repeated instruction (e.g., so-called remedial reading drills) fails to produce the desired results, the conclusion arrived at is often that the “student” is *unable* to process the informa-

tion properly. In a way, of course, this is exactly right: he *is* unable, but not because he could never understand it—only because, at the present time, he hasn’t developed the necessary schemas (concepts) to do so. If instruction were to cease and attention were paid to helping him develop the appropriate concepts, then learning could proceed at a reasonable pace. Without such developmental progress, however, one is doomed to either fakery or total failure—and total withdrawal.

With regard to Conceptual Development at Open Connections, it is important to remember that CD is *non-instructional*. CD is not, and by definition *cannot* be, *taught*. It can only be *facilitated*, in the sense that we can set up the conditions whereby a person can, *when ready*, create his/her understanding of various concepts. But no one can “teach” a concept per se.

When is someone “ready” to develop a concept? That is always an unknown. They “get it” when they get it—just like a baby starts to turn over, gets up on her knees, starts walking and talking, or crosses any of the other developmental bridges that are a part of natural growth, only when it is her time to do so. What we *can* do is provide opportunity, ensure relative safety, avoid instructing, and otherwise generally stay out of the way.

What, then, are the so-called Conceptual Development Games or CD Activities? They are consciously provided opportunities that are particularly useful due to the expectations of academic (and other) performance that are so prevalent in our culture. If, for example, there were no expectations that a five-year-old would be able to write his



Sue and Hannah work to repair the shake table during the Group Tutorial IV structural gingerbread challenge “Shake Off” during OC’s December Community Day.

name, or that a seven- (or much younger) year-old would be able to read, we probably wouldn't need many of the Thinking Games that Furth and Wachs have provided. This is because young people who have been provided access to a rich and stimulating world of physical engagement (i.e., free play) would likely develop the necessary schemas on *their own*. They would thus be ready to learn (sic) specific skills such as the 3Rs well before they actually needed them to function in the outside world. However, because of the general social pressure (let alone typical school requirements) to learn to read, write and cipher before, say, ages 10-12, it can be helpful to ensure that the basic developmental bridges have been crossed as a matter of self-protection.

This is not to say that we should in any way push for early development. It is only to say that we would do well to assist with development whenever we see that inappropriate learning is accumulating in a way that will prove restrictive or even harmful in the years to come. We must do whatever we can to help our young people avoid the traps of fakery *and* failure wherever they will prove damaging in the long run. If we had a perfectly successful CD program for OC youth, they would finish at OC with the following attributes and abilities:

- able to read and comprehend effortlessly and at a high level
- able to write (with pen or pencil) smoothly, legibly and efficiently—no strained pencil grip or contorted arm placement, like the stereotypical left hander
- able to run, throw, kick, catch a ball and otherwise engage in sports in an enjoyable and satisfying way for all; have good overall coordination

“The goal is not getting the “right” answer; it is the getting of the answer—the thinking that goes into figuring out the right answer is what is important. That may mean saying nothing while a young person attempts to complete a puzzle, or carries a plate steadily while walking blind-folded along a balance beam, or works out the solution to a math or logic problem.”



Silas glazes the octopus tentacle sculpture he made during a Community Day organized by Parent Connections.

- able to drive a car safely and intelligently, including being able to respond quickly and appropriately in an emergency, easily park parallel to the curb, stop/start on a hill, drive safely in the snow and on ice, etc.
- able to use woodworking and other tools safely and effectively, for both carpentry and home repairs
- able to produce satisfying music, with or without an instrument
- able to collaborate effectively, have healthy friendships, demonstrate compassion for others
- able to seek, receive and provide help as wanted and needed
- able to speculate, visualize, imagine and create
- able to compromise if appropriate and persevere as necessary
- able to choose right over wrong and behave accordingly
- able to show respect for self and others
- able to understand and apply theoretical math, including such concepts as probability, permutation, classification, etc.
- able to dance and learn new dances; have a sense of rhythm
- able to draw well enough to please the eye

Of course, this list could go on and on. Hopefully, the point has been made: we seek a mixture of practical life and academic abilities and knowledge. The overall purpose is to preserve the freedom to learn and create.

The Practice of Conceptual Development at OC

The first rule of OC's approach to CD is to follow the dictum *Primum non nocere*—"First, do no harm." This begins with giving young people a huge amount of space to make their own choices and to explore in their own way. As we say in the Open Program, "as long as they're not interfering with the rights of others..." Of course, this includes many potential constraints, such as ensuring safety of self, others and the environment, including materials, so if a young person is banging away on a typewriter, it's not unfair or inappropriate to intervene and show her a more acceptable way to type. On the other hand, if that youngster is carefully pecking away, sometimes coming to the end of the line and continuing to type each new letter on top of the previous ones, that may well not be a time to step in. Consider the value of her realizing on her own the need to move something, do *something* differently so as to produce a legible product. Similarly, if a saw is being drawn across a board with the teeth pointed away from the wood, what if the youth were allowed to discover—maybe this time, maybe next time—that a change of positioning would result in more effective cutting. Consider the value of nourishing their sense of awareness rather than rushing to "teach" a new skill.

The second rule of CD at OC is, whenever possible, keep it optional. Young people should feel *invited* and enthusiastic to engage in a planned CD activity, not *compelled*.

The third rule is to remember that the goal is *not getting the "right" answer*; it is *the getting* of the answer—the *thinking* that goes into figuring out the right answer is what is important. That may mean saying *nothing* while a young person attempts to complete a puzzle, or carries a plate steadily while walking blindfolded along a balance beam, or works out the solution to a math or logic problem. No hints, no winces, no mumbled warnings—"Ooooh, you're so close! Try turning it another way."). These all distract the youths from thinking about the task at hand and cause them instead to focus on the praise they will get for satisfactory completion. At the end, questions like, "Did I get that right?" can be met with, "Tell me what *you* think" (and maybe also, "Okay, say some more about that..."). Remember, it's not the answer we're after—not the completed puzzle, the completion of a task, or any other end product. *What we are concerned with is the thinking that they do to get to their "answers."* Once the thinking process has been sufficiently developed, and the concept has been integrated, the "correct outcomes" will follow.

Fourth, remember to avoid praise in general. Praise quickly tends to direct an inquiring mind away from the challenge at hand and aims it toward the game of winning more praise. Internal motivation (wanting to meet the chal-

"Praise quickly tends to direct an inquiring mind away from the challenge at hand and aims it toward the game of winning more praise. Internal motivation (wanting to meet the challenge, accomplish the task, etc.) can too easily be replaced by external motivation (receipt of praise) as the reason for engagement."

lenge, accomplish the task, etc.) can too easily be replaced by external motivation (receipt of praise) as the reason for engagement. John Holt coined the term "praise junkies" to describe those who have become addicted to attention at the expense of real engagement—something we want to avoid encouraging wherever possible. Again, *Primum non nocere*.

Fifth, we use the term "*sweet spot*" to designate that level of any activity which is just between the areas of familiarity and understanding on the one hand—what Harry Wachs refers to as exhibiting "routine thinking"—and the area that is *beyond* the current conceptual reach of a person, which is "too high" in Harry's lexicon. In the middle is the space into which the developing mind is capable of moving at the present time. You'll know you've found it when you hear, "Wait! Wait! Don't tell me! I've almost got it!" That's when a new schema is on the verge of being created, and it is a wonderful moment indeed.

Lastly, we use the term "*friendly disequilibrium*," taken from Piaget's work, to describe the atmosphere that we seek to create when using the Thinking Games or observing other CD moments. The word *disequilibrium* refers to the fact that something is out of kilter, is "not quite right" or is incomplete in a youth's mind and there is an almost overwhelming desire to make it right—to figure out the puzzle, or what not. The word *Friendly* refers to the emotional climate that best supports CD. Distress, fear, anxiety—all interfere with higher level thinking. When Friendly Disequilibrium rules the day, people of any age can bring their whole self to the challenge at hand. The sheer joy of learning and development is bound to follow. ☺



Shaping Your Life member, Caroline, works to affix wire netting to ensure the safety of the tree platform.



Chris (facilitator) and Ollie work to get fire starters lit during outdoor programming in Group Tutorial II.



Silas works on his weekly watercolor in Group Tutorial II, taking advantage of the beautiful Gathering Space light.



During a virtual Open Program session, Wally addresses an envelope for a letter he is sending to a family member. Youth enjoyed sending pictures, letters, and "HUGS" to friends and family.



Henry adds some detail to his sculpture creation in the Open Program.



Luna works on her arm strength and explores the climbing ropes on a sunny day in the Open Program.



Aminah, Hannah, Ella, Norah, and Ruby gather around the remains of the shake table at the conclusion of Group Tutorial IV's Bi-Annual Structural Gingerbread Challenge.



Fallen gingerbread fragments are all that remains after Group Tutorial IV uses a DIY shake table to test the structural integrity of their hand-crafted gingerbread structures.

INTRODUCING

The Fenton Family



Please describe your family constellation:

Parents, names and ages of young people.

Ros (mom), Steve (dad), and Elric (11).

How long has your family been on this path of self/family-directed Open Education?

Elric started in the Open Program in 2016 after attending preschool and kindergarten at a Friends school. (It feels like much longer than 4 years!)

What led you in this direction?

After his early years at the Friends school, which we all loved, we struggled with the idea of transitioning to a traditional school. The lack of outdoor time was one major turnoff. We also desired flexibility to travel and visit family since we're on our own here in PA. Homeschooling was in the back of our minds, but with Elric as an only child (and introverted parents!) we wanted to make sure he had the opportunity to create strong social connections. I (Ros) started exploring and getting overwhelmed by all the possible

directions for homeschooling, eventually leaning towards unschooling and self-directed learning. I didn't want to just recreate "school at home" if we were opting out of the traditional school system, but I wasn't exactly sure what it would look like otherwise.

How did you get involved with Open Connections?

We had heard of OC through friends and decided to take a tour. Coming from a play-based preschool/K experience, the Open Program felt like the right next step, and OC provided a built-in support system as we started our homeschooling journey.

What programs does your young person attend at Open Connections?

Elric has attended two program days each year. This year he is in Group Tutorial II on Tuesdays and Thursdays.

How does your young person spend his time when he's not at Open Connections?

His days aren't super structured outside of scheduled classes or meetups. Being virtual much of this year combined with having Steve working at home has required some adjustment for all of us. Elric does math most days and spends some time reading. He is doing some book clubs this year focusing on history and social justice, as otherwise he would only read fantasy! Elric loves connecting with friends on Minecraft and for D&D. We live in a small, private neighborhood where he can play freely, so he spends a lot of time outside with neighbor friends. He loves (and learns a lot through!) audiobooks, so that's always part of his day. The only sport he has continued through the pandemic is karate, and he's excited to be getting close to black belt. Elric is also learning to play both acoustic and electric guitar. He takes zoom lessons for now, but Steve also plays, so they spend time learning favorite songs together. We are grateful for the time we've had this year to connect with other families for park dates, Group Tutorial II meetups, etc.

What are some of the key pluses to this educational approach for your family?

Flexibility and freedom, for sure. We appreciate the ability to choose what to focus time and energy on depending on Elric's interests. We love being able to explore and learn with him.

What concerns or challenges have you experienced along the way? How have you addressed them? Do you have any concerns as you look ahead?

Steve and I both went through the public school system, and my mom is a retired public school teacher, so it has been hard to let go of those ingrained expectations to meet certain standards of education. Starting out (and honestly even sometimes now), our biggest concern was "are we doing enough?" and "is he learning

what he should?” Time and experience with a more natural learning approach has helped alleviate this self-imposed pressure, along with connecting with families who have similar approaches. Conversations with facilitators at OC and other parents have helped tremendously in pushing through doubts and concerns along the way. When we pause to reflect on it, we are amazed by what Elric has learned without traditional schooling.

What is your approach regarding academics? Real Work? Play? Self-direction/self-motivation?

It’s definitely a combination approach, though the balance shifts with what works best for us as we follow this not-so-straight path. Math is not something he’s very self-motivated to do, so we do focus more intentionally on that. We realized early on that Elric is not keen on workbooks as a learning tool, so we’ve wound our way through various things to



“When we pause to reflect on it, we are amazed by what Elric has learned without traditional schooling.”

find what works best for him (currently for math we are doing a combination of Teaching Textbooks and Prodigy, both on-line.) Generally, we try to find ways to help him go deeper with what he’s interested in, while looking for natural openings to broaden learning stemming from a topic or interest.

What resources—people, books, curricula, places or organizations (museums, art centers, scouting, 4-H, businesses, etc.)—have you found helpful? How have they contributed to your youth’s development?

We really miss going to museums and other places where you can learn so much through a field trip or in-person, hands-on programming. Pre-2020, Elric enjoyed occasional classes at Chester County Art Association and programs through local nature preserves (The Land Conservancy was great!) We’ve had some positive experiences with Outschool recently—one was a math-based dragon drawing class and one focused on Howard Zinn’s “A Young People’s History of the United States.” Elric listens to a lot of audiobooks through Libby, and we listen to a lot of podcasts while driving to/from OC (Overheard by National Geographic is a favorite!). Brave Learner podcasts have been resonating with me this year. We’re planning to dive into a couple of the Brave Writer programs this winter focusing on books Elric wants to read, and I’m looking forward to creating a bit of structure with that. The people we have met at OC have been a huge part of our entire family’s development!

From your young person’s perspective, what are the main pluses of this type of education?

Elric loves the flexibility and freedom to choose how he spends his time for the most part. At OC, he appreciates the facilitators being so open to suggestions

and ideas from the group. And, he loves the time he gets to spend outside!

From your young person’s perspective, what could OC do to further enhance their OC experience?

He says he likes it the way it is. He just really wants to be back in person as soon as possible!

Looking back to when your family was new to OC, what events (Open Campus Days, Parents’ Meetings, Open Mic Night, etc.) helped your family become more connected to the OC community?

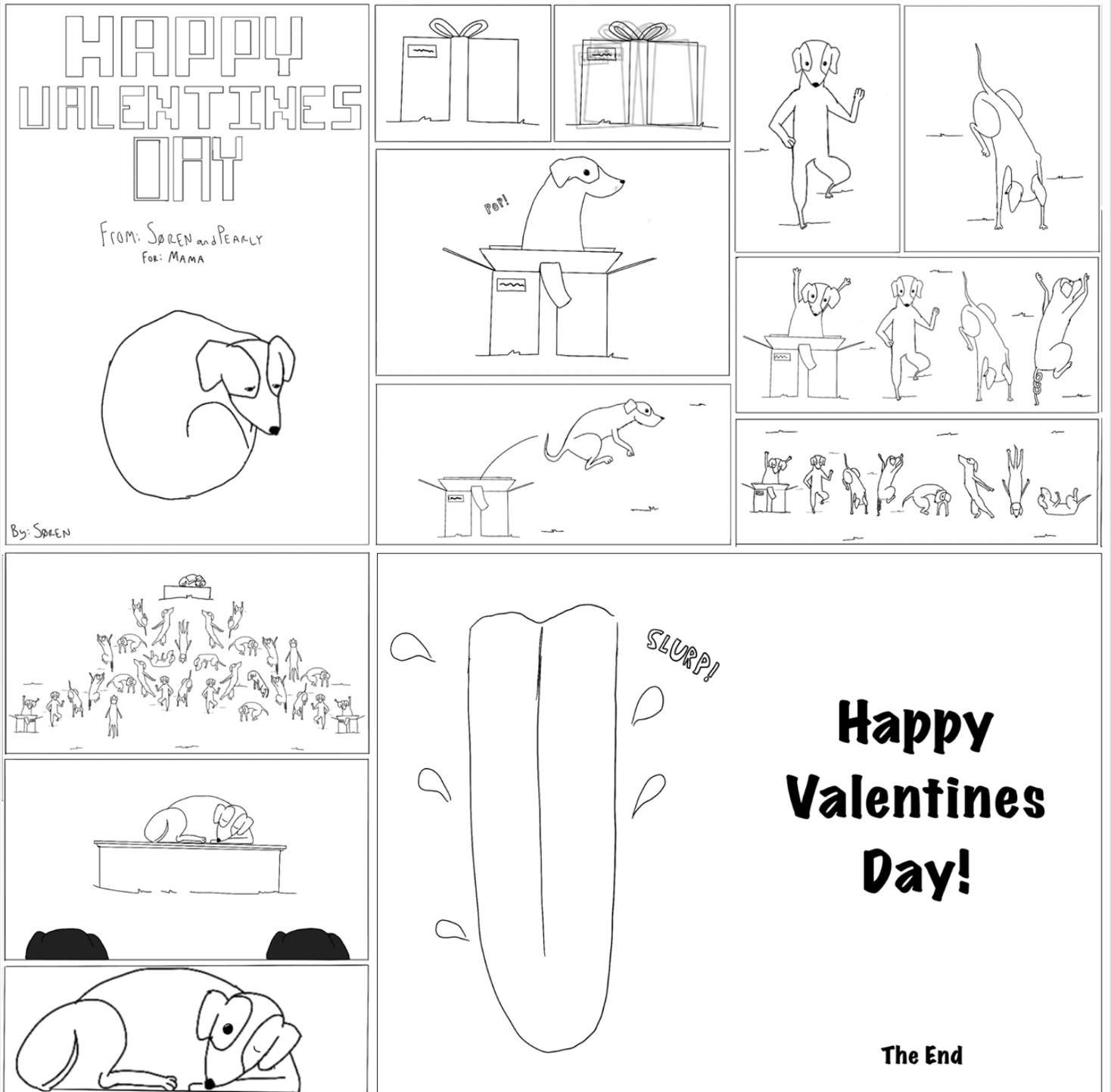
For me (Ros), just spending time on campus after programs helped me become better connected. As mentioned, Steve and I are both introverts, so we have to really push ourselves to go to bigger events—and we don’t always push hard enough to make it! The first Family Work Day we went to is memorable, as it was a great way for us to dive into a job and introduce ourselves to people we probably otherwise wouldn’t. We have missed out on a lot of the Friday events in the past because of our work schedules. I appreciate the recent evolution of parent-led Community Days and look forward to taking part as much as possible. I’m also excited about the Parent Connections group and the zoom calls and meetups we’ve had so far this year.

What could OC do to further your (the parent’s) experience, help you reach your un-met goals, or pursue them in a more effective or enjoyable manner?

We’re all feeling very positive about this year at OC, even though it was a rough start, and we were all dreading being virtual. I feel like our desire to be more connected to the OC community is happening in spite of it all! We look forward to more opportunities for deeper involvement and open partnership. ©

Share Your Work

Submission by Søren Kent



We want to hear from you

To contact Open Connections Magazine, e-mail us at oc.magazine@openconnections.org. Unsolicited articles, photography, and illustration submissions are welcome.

Development

This continues to be a challenging year for many educational organizations and non-profits, however it has also been a year of opportunities. Financially speaking, Open Connections is working to fill the large and unexpected budget deficit caused by this most unusual year. We began the year with a limited reserve and we received a forgivable loan from the Paycheck Protection Program. We have also applied for a second forgivable loan through that same program.

Our limited reserves and the government assistance, along with a smaller staff, has left us with a much smaller deficit than originally expected and we are hoping to cover most, if not all, of the remaining deficit through our Annual Giving Campaign. I want to thank everyone who has already contributed. Your donation, regardless of the size, helps and is greatly appreciated. For those who haven't made a donation, there is still time.

Donations can be mailed to:

Open Connections

1616 Delchester Rd,

Newtown Square, PA 19073

or made via our website at www.openconnections.org/support-oc/make-an-online-donation.

I am incredibly humbled by the outpouring of support through donations of time and money. Thank you for valuing Open Connections—the staff, the young people, the community.

-Rick

Rick Sleutaris,

Interim Executive Director and OC Parent

Chris (facilitator) and Brendan catch up during a sledding afternoon at OC.

ALUMNI PROFILE

Garrett Healy

Interviewed by Owen Healy, current Shaping Your Life member

What led your family to OC?

I spent a lot of time with the Holden family (previous OC family). Kathy Holden suggested that OC would be a good fit for me. When I was 9 years old I started attending Tuesday Tutorial II one day a week, and it all worked out!

How did OC help your effective communication skills?

The emphasis on team work at OC is extremely helpful for helping communication skills, especially the encouragement to collaborate with people you might not otherwise connect with. The opportunities to interact with other programs in multi-group games is great too.

How did OC help you develop your creative/implementation skills?

I think that the Teen Symposium was the best way to help me learn how to implement my creative curiosities. My symposium was on why we see color, how to make that a useful part of our daily lives, and how to make our lives safer (more specifically in traffic signs). I have always been interested in color and particularly enjoy pursuing color in photography, which I was able to pursue in various OC Choice offerings. The ability to take my interest in color and turn it into a paper and a talk was pretty cool.

Who influenced you most during your time at OC? In what way?

My graduation picture is fantastic because I think that almost all the facilitators at OC were in that picture with me at my graduation. Picking ONE who influenced me the most would be unfair without acknowledging all of the facilitators who influenced me.

What favorite memories of OC would you like to share?

Woodshop with Warren (previous property manager). I learned a lot from him about using power tools. He was calm and fairly reserved, but he was always curious. That was when I was in the Choice Program. Later on in my OC journey, I really enjoyed being an intern with Chris McNichol (current property manager). I will always remember working with Chris and his palpable, fun energy to things done. Another memory that stands out is the Logic and Probability Choice with Rick Sleutaris (facilitator).

I will also always remember working with and experimenting with Sue Wenger, and her encouragement and willingness to try things out even if she knew they weren't going to work the way that I wanted them to.



Garrett and Owen enjoy a hike on a snowy day.

How did OC impact you?

I feel like I learn things faster because of how I am naturally curious. OC's encouragement to pursue your natural curiosity is a big part of learning.

What have you been up to since graduating from OC?

Right after I graduated in 2013, I set out to fulfill a dream I had had since I was 12, which was to travel around the country. I worked that summer and into the winter and then traveled for about six months. I lived out of an old FBI surveillance van which I named "Gromblewompus." I drove all over the country, visiting many, many national parks. After I returned, I started working full time for an electrician, for whom I had worked some in previous summers. I have been working for them ever since. I have done high-end lighting infrastructure, fiber optic work, commercial electric distribution, data infrastructure, emergency backup systems and many others. Basically, if it has a wire, I have worked with it.

If OC was destroyed in a freak calamity, what one OC principle would you save?

The freedom to learn and create. It's like THE OC principle. You HAVE to keep exploration alive, it's what makes us human.

Describe OC in your own words.

OC is a thoughtful place, with lots of freedom of expression and creativity, warm and welcoming, very helpful and just a wonderful, joyful place that I always look forward to going to. ☺

