Middle School Virtual Courses	
Course Name	Course Description
Advanced Computers	Delve under the hood and take computers apart piece by piece to learn how and why modern pc's work. Students will take a trip back in time to see how computers have changed over the years and a look to the future developments on the horizon. Students will learn how to budget build a complete pc system. Later in the course, using introductory level coding, we will do group and solo Unity projects to build computer games from the ground up. Students will discuss pros and cons of different operating systems and different competing technologies. Students will also explore Raspberry Pi starting with new systems and learning some of the many things they can do. We will also take a look at careers in computers and technology as well as the changing job market due to automation. -Basic knowledge of computers strongly suggested.-
Advanced Open Build	Students will learn safe and proper use of hand tools and power tools including; router, table saw, planer, joiner, bandsaw, drill press. Students will practice and advance their knowledge of the design process that encourages free thinking and creativity. Example projects include; shop safety, bookshelf, sound machine, build a skateboard, build a bluetooth speaker. Young builders will begin to get familiar with the wide world of building materials and methods, they will design their own projects, make a plan, research, and execute in this free-build atmosphere.
Advanced Sewing	Advanced Sewing students will work through a series of sewing projects to build a library of skills that can be applied to future projects even after the course has been completed. Each project will be completed on a sewing machine with minimal physical assistance from the instructor. The goal of this class is for each student to build confidence to be able to relatively independently work through a project of their choice! Some examples of potential projects for this course are: bedside stuff holder, snuggie tail, knit shirt, quilt block hot pads, notebook and pencil holder, sunglasses or camera case, PJ pants, stuffed animal or doll, sleep mask, bowl cozie, wallet, and many other possibilities that are being explored!
Art	At the students own pace they wil discover and explore different art mediums, artists, and styles. Basic terminology such as color, texture, lighting, shading, and texture will be applied different art mediums the student will explore. Students will submit examples of their artwork and explorations throughout the year.
Art II	Artists in this age group will gain appreciation of art and artists from around the world as they are building on foundations. This will be more project based work. Drawing is a skill that can be improved with practice. Exercises in contour drawing, value, positive/negative space, contour drawing, and a variety of of drawing materials will help students not only draw what they see in the world more accurately, but also to use those new skills to draw what they see in their minds.
Beginner Sewing	Students will learn the basics of hand and machine sewing. They will learn to cut, and assemble simple projects and use an iron safely. Projects will be items such as simple stuffed animals, tote bags, dress up capes, and pajama pants.
Build	Tinker crates, fix-it projects, taking ideas from concept to finished projects is what build class is about. Students will learn the design progress, find the right tools and materials and complete their own projects. Concepts will include materials, tools, fasteners, paints, and how to make the right choices for their projects. Students will submit the plans and photos of their projects throughout the school year.
Career Explorations	What career are you best suited for? In this course, students will explore career options in many different fields including business, health science, public administration, the arts, and information technology.
Cheerleading	Our Discovery Center Turtles Cheerleaders will bring the fire and amp up school spirit through a learned combination of stunts, cheers, chants, jumps, dances and performances. With a heavy focus on leadership, safety, technique and team building skills, our cheerleaders will learn what it takes to be peer ambassadors, spirit raisers, athletes and entertainers.
Computers	Students will learn basic computer skills. Software taught will include; Excel, CAD, Quicken, and Fusion360. Students will also be learning typing skills, and other simple things like saving, archiving, and networking.
Cooking	Cooking, we all need to do it sometime in our life. Eating healthy is difficult without basic cooking skills. Students will learn the basics of cooking healthy foods. Kitchen safety and proper food handling and storage are a must. Students will learn the basics of measuring, baking, following recipes, and how to improvise with what is in the fridge.
Cooking Around the World II	Reviewing cooking basics, read recipes, and gain more independence in the kitchen while traveling the globe through food. Your student will review basic kitchen safety rules (stove, oven, knives, simple kitchen tools) become more comfortable in the kitchen all while being submerged in different types of music and cultures. They will learn some geography, climate and agricultural information as well!
Cooking II	Students will refine their cooking skills, learning new techniques and gaining proficiency in the kitchen. They will explore culinary additions from other cultures. Students will be expected to practice at home.
Design Thinking	Design Thinking tackles complex problems by; Empathizing: Understanding the human needs involved. Defining: Re-framing and defining the problem in human-centric ways. Ideating: Creating many ideas in ideation sessions. Prototyping: Adopting a hands-on approach in prototyping. Testing: Developing a prototype/solution to the problem. In this class we will take the principles of design thinking and apply them to various problems, utilizing rapid prototyping to test and retest solutions to determine what the best solution to any given problem is. We will cover a variety of problems from things like building the best mouse-trap powered car, to solving problems in our lives and even going as far to conceptualize big problems we face in the world today. This fast paced class will strengthen students abilities to problem solve and equip them with tools that will empower them to tackle any challenge in their path.
Digital Works	Digital media surrounds us today, but how is it created? Students will learn how to take edit and publish digital photos, videos, and sound recordings. Students will record and edit and upload digital videos. This class also includes learning various iOS, PC, and MAC software to help students create edit and store their digital media files.
DIY	Do it Yourself. Find an idea, obtain the materials, complete your project. Students will complete a variety of projects while documenting their learning along the way.
DIY Projects	In this fun and interesting class students will discover ways to make their own DIY projects. Slime, soaps, marbled jewelry dishes, wizard wands, windsocks, mason jar lanterns, nail polish art, pour painting projects, clay jewelry, arm knitted blankets, dreamcatchers, and seasonal projects. Each project will be accompanied by a step by step to do sheet that the students will place in their DIY made DIY Recipe Book to repeat it again at home.
DND	Start an Odyssey of mystery, magic and combat through the popular game Dungeons and Dragons. Led by an instructor, students will explore and develop skills in creativity, problem-solving, communication, collaboration, improvisation. This year we will be running an original module. It will be based during the copper boon of calumet and hecla. With historically accurate events, characters and technologies. We will also take a tour of the quincy mine hoist.
Entrepreneurship	What does it take to start your own business. Students will follow a program to step by step learn how to start and run their own business. Dig into creating your ideal customer, design a marketing plan, run the numbers, develop your product, and launch your own business.
Explore Nature	The world is full of magic things, patiently waiting for our senses to grow sharper. Sharpen your senses, hone your power of observation and learn about the life that shares the Copper Country with us. Learn about local plants, birds, mammal, weather, water, and soils. Keep your observations in your journal and learn to use field guides to help us understand the natural world around us.
Explore Your World	Local, region, state, country, continent, world, we live in a large place bursting with diversity. Challenge yourself to explore the world around you and share it with others. Visit a community event, participate in a fundraiser, see a performance, visit a nature area, learn about another culture or country. The challenge is to explore the world around you and journal comparing and contrasting your experiences, and sharing them with others.
Farming & Gardening	What does it take to start and run a farm? Learn about soil science and seeds, weeds and pests, fruit and vegetables. Research and planning are what makes a good farm. Plan what you want to grow then go out and do it. Journal your successes and learn to cook them.
Foreign Language	The history and spirit of a culture is in it's language. Challenge yourself to learn a different language. The first new language is the hardest, so get over the hard part and then learn a few more. Practice listening, speaking, and writing in your new language. Study vocabulary and journal your progress.
Gaming & Strategy	Gaming has been a constant in the world dating back 5,000 years! In this class we will focus on how to win, through strategy and a deep understanding of game mechanics we will analyze and play a number of games. There are a number of styles we will cover, including; Roll and Move, Worker Placement, Cooperative, and Deck-Building games. This class won't be all fun and games though (pun intended!), beyond learning successful strategies of games we will also dive into the history of gaming and the impact it's had on the culture
General Music	Introductory level instruction aimed to develop tonal, rhythmic, and analytical skills in music. Students will be able to sing within the context of a key, remain on pitch, and use a healthy singing voice. Students will be able to read, compose, and perform basic rhythms. Students will be able to discuss, identify, and understand basic music concepts.
Health	Middle School Health aids students in creating a foundation of personal health. Beginning with properly defining health, this course then builds upon basic health practices to emphasize the importance of balance. Attention is given to each of the six dimensions of wellness; namely, physical, intellectual, emotional, spiritual, social, and environmental. Students are taught the skills necessary to improve every aspect of health. They are also encouraged to reflect upon their own personal wellness each week.
Healthy Living	Healthy living; get plenty of sleep, exercise, and eat good food. Is there more to healthy living than that? Let's look deeply into what leads to a healthy lifestyle and learn to gather data and separate fact from fiction as we start a life-long journey towards healthy living. Students will keep a journal of their findings and progress.
Hobby	Learn to do something new. Be a lifelong learner by starting a new hobby. Do the initial research, collect the supplies and equipment needed, and make the beginner mistakes as we learn by doing. Students will keep a journal of their progress into their new hobby, be it mt. biking, stamp collecting, blacksmithing, survival, or singing.
Home Economics	How much do we spend on food in a month, how do you pay the water bill, how do I cook my favorite meal? We will all manage our own living space at some point. Learn about life on your own from balancing checkbooks to fixing the washing machine. Students will keep a journal of their learning and progress throughout the year.

Horsemanship	Students will learn the basics of care and handling of horses, including coat, hooves, and diet. Then students will learn tack and horse behavior. all this culminates into riding a horse and learning to communicate together. Students will progress from simple to more advanced riding techniques.
How It Works	How it works? Let's take it apart look at it's pieces and put it back together. Learn mechanics and machines and learn while doing. Using the internet as a research tool students will learn to troubleshoot and problems solve by learning how things work. Students will keep a journal of their projects and fixes throughout the year.
Intermediate Sewing	Intermediate sewing students will work through a series of projects to build fundamental skills, confidence, and a love of sewing. The majority of the class projects will be completed on a sewing machine with partial assistance when needed. Some examples of potential projects are: library or market tote, pillow case, sleep mask, bedside stuff keeper, notebook and pencil holder, bean bag stuffies, bowl cozies, apron, quilt block hot pads and many more options I am exploring!
Journalism	Who? What? When? Where? Journalism provides us with the answers to these questions for the events that affect our lives. In this course, students will learn how to gather information, organize ideas, format stories for different forms of news media, and edit their stories for publication. The course will also examine the historical development of journalism and the role of journalism in society.
Journalism	Throughout modern history, people have depended on the mass media to spread the word about events and people of interest to the general public. This course will introduce students to the exciting world of print, radio, online and broadcast media through a variety of projects and in class discussions. Law, ethics, and the history of journalism will be covered as well as lessons in critical thinking and examination of media to understand the differences between Journalism and Propaganda. The students will develop skills in the complementary disciplines of reporting, writing, editing, photography, advertising, design, management and teamwork. In addition, students will have the opportunity to use computer-aided publishing tools and other hands-on production tools as well as modern photo techniques while they work on projects for the class. Some out of class time may be required for Field Trips or interviewing/collecting information for their projects.
Language Arts 600	This course provides a strong foundation in grammar and the writing process. It emphasizes simple but useful composition and language mechanics strategies with multiple opportunities for modeling practical, real-world writing situations that will enable students to improve their written communication skills quickly. Through a variety of grade-appropriate reading selections, students develop a clear understanding of key literary genres and their distinguishing characteristics.
Language Arts 700	English 7 Integrates the study of writing and literature through the examination of a variety of genres. Students identify the elements of composition in the reading selections to understand their function and effect on the reader. Practice is provided in narrative and expository writing. Topics include comparison and contrast, persuasion, and cause and effect essays, as well as descriptive and figurative language. Lessons are supplemented with vocabulary development, grammar, and syntax exercises, along with an introduction to verbal phrases and research tools.
Language Arts 800	Extends the skills developed in English 7 through detailed study of parts of sentences and paragraphs to understand their importance to good writing. Students also acquire study skills such as time management and improved test-taking strategies. Other topics include punctuation, word choice, syntax, varying of sentence structure, subordination and coordination, detail and elaboration, effective use of reference materials, and proofreading.
Look What I Can Do	Try something new, this is an important trait of a lifelong learner. Students will research, plan, prepare, and add a new skill set to their tool box of life. Students will journal the process of what it takes to tackle something new. Kids are wired for this, "Mom and Dad, Look what I can do!"
Martial Arts I	This class teaches practical self defense. It draws on several different martial arts disciplines and is taught in a safe and supervised environment. Students learn when and where to use their new self defense skills. Skills include punches, kicks, blocks, tumbles, rolls and throws. Each class is scaled to the abilities level of the students. Progress is tested as students earn stripes and belts moving forward.
Martial Arts II	This class teaches practical self defense. It draws on several different martial arts disciplines and is taught in a safe and supervised environment. Students learn when and where to use their new self defense skills. Skills include punches, kicks, blocks, tumbles, rolls and throws. Each class is scaled to the abilities level of the students. Progress is tested as students earn stripes and belts moving forward.
Martial Arts III	This class teaches practical self defense. It draws on several different martial arts disciplines and is taught in a safe and supervised environment. Students learn when and where to use their new self defense skills. Skills include punches, kicks, blocks, tumbles, rolls and throws. Each class is scaled to the abilities level of the students. Progress is tested as students earn stripes and belts moving forward.
Math 600	This semester-long middle school course will provide students with a deep understanding and mastery of the objectives that will prepare them for algebra. It is aligned to Common Core State Standards, and is based on best practices in the teaching of mathematics and the disciplines of STEM learning. Students will develop 21st century skills as they master ratios and proportional relationships; the number system; and number visualization.
Math 700	Math 7 builds on material learned in earlier grades, including fractions, decimals, and percentages and introduces students to concepts they will continue to use throughout their study of mathematics. Among these are surface area, volume, and probability. Real-world applications facilitate understanding, and students are provided multiple opportunities to master these skills through practice problems within lessons, homework drills, and graded assignments.
Math 800	This course is designed to enable all students at the middle school level to develop a deep understanding of math objectives and leaves students ready for algebra. The first semester covers objectives in transformations, linear equations, systems of equations, and functions. The second semester focuses on scientific notation, roots, the Pythagorean Theorem and volume, and statistics and probability. The course is based on the Common Core State Standards Initiative and on a modern understanding of student learning in mathematics.
Minecraft	Using lesson plans from education resources, students will spend time in the world of Minecraft collaborating on environmental projects, practicing coding, and exploring various political and economic systems. Time for free creative play will happen at the end of class time.
Music	Students will practice learning a new musical instrument. Students may work with an instructor or self teach for this class. Students will select appropriate materials to progress from learning notes, to scales, to songs. Students will keep a journal of their progress.
Music Lessons	In depth instruction of an instrument. Student will be able to read music notation, demonstrate musicality, and understand music theory concepts. Student will be expected to practice outside of the scheduled lesson time. Student will be expected to provide their own instrument, music literature, and all other necessary materials.
Nature & Survival II	Break through the wall of green, you too can become a naturalist! Most of us are really tourists in our own backyards. This class will guide students how to learn and understand the landscape around them through observation, journaling, and nature based play.
Passion Project	Students are assisted by a mentor to pursue something they have always wanted to do. No challenge is to great, no goal too lofty. Students will step by step form a plan on how they will achieve their goal then start taking the actions steps to actually get there. The students path and progress will be captured in a journal and reflection format.
PE Sports	Keep that body in shape. Students will plan and follow through on their physical health goals for the year. Students will learn the basic vocabulary and concepts of how and why routine workouts are important to overall health. Students might learn a new sport or skill as part of their PE class for the year. Progress and achievements will be recorded in a learning journal.
Performing Arts	Students will participate in a specific performance art. Students might find a class and/or learn and practice at home. Students will learn about the performance arts in general and apply that knowledge to the specific activity they have chosen. Students might attend a play while the practice their role in a community performance. Students have the opportunity to participate in the school talent show at the end of the year. Progress and learning will be recorded in a learning journal.
Photography	This class will explore the basic mechanical techniques and artistic methods involved in creating photographs. Using a combination of In-Class Workshops, Lecture, Guest Speakers, and Field Trips, students will learn how to use a camera, concepts of composition, lighting use and management, digital editing, and portfolio creation. Using these techniques students will be encouraged to create a photo project based on their personal passions and interests in the art. A small amount of time outside of class spent watching short tutorials and researching images of techniques will be encouraged, to allow for more focused time using cameras and editing software during class. Students are encouraged to have their own cameras, however they will have access to a basic DSLR at the Center and during field trips.
Photography and Film	Students will learn how to record, edit, and produce digital photos and videos. Student will use a variety of digital media to create a piece to share. Students will use how operate digital cameras, import images and video into an editing software, and produce a final project. Students will document their learning and share their final projects in a learning journal.
Photography: Drawing with Light	“A picture is worth a thousand words.” Photographs play an important role in our world today. We photograph to preserve memories, document events, and create artistic works. This course introduces students to the basics of photography, including camera functions and photo composition. Students will learn what it takes to create a good photograph and how to improve photographs of animals, people, and vacations. They will also begin working with their photographs using photo-editing software. Through a variety of assigned projects, students will engage their creativity by photographing a range of subjects and learning to see the world through the lens of their cameras.
Project Based Learning	In this elective, students have the time to tackle larger projects for themselves, our center, and our community. An integrative learning approach incorporates project management skills, organization, and communication skills.
Robotics II	Students utilize the powerful Lego Mindstorms EV3 robotics platform along with the versatility of Lego to build robots to learn the basics of automation, programming, and mechanical design. Each project we do builds up starting with basic building and learning how to program the robots followed by learning how to build effectively and robustly with the Lego pieces to build complex mechanisms. Lessons introduce controlling motors to rotate wheels for movement and to operate a robotic arm, installing and incorporating sensors into robotic builds to collect sensory input: data for sound, distance, sight and touch.
Science 600	"This inquiry- and lab-based course is designed to support modern science curriculum and teaching practices. It robustly meets NGSS learning standards associated with middle school Earth and space science. Content topics include Earth and space systems and interactions, the history of the Earth, the Earth’s systems, weather and climate, climate change, and human impacts on the Earth. Each lesson includes one or more inquiry-based activities that can be performed online within the context of the lesson. In addition, the course includes a significant number of hands-on lab activities. Approximately 40% of student time in this course is devoted to true lab experiences, as defined by the National Research Council (2006, p. 3). Lab materials note: All hands-on labs employ relatively-common household materials. Please refer to the Student Syllabus or Teacher’s Guide for details on lab materials."

Science 700	This inquiry- and lab-based course is designed to support modern science curriculum and teaching practices. It robustly meets NGSS learning standards associated with a seventh-grade integrated science course (NGSS Appendix K: Modified Conceptual Progression Model, p. 19), focusing on cells, the life cycle, nutrition, chemical reactions, force fields, and energy. Content topics include cells and human body systems, the life cycle, nutrition and energy, chemical reactions, force fields, and energy. Each lesson includes one or more inquiry-based activities that can be performed online within the context of the lesson. In addition, the course includes a significant number of hands-on lab activities. Approximately 40% of student time in this course is devoted to true lab experiences, as defined by the National Research Council (2006, p. 3). Lab materials note: All hands-on labs employ relatively-common household materials. Please refer to the Student Syllabus or Teacher's Guide for details on lab materials.
Science 800	This inquiry- and lab-based course is designed to support modern science curriculum and teaching practices. It robustly meets NGSS learning standards associated with an eighth-grade integrated science course (NGSS Appendix K: Modified Conceptual Progression Model, p. 19). Content topics include genes and adaptations, evolution, energy and the Earth, the Earth's changing climate, waves, and technology and human impacts on the Earth. Each lesson includes one or more inquiry-based activities that can be performed online within the context of the lesson. In addition, the course includes a significant number of hands-on lab activities. Approximately 40% of student time in this course is devoted to true lab experiences, as defined by the National Research Council (2006, p. 3). Lab materials note: All hands-on labs employ relatively-common household materials. Please refer to the Student Syllabus or Teacher's Guide for details on lab materials.
Sewing Apparel	Students will venture beyond the simplest of clothing patterns. They will use patterns to make more complex skirts, tops, and dresses. Fabric types, selection, and techniques for working with various fabrics will be covered. Students will increase their mastery of the sewing machine and learn to adjust patterns to create a personalized fit. Permission of instructor is required to take this class.
Social Studies 600	In an increasingly interconnected world, equipping students to develop a better understanding of our global neighbors is critical to ensuring that they are college and career ready. These semester-long courses empower students to increase their knowledge of the world in which they live and how its diverse geographies shape the international community. Semester A units begin with an overview of the physical world and the tools necessary to exploring it effectively. Subsequent units survey each continent and its physical characteristics and engage students and encourage them to develop a global perspective.
Social Studies 700	In Middle School World History, learners will study major historical world events from early human societies through to the present day. Multimedia tools including custom videos as well as videos from the BBC, custom maps, and interactive timelines will help engage learners as they complete this year-long course. They will explore the development of early humans and early civilizations. They will be introduced to the origins of major world religions, such as Hinduism and Buddhism. Also, learners will study the medieval period. Historical thinking and geography skills will be taught and utilized throughout the course.
Social Studies 800	In Middle School U.S. History, learners will explore historical American events with the help of innovative videos, timelines, and interactive maps and images. The course covers colonial America through the Reconstruction period. Learners will develop historical thinking and geography skills, which they will use throughout the course to heighten their understanding of the material. Specific topics of study include the U.S. Constitution, the administrations of George Washington and John Adams, the War of 1812, and the Civil War.
Sports Class	Get moving with Sports class! Come ice skating, tubing, and have fun gym at the L'Anse Township hall. Enrolled students will also receive swim passes to work on being competent swimmers.
Storytime	The art of the story is one of the worlds greatest teachers. Students will engage in story to learn about the world around. Students will read, write, and listen to stories from around the world. The stories and teaching will be recorded in a student learning journal.
Survival 101	Survival 101 is an introductory course that will teach the basics of survival in various wilderness scenarios. The class will use a combination of classroom lectures, hands on skill development, and field trips. Topics will include shelter building, basic first aid, navigation, signaling for help, predicting inclement weather based on nature signals, water purification and safety, basic wild edibles, fire starting, and packing/preparation for excursions.
Survival Skills	Wilderness survival, how to survive when things go wrong. Students will practice on their own to be prepared if an accident or unfortunate situation arises. This is a great way to learn problem solving and preparedness. Students will learn to prioritize survival tasks as they learn various way to obtain shelter, food, water, fire, and signal for help. The first priority is alway preparedness and avoidance of dangerous situations where survival skill become necessary! Students learning and skills will be recorded in a learning journal.
Swimming	Non swimmers- Swimming is an essential life skill, especially here in the Keweenaw. Games and play are used to introduce swimming skills, comfort in the water, and endurance. Let's get the floaties and life jackets off, faces in the water, floating, doggie paddle, freestyle, and jumping off the side, with goal to get kids comfortable in the water and build the strength to swim a length of the pool using a variety of strokes. Advanced Swimming- Students should be able to swim 2 laps of the pool without stopping. Building on students current swimming ability, new strokes are introduced, games are played to build endurance, and basic lifesaving skills are taught. Freestyle, breaststroke, backstroke, butterfly, dives from the side and the diving board, retrieving dive rings from the deep end, and games to build endurance is a typical day in class. By the end of class students should be proficient in at least 6 strokes, diving, basic lifesaving, and will be able to swim 6 laps of the pool without stopping. Intermediate Swimming- Swimmers that do not need floaties or life jackets, but cannot swim 2 laps of the pool without stopping or are swimming but always close to the wall for comfort. Building on students current swimming ability, new strokes are introduced, games are played to build endurance, and basic lifesaving skills are taught. Freestyle, breaststroke, backstroke, dives from the side, retrieving dive rings from the lap pool, and games to build endurance is a typical day in class. By the end of class students should be proficient in at least 4 strokes, diving, basic lifesaving, and will be able to swim 2 laps of the pool without stopping.
Tinker Lab	Let your child's inner STEAM spirit soar high with this class. Materials and challenges will be presented for open ended construction and hands-on experimentation. Geared towards ages 10 and under, this class will get your kids thinking outside the box as they tinker away on projects emphasizing designing, building, concocting, and discovering
What's Up In My Community?	Students will engage in learning activities and events such as theatre, museums , adventure activities, and local events. Our communities have so much to offer our students, so they will plan and engage in learning activities that are offered throughout the school year. Students will keep a learning journal of activities and what the learned in their chosen activities.
Winterize Me	Winter is half the year in the Copper Country. Students will learn and participate in winter sports. Students may learn snowshoeing, downhill skiing, cross country skiing, ice skating, fat biking, or winter camping. Students will learn about the equipment needed, safety requirements, and safe locations to practice their winter sports. Students will document their progression in their winter sports.