Summer of Innovation 2024

Course Guide



Sponsored by:













Science & Discovery Center





What is the Summer of Innovation?

Several organizations from across the Southern Tier have united to offer unique learning opportunities for children and young adults during the summer months. These organizations have a common goal of extending the traditional school year into a third summer semester. Our offerings have another purpose as well – to provide students with STEM (Science, Technology, Engineering and Mathematics) skills that are essential to their success in the future.

Partnering organizations include:

- Corning Community College www.corning-cc.edu/student-life/steahm.php
- GST BOCES www.gstboces.org
- Notre Dame High School www.notredamehighschool.com
- Science & Discovery Center www.sciencediscoverycenter.org
- Tanglewood Nature Center and Museum www.tanglewoodnaturecenter.com
- Wings of Eagles Discovery Center www.wingsofeagles.com

How do I register my child for these courses?

To register your child for any of the courses listed in this brochure, please go to www.gstboces.org and click on the link to the agency offering the course your child is interested in. From there, you will be able to access the registration information you need.

Enrollment is limited; please register early!

When registering for courses, please use the grade your child will enter in the fall, unless otherwise indicated.

What is the cost of these programs?

The cost of these academies varies. Please see the course description for information on price.

Are scholarships available?

Scholarships are available from the following partners:

- Corning Community College
- Science & Discovery Center
- Tanglewood Nature Center and Museum
- Wings of Eagles Discovery Center
- Some scholarships are available to Elmira City School District students. Please contact Jennifer Biggs at (607) 735-3580.

Is transportation available?

Transportation is available for Elmira City School District students. Please contact Jennifer Biggs at (607) 735-3580 for more information.



Join us for summer fun and learning at a variety of sites including:

@Corning Community College

1 Academic Drive, Corning

Full STEAHM Ahead! (Girls, Grades 4-5)

July 29-August 2 and August 5-9, 8:30 AM-4:00 PM,

Commons Building

Cost \$100, Scholarships available

Limited transportation available

The Full STEAHM Ahead Summer Workshop is a week-long program for girls that focuses on Science, Technology, Engineering, Arts, Health and Math education. Approximately 40 middle school girls from Chemung, Schuyler and Steuben counties will be selected based on essay applications to participate in this low-cost workshop. Girls will: learn how to code with Ozobots, creative coding robots; explore the night sky at CCC's Digital Dome; write and perform a drama production; develop math theory using supplies like pine cones; paint rocks to learn math sequences; learn to meditate and practice yoga for stress release; develop an engineering project that they can wear home and lots more. Also hear from women working locally in STEM careers to design your own career. Past participants age 13 and up may apply for our junior chaperone program.

For more information: www.corning-cc.edu/student-life/steahm.php

@GST BOCES Bush Education Center

459 Philo Road, Elmira

Please note: There is no charge for courses at the Bush Education Center.

Online registration information for classes at the Bush, Coopers and Wildwood Education Centers and the STEM Academy can be found at www.gstboces.org. Please click on the Summer of Innovation banner at the top of the page. For more information, please contact Tammy Clark at (607) 281-3152.

Animal Science: The Barnyard Bunch (Grades 7-9) July 15-19 or July 22-26, 9:00 AM-12:00 PM

Explore the fascinating world of animals, from the tiniest insect to the majestic alpaca. This immersive program offers a fun and hands-on learning experience for students who are passionate about animals. Embark on nature hikes where you'll learn about animal habitats and explore the diverse life teeming in our local environment. Put your detective skills to the test by collecting and analyzing pond water samples and uncovering the secrets hidden within owl pellets. Spend quality time with our friendly classroom and barn animals, learning about their care, behavior and unique needs. Get hands-on experience using specialized equipment to monitor their health and well-being. Throughout the program, you'll gain valuable scientific skills while using microscopes to analyze samples, scales and measuring tapes to monitor animal health, and dissecting tools and identification keys for owl pellet dissection. Much of our time will be spent outside or in the company of animals, so closed-toed shoes and clothes that can get dirty are a must!

Auto Body: Custom Painting and Graphics (Grades 7-10) July 8-12, 9:00 AM-1:00 PM

Students will learn custom painting techniques used in the industry. They will achieve this using airbrushes, paint spray guns, stencils and free-hand techniques. They will layout and complete a pre-determined project. Then, they will be able to come up with their own design for a panel. Students also will learn about hydro graphics and have the opportunity to hydro dip a pre-determined project

Auto Technology: Pit Crew Challenge (Grades 7-10) July 8-12, 8:00 AM-1:00 PM

If you're an auto racing fan, this class is for you. You'll begin the week by creating a team with your classmates. You'll learn to safely and correctly operate an automotive lift, impact and tire machine and to identify automotive fluids. Teams will participate in a pit row competition. Students should bring a packed lunch.

Auto Technology: Get Charged Up (Grades 7-10)July 8-12, 8:00 AM-12:00 PM or August 12-16, 9:00 AM-1:00 PM

Participants will learn how to retrieve and translate OBD I and II diagnostic codes with industry-leading scan tools and diagnose and test various electrical circuits using test lights and digital multimeter. Next you'll construct operating electrical circuits, discover how an automobile engine functions and discuss and apply OHM's Law in an automotive setting. Participants also will learn to correctly and safely use pneumatic and electrical power tools.

Building Sheroes (Girls, Grades 6-8) July 8-12, 8:30 AM-12:30 PM

The middle school experience is complex for young girls and filled with a variety of pressures from peers, school, society and social media. Through activities and discussions that promote self-confidence, listening and communication skills, healthy relationships and foundations of personal health, girls can learn a strong sense of self-empowerment, build their emotional intelligence and learn how to advocate for themselves and their peers.

Culinary Arts & Career Explorations: Bake Shop (Grades 7-8) July 15-19, 9:00 AM-12:00 PM

Students will create their own bake shop. They will get to name it and make a simple logo to put on an apron. They will learn to make scones and cookies and learn how to decorate sugar cookies. Upon completion of the academy, students will be able to demonstrate how different ingredients might go better together, describe different mixing methods, demonstrate different decorating techniques and describe why having a brand is important.

CPR/First Aid (Students must be at least 16 years old) July 23, 9:00 AM-12:00 PM

Participants will complete an American Heart Association HeartSaver CPR and First Aid class. Skills gained will focus on Adult CPR, Child CPR, Infant CPR, AED, Choking, First Aid, Bandaging, Epi-Pens and Splinting. The class will incorporate hands-on skills and team dynamics. Students will progress from learning basic skills, to then being presented scenarios where they must as a team decide what steps should be taken and how best to help their patients. Students will leave proficient in CPR skills that can be used in their school and community settings when necessary.



Wilderness Exploration Studies (Grades 8-10)

July 8-19, 9:00 AM-2:00 PM

July 22-August 2, 9:00 AM-2:00 PM

Students will engage in a variety of hands-on activities, including crafting projects from wood such as bird houses, bat houses, duck houses, and pen making. Additionally, they will receive instruction in proper orienteering techniques and learn to identify different fish species. Practical application of fish identification skills will occur during fishing sessions at BOCES ponds. Through lathe work, students will create pens while emphasizing safety protocols for equipment operation. Furthermore, the curriculum encompasses lessons on conservation and animal science. Students will also develop proficiency in map reading and compass navigation to enhance their outdoor navigation skills. Please bring a packed lunch each day.

@GST BOCES Coopers Education Center

9579 Vocational Drive, Painted Post

Please note: There is no charge for courses at the Coopers Education Center.

Animal Science: Animal Careers (Grades 7-10) July 22-26, 9:00 AM-1:00 PM

Students will be exposed to different career clusters in the agriculture and animal science field. Students will speculate what specific careers entail and then learn about daily life in that occupation. Attendees will get hands-on experience working with multiple small animal species daily. After learning about possible careers, students will be able to meet professionals during an organized field trip to local businesses including a farm and vet office. Lunch will be provided to students each day.

Animal Science: Barn Quilts (Grades 7-10)

August 19-23, 9:00 AM-1:00 PM

Students will learn about quilt squares and barn quilts in history. Students will explore the significance of quilt blocks and their connection to the Underground Railroad. Attendees will then choose their own quilt block design to reconstruct on a piece of wood, rather than fabric. Knowledge gained from learning about the color wheel and complimentary colors will aid students in painting their one-of-a-kind wooden quilt blocks. Lunch for students will be provided daily. Students will get to keep the masterpieces they create and can display them proudly.

Animal Science: Dairy is Whey Cool! (Grades 7-10)

August 5- 9, 9:00 AM-1:00 PM

Milk and its products go way beyond cheese and butter. In fact, dairy products are used in more than just food. Students enrolled in this program will be able to explore the many uses of milk and dairy products. They will also get to see first-hand how milk is produced. Some activities include making milk-based soap and cheese, as well as touring a local dairy farm. Students will get to try their own hand at milking an animal and distinguishing taste differences in multiple species' milk (i.e. goat, cow, sheep). Lunch will be provided for students.



Auto Technology: Let's Go Racing (Grades 7-10) June 27-July 2, 9:00 AM-12:00 PM

Students will operate our tire machines and learn to operate our two post lifts. Students will be introduced to power and hand tools, basic cutting tools and possibly some light welding. We hope to do some single cylinder small engine work and potentially do some work on a junior go cart, with the possibility of taking it to Seneca Grand Prix go kart track and racing it. We also will be building valve cover racers and students will compete against each other on our track with the vehicles they build.

Cosmetology: Salon Chic Summer Academy (Grades 7-10) July 1-3, 9:00-11:00 AM

Do you enjoy making people feel better about themselves? Come to GST BOCES Cosmetology Summer Academy at the Coopers Campus. Each student will learn the importance of hygiene and sanitation, braiding, manicuring, pedicuring and plain facials. Summer of Innovation students will get to work one-on-one with senior students from the Cosmetology program.

Culinary Arts: Tasty Tapas Fiesta (Grades 7-10) July 8-12, 9:00 AM-1:00 PM

Get ready to embark on a flavorful adventure at our Tasty Tapas Fiesta summer camp! This week-long culinary camp will transport you to the vibrant world of Spanish cuisine. Immerse yourself in the art of creating and savoring delicious tapas, small plates bursting with bold flavors. From traditional favorites like Tortilla de Patatas and Albondigas to innovative creations like Chorizo Arancini and Crema Catalana, you will learn the techniques and secrets behind crafting these mouthwatering bites. Chef Campbell will guide you through hands-on cooking lessons, teaching you the essence of Spanish cooking while fostering teamwork and culinary creativity. Join us for an unforgettable week filled with culinary delights and a taste of Spain.

Culinary Arts: Sweet Sensations Culinary Adventure (Grades 7-10) July 15-19, 9:00 AM-1:00 PM

Indulge your taste buds and embark on a delectable journey at our Sweet Sensations Culinary Adventure Camp! This week-long culinary camp will immerse you in the art of creating irresistible sweet treats. From mastering the art of crafting decadent chocolate lava cakes to perfecting the delicate balance of flavors in a classic crème brulee, you'll learn the secrets behind creating mouthwatering desserts that are sure to impress. With a focus on hands-on learning, Chef Campbell will guide you through each step, teaching you essential techniques and sharing insider tips. Join us for an unforgettable culinary experience filled with creativity, teamwork and, of course, plenty of sweet sensations!

Culinary Arts: Snack Smart Culinary Adventure (Grades 7-10) July 22-26, 9:00 AM-1:00 PM

Join us for an exciting and delicious adventure at our Snack Smart Culinary Academy! This camp focuses on promoting healthy snacking habits through hands-on cooking experiences. Students will learn how to create a variety of nutritious and tasty snacks using fresh ingredients. From colorful fruit smoothie bowls to homemade energy bites and veggie roll-ups, our young chefs will develop essential culinary skills while discovering the joy of wholesome snacking. Led by Chef Campbell, this class provides a fun and interactive environment where students can explore their creativity and develop a lifelong love for cooking and healthy eating. Don't miss out on this amazing opportunity to empower your child with the knowledge and skills to make smart snack choices!



Digital Media Arts: Creative Ventures (Grades 7-10) July 8-12, 9:00 AM-2:00 PM

Show your creativity and learn a variety of hands-on applications of Digital Media Arts. Attending students will learn the basics of Adobe Photoshop and keyframe animations through use of Adobe Premiere. They will be experimenting with nature and green screen photography while exploring many additional aspects of Digital Media Arts. They can then use those skills to create and take-home customized items, such as a t-shirt, coffee mug, possibly buttons or other available media. Supplies are contingent upon material available. Please bring a brown-bag lunch each day.

Digital Media Arts: Mastering Photography (Grades 7-10) July 15-19, 9:00 AM-2:00 PM

Taking pictures can be fun and innovative. This class will explore many aspects of photography. It will give students a sampling of various photographic styles, effects and techniques, including nature photography, still-life photography, portrait photography, green screen effects and trick photography, including reflection, long exposure and other techniques that can leave the viewer amazed. Please bring a brown-bag lunch each day.

Digital Media Arts: Sound Scapes (Grades 7-10) July 29-August 2, 9:00 AM-2:00 PM

Have you ever wanted to star in your own podcast or host a radio show, or wondered how your favorite animated characters are voiced? Sound is an integral, but often overlooked component in much of our popular media. Students of this workshop will learn to use various sound-capturing equipment, and how to use software to manipulate that sound to produce sound effects, music and set a scene or a mood using sound alone. Please bring a brown-bag lunch each day.

Digital Media Arts: Stop Motion Animation Film (Grades 7-10) August 5-9, 9:00 AM-2:00 PM

Wallace and Gromit, Jack Skellington, James and his giant peach — all of these have something in common: they are brought to life via the magic of stop motion animation. During this workshop, students will learn about how some of their favorite stop motion films are created and will flex their own creative writing muscles to write their own 30 second animation. They will learn the basics of photography, set design, audio production and Adobe Premiere to assemble their own mini movie. At the end of the class, students will be able to take home a copy of their film, as well as a flip book of their images, if time allows. Please bring a brown-bag lunch each day.

Digital Media Arts: Video Game Design (Grades 7-10) August 19-23, 9:00 AM-2:00 PM

Video games are among the fastest-growing forms of entertainment of the age and are as varied in scope and design as those who play them. During this workshop, we will discuss the history and influence of games on our pop culture. Students will then have the opportunity to delve into game design firsthand, learning the process of game development and using RPGmaker to create their own video game levels. At the end of the class, students will be able to take their finished game home, as well as the save files to continue development on their own, if they wish. Please bring a brown-bag lunch each day.



@GST BOCES STEM Academy

STEM Academy at Corning Community College, Steuben Bldg. 2nd Floor

Please note: There is no charge for courses at the STEM Academy.

Create and Design a Graphic Novel with Canva (Grades 7-10) July 15-19, 9:00 AM-12:00 PM

Love to read graphic novels? Have you ever wanted to create your own? Participants will explore different graphic novels and identify their conventions through inquiry and observation. Once explored, participants will create and organize their own story arcs and develop their graphic novel design. There will be feedback protocol sessions where participants will look at each other's work and learn how to give and receive critical feedback. By the end of the week, participants will have at least the first chapter of their graphic novel and a story board to continue their work. Participants will publish their final product to share with others.

@GST BOCES Wildwood Education Center

1126 Bald Hill Road, Hornell

Please note: There is no charge for courses at the Wildwood Education Center.

Cisco Networking Academy: Computer & Network Technology (Grades 7-10)

July 15-19, 8:00 AM - 1:00 PM

Welcome to this exciting one-week summer academy designed especially for 7th-10th graders who are eager to dive into the world of computer technology! No prior experience required – perfect for students interested in technology careers such as PC repair, network administration, programming or cybersecurity.

Day one: Ever wanted to build a computer from scratch? Today's your chance! Dive into the world of computer hardware as we roll up our sleeves and learn how to assemble a computer piece by piece. From motherboards to graphics cards, you'll become a pro at putting it all together.

Day two: Time to delve into the world of operating systems. We'll guide you through the installation process of the Windows Operating System, teaching you all the tips and tricks along the way. Explore the control panel and settings that make Windows work. By the end of the day, you'll be navigating through Windows like a pro! Day three: Get ready to connect the dots as we explore the fundamentals of networking! Create your own CAT5e network cable, then coordinate with classmates to link laptops together. By the end of the day, you'll be sharing files and connecting applications to test your network.

Day four: Take your network to the air as we dive into the world of wireless networking! From fundamentals to advanced security, we'll teach you the best practices to keep your WiFi safe at home or in an office.

Day five: Today, we're diving into the world of servers. Learn all about server hardware and virtualization and discover how to measure and optimize server performance. By the end of the day, you'll be well-versed in the backbone of modern technology.



Intro to Cosmetology (Grades 7-10)

July 1, 2, 3, 5, 9:00-11:30 AM

Each student will learn the importance of hygiene and sanitation, manicuring, pedicuring, basic color theory, color application, blow dry techniques and thermal hairstyling. The Summer of Innovation students will collaborate and work one-on-one with our senior students.

Culinary Arts: Boujee Breakfast (Grades 7-10) August 12-16, 8:00 AM-12:00 PM

Rise and shine with our breakfast foods class, where students will discover the art of creating delicious morning meals to start the day off right. From classic favorites like fluffy pancakes and crispy home fries to the more worldly options such as shirred eggs and latkes, this course will explore a variety of breakfast dishes to suit every palate. Participants will learn essential cooking techniques, experiment with different ingredients and uncover the importance of a balanced breakfast. Whether you're a breakfast enthusiast or looking to expand your culinary skills, this class promises to inspire creativity in the kitchen and elevate your breakfast game. Join us for a mouthwatering exploration of breakfast foods that will leave you energized and ready to tackle the day ahead!

Culinary Arts: Spice It Up (Grades 7-10) July 15-19, 8:00 AM-12:00 PM

In this engaging class, students will embark on a flavorful journey exploring the world of herbs and spices. From understanding the differences between herbs and spices to learning about their unique tastes and aromas, this course will delve into the diverse ways these ingredients enhance culinary creations. Students will discover the history behind popular herbs and spices, explore their medicinal properties and experiment with incorporating them into various dishes. By the end of the course, participants will not only have expanded their culinary knowledge, but also developed a deeper appreciation for the role herbs and spices play in creating delicious and aromatic meals. Join us on this fragrant and educational exploration of herbs and spices!

@Notre Dame High School

1400 Maple Avenue, Elmira

Looking for something fun for your kids to do this summer? Check out the wide variety of summer academies being offered at ND! All registrations are being taken online at https://tinyurl.com/NDHSSummer2024. Checks should be made payable to Notre Dame High School and note Summer Camp on the memo line. Mail your payment to: Attn: Michelle Barkley, Notre Dame High School, 1400 Maple Avenue, Elmira, New York 14904. All camps are filled on a first come, first served basis. Registration for the camp is not complete until we have received payment. If you prefer to drop your payment off at Notre Dame High School, you may drop off your payment to the Main Office between 8:00 AM and 3:15 PM Monday through Friday. Please note, students registering for a morning and afternoon session may pack a lunch and eat in the cafeteria or outdoors, weather permitting. Further details will be sent via letter to registrants.



July 1 (one day only), 8:00 AM-3:30 PM

What if I told you, that with two questions, I could tell you all about your personality, strengths, weaknesses and motivators? As a Certified Human Behavior Consultant in DISC, I can! By the end of this one-day session, you'll learn more about yourself, how you interact with others, how to build stronger interpersonal relationships, how to be a better team member and even gather some insights into what career paths suit you best. You'll spend the morning learning all about DISC, discovering what your style is, and learning about each of the four styles including their strengths, weaknesses and motivators. In the afternoon portion, you'll be broken up into different groups to do fun activities.

Fee: \$50

Scrapbooking Memories (Grades 4-8)

July 8-12, 8:00-11:30 AM

Scrapbooks can act as time capsules. Years from now, you can pull one out and remember the past and the "old you." During this camp, we'll scrapbook your memories and past with your future goals and dreams. We'll capture moments with friends and family, adventures, what you currently like and your current interests, and what you hope your future will look like. Have fun! Be creative! And make something that'll last you forever!

Fee: \$100

Get Outside & Play! (Grades 5-8)

July 8-12, 12:00-3:30 PM

This camp is full of fresh air and sunshine! Spend a week outdoors playing different outdoor games such as Croquet, Pickleball, Foursquare, Ladder ball, Cornhole, CanJam, Left Right Center, Scavenger hunt and more! When it is time to take a break and catch our breath we will head inside for a snack and a board game.

Fee: \$100

Cooking 101 (Grades 4-8)

July 22-26, 8:00-11:30 AM

Do you enjoy watching cooking shows? Wish you could cook? Come join us for a week full of creating tasty recipes from all over the globe. The week will end in a "chopped" style competition showcasing the skills you have learned.

Fee: \$135

Just Desserts! (Grades 4-8)

July 22-26, 12:00-3:30 PM

Come for a fun filled week of making tasty treats. Learn the basics behind baking by creating new desserts each day. Participants will explore making everything from brownies and cupcakes to crème brulé. Learn proper measuring techniques as well as the importance of following a recipe.

Fee: \$135



Sweet Feet & Nature Photography (Grades 6 - 9) July 22-26, 8:00 AM-3:30 PM

Do you like being outdoors, hiking in the region's state parks and nature trails? Would you like to learn how to take nature photos, capturing light, landscape and perspective? Do you like ice cream? Notre Dame SWEET FEET full-day camp is for YOU! Open to rising 6th through 9th grade students. Students will be driven to area hiking destinations via school bus with a NYS-certified bus driver (and hiking enthusiast) and spend the day hiking and learning photography out on the trails. Campers should be prepared with water bottles, sensible shoes (no Crocs or flip flops) and a packed lunch. If the opportunity arises, campers may swim at NYS parks if lifeguards are available. Upon the return trip to ND each afternoon, campers will be treated to ice cream at area scoop shoppes and stands.

Fee: \$250

Outdoor Adventures! (Grades 6 - 8)

Session 1: July 29-August 2, 12:00-3:30 PM

Session 2: August 5-9, 12:00-3:30 PM

Come enjoy the outdoors with us as we travel to find local creeks along with trails to walk down, and explore. Enjoy the peacefulness of our local waterways and what they have to offer along with some beautiful walking trails. Activities on our walks will center around discovering the wonderful nature all around us. If you enjoy being in nature then you will love these activities. Water shoes are a must for these adventures!

Fee: \$150

The Summer Seminar on the Performing Arts (Grades 4-8) July 29-August 9, 8:00 AM-3:30 PM

This two-week musical theater day camp explores all three singing, acting and dancing genres by working toward an end-of-session show. The final performance will entertain family and friends with skits, musical numbers and dances all relating to that summer's specific theme. All students are guaranteed to be in at least three numbers. The Summer Seminar will be taught by Joyce Baldwin, who has more than 30 years of teaching experience in the fine arts. She has performed professionally alongside such names as Frankie Avalon, Eric Estrada and Tony Award winners Lindsay Mendez and J Robert Spencer. She has graced the stages of venues across the globe, including Radio City Music Hall, all five Fox Theatres, Deutsches National Theater and the Danny Kaye Theater. Her students have gone on to perform on Broadway, national tours, Netflix, Pilobilus and other professional dance companies. Joyce ran the SSPA in Elmira for 20 years and for five years in Massachusetts.

Fee: \$350



Science & Discovery Center

- Please, go to www.sciencediscoverycenter.org to register.
- Camp costs vary.
- Extended day care until 4pm is available for an additional fee.
- Students registering for both the morning and full day sessions at Erwin Valley Elementary School will be provided with a free lunch provided by USDA Summer Food Service Program – Administered by CPP Area Schools Food Service Department.
- Students registering for both the morning and full day session at the Arnot Mall and Spencer Crest Nature Center locations will need to pack a lunch each day.
- All camp registrations are on a first come, first served basis.
- Registration is not complete until all registration fees are processed.
- Space is limited. Register early.
- A limited number of financial camperships are available to families in need. Applications are available on our website.
- For the most up-to-date information, like and follow us on Facebook at SDC0112.

Camp Curiosity (Grades K-1)

July 1-3, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Erwin Valley School, Painted Post

Why do balloons sometimes sink, and sometimes float? What makes seaweed so slimy? And what, exactly, is oobleck? Join us for three fun-filled days exploring the answers to these questions, and many more! Campers will get a little messy, and dive in to the exciting world of science!

Camp Innovation (Grades 1-3)

July 8-12, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Erwin Valley School, Painted Post

Explore, create, and discover during this exciting week of all things science! Our summer science sampler camp allows students to experience a different science topic every day. Campers will explore physics with marble mazes, discover chemical reactions with elephant toothpaste, understand the engineering design process while building looming towers, and so much more! From creating explosive chemical reactions to exploring how things move with gliders and cars to understanding why animals behave the way they do – every day brings something new!



Mix it Up! (Grades 4-6)

July 15-19, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Erwin Valley School, Painted Post

Roll up your sleeves and come make a mess with us! This week campers will get a little messy while experimenting with chemical reactions and so much more. Campers will explore bubbling chemical reactions, colorful momentum investigations, and all kinds of messy experiments in this week dedicated to the exciting world of science. With color-changing slime, eye-tricking optical illusions, and paint flying everywhere, it's sure to be an exciting week!

Space Explorers (Grades 1-3)

July 22-26, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Erwin Valley School, Painted Post

3..2..1.. Blast off into this fun-filled week all about space! Discover different parts of the galaxy, determine exactly why stars twinkle in the sky and learn how astronauts train to travel to the moon and beyond! We will build our own model solar system, launch rockets high into the sky and take advice from NASA as we explore, design and create! Campers will gain a greater understanding of our solar system by learning about planets, stars and space travel while using critical thinking skills and working together on exciting, hands-on science activities.

Blowing Off STEAM (Grades 4-6)

July 29-August 2, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Erwin Valley School, Painted Post

Discover something new with this exciting week of all things STEAM. Exploring a different field of science each day, campers will experience hands-on experiments, engineering projects, artistic creations and forensic mysteries all focused on science! Campers will create gooey polymers like slime and gummy worms, engineer catapults and gliders, design their own optical illusions and light- up circuitry art piece and so much more during this week of innovation and creativity. This week's activities are designed to expand campers' knowledge and skills, all while having fun!

Fizzy, Messy, Slimy (Grades 1-3)

August 5-9, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Arnot Mall, Horseheads

Grab an apron and get ready to get messy during this week of chemistry, art and everything in between, with some slimy, messy, foamy, fizzy, colorful fun! Campers will learn a surprising trick with red cabbage, use seaweed to make jelly worms and make spatter art using chemical reactions. Of course, camp wouldn't be complete without color changing slime! Come celebrate the science of making a mess!



FREE! Engineering Camp for Girls (Grades 6-9)

August 12-16, 9:00 AM-3:00 PM (no half-day option)

Location: Corning Community College

Get ready to roll up your sleeves and explore engineering, technology and math in our hands-on engineering camp just for girls! Campers will learn the basic principles of engineering design and use this process to solve a variety of challenges and explore how things work. Not only will campers get complete projects like building and testing bridges, exploring circuitry and developing simple machines using unusual materials, but they will also have the opportunity to spend time in Corning Community College's new Makerspace! The Makerspace contains a wide variety of tools and machinery, from woodworking to embroidery machines. It also has 3D printers and laser etching machines!

Campers will work collaboratively with one another, the CCC staff and real-life engineers during this incredible fun-filled week! This camp is inspired by Iren Bognar, who was the first female mechanical engineer hired by Corning Glass Works, and is funded through donations in her name. The camp is free to girls entering grades 6-9, and lunch will be included.

Colorful Creations (Grades 1-3)

August 12-16, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Arnot Mall, Horsehead

Jump into a week-long art adventure! From painting and sculpture to mixed media and more, campers will explore, experiment, play and create their own masterpieces while using math and science. Campers will be creative and scientific while getting messy and having lots of fun creating original works of art, like creating optical illusions, pendulum painting, origami, tile printing and more!

Let's Build It! (Grades 1-3)

August 19-23, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Arnot Mall, Horseheads

Put your imagination and creativity to work! Campers will discover, experiment, and explore the world of engineering. This week of fun-filled, hands-on activities focuses on simple machines, circuits and more. We will use the engineering design process to build towers, catapults, flying contraptions and so much more. Are you up to the challenge?

Adventure Artists (Grades 4-6)

August 19-23, 9:00 AM-12:30 PM or 9:00 AM-3:00 PM

Location: Spencer Crest Nature Center, Corning

Campers will be part artist and part scientists during this exciting week of colorful and creative exploration! We will use different media throughout the week. Exploration and creation are key themes this week as we experiment with different mediums. Make canvas painting, string art, perspective drawings, clay sculpting and more! Take a walk through the beautiful Spencer Crest Nature Center and gather items to make mobiles and to use for weaving with natural materials, and with making colors from natural ingredients.



@Tanglewood Nature Center

443 Coleman Avenue, Elmira

Pricing and Hours:

- Regular Day 10 AM-3 PM \$190
- Extended Day 9 AM-4 PM \$240
- Extended Day 8 AM-5 PM \$290
- More options available online

Registration:

Registration is on a first come, first served basis. You must be a member of Tanglewood to register a child for camp – membership fees are not included in the camp registration price. Registrations can be done online only at www.tanglewoodnaturecenter.com. For more information, contact Deanna at (607) 732-6060 ext.100.

* Please note: Your child must have *completed* at least the earliest grade in the session to register – for example, your child must have finished Kindergarten to enroll in a Grades K-2 session.

Winged Wonders (Grades K-2)

July 1-3 (no camp on Thursday and Friday)

- Explore the science of flight, wings and the animals who use them
- Learn about how flying works with activities like parachute games, paper airplanes and our own squeeze bottle rockets
- Get up close with our winged animal ambassadors like owls and insects
- This camp is ideal for any aviators in training looking to have some hands-on fun

Nature of STEM (Grades 3-5)

July 1-3 (no camp on Thursday and Friday)

- Spend the week outside and in the museum getting a hands-on experience with the world of science
- Learn about topics like the 4 elements (earth, air, water and fire) and chemistry taking part in engaging science experiments
- Create a memory book by practicing your photography skills out on the trails
- · This camp is ideal for creative, inquisitive minds that enjoy being outdoors and creating experiments

Camp Yucky (Grades K-2)

July 8-12

- Explore the muddy, slimy, oozy and sometimes yucky side of science by playing games and creating arts and crafts
- Dissect an owl pellet while learning about digestion
- Meet Tanglewood's collection of creepy crawlies
- This camp is ideal for kids who don't mind getting a little messy and are ready for hands-on nature adventures

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Forest Investigators (Grades 3-5)

July 8-12

- Play games in the woods that will fine tune your senses
- Explore creeks, ponds and trees to find camouflaged creatures and hidden secrets of the woods
- Find fossils and rearrange owl pellet bones to piece together mysteries of the past
- Take part in various science experiments and games inspired by nature
- This camp is ideal for inquisitive minds that enjoy being outdoors

Pond and Beyond (Grades K-2)

July 15-19

- Spend the week learning about amphibians and what makes them unique
- Go frog catching in our ponds and hunt for toads on the trails
- Explore the pond in all aspects: water, mud, and muck to see what makes up a pond habitat.
- This camp is ideal for any kids who loves frogs, toads and all amphibians and won't mind spending the day getting messy

Kid vs. Wild (Grades 3-5)

July 15-19

- This camp will put your outdoor skills to the test (in a fun way)
- Learn how to use a compass, read a map and other easy orienteering skills
- Practice survival skills like plant and berry identification, animal identification and tracking, lean-to construction, fishing and fire starting all in a safe environment
- This camp will consist of various hikes on our trails, so be prepared for plenty of outdoor time!
- This camp is ideal for kids who would like being outside for most of the day and would like to learn new camping and hiking skills

Planet Protectors (Grades K-2)

July 22-26

- Explore how animal adaptations are nature's true superpowers and how to become a superhero for the environment
- Learn about different ways you can help the environment everyday while exploring our trails and meeting animals like Sophie the Owl and Pedro the Bearded Dragon
- Test your superpowers learning about the different senses and completing an obstacle course
- This camp is ideal for any superhero in training who wants to protect our habitats and animals that inhabit them

Game On! (Grades 3-5)

July 22-26

- Learn about outdoor skills inspired from video games like Minecraft, Pokemon, Animal Crossing, Zelda and others
- Get creative and build your own forts and crafts using resources around you
- Learn about how tools from video games like drones can be used to help the environment
- Explore our woods with guided hikes and a campfire at the end of the week
- This camp is ideal for kids who want to put their video game skills to the test In real world



Dino Discovery (Grades K-2)

July 29-August 2

- Explore the woods on our trails to find your very own fossils
- Get up close and personal with the dinosaur descendants that we have here at Tanglewood like Hank the hawk, Fluffy the snake, and Pedro the bearded dragon
- Hatch a dinosaur egg
- This camp is ideal for any dinosaur, reptile or nature lover

Nature's Canvas (Grades 3-5)

July 29-August 2

- Nature is filled with art, so spend the week creating your own
- Bring out your creativity by using a multitude of media including photography, paint, clay and recycled materials
- Learn how scientists and researchers use art on a daily bases by creating your own nature journal and field guide during camp
- Finish out the week by creating an art museum in the lodge for your family to see
- This camp is ideal for any creative kids with big imaginations who like being out in nature

Critter Care (Grades K-2)

August 5-9

- Learn how we care for more than 40 different types of animals at Tanglewood
- Discover the tricks of training animals with positive reinforcement working with animals like mammals, birds, and more!
- Personally meet each major animal group and care for our critters from tooth to toe!
- This camp is ideal for kids who love animals, want to learn how Tanglewood cares for the animals that call us home, and don't mind getting a little messy

Animal Pawsibilites (Grades 3-5)

August 5-9

- Discover what amazing opportunities there are to work with animals!
- Care for some of animals that call Tanglewood home
- Uncover the basics of animal training when working with animals like birds and mammals
- Put your skills to the test with practice "X-rays" and pet exams
- This camp is ideal for kids who want to work with animals when they grow up and are ready for hands-on animal fun!

Go Wild! (Grades K-2)

August 12-16

- Go home laughing and grass-stained after a day of playing games
- Sculpt mud pies and meet some muddy animals
- Perform science experiments like making your own lava lamp
- This camp is ideal for kids who enjoy being outdoors and don't mind getting a bit messy!



Go Wild! (Grades 3-5)

August 12-16

- Go home laughing and grass-stained after a day of playing games
- Sculpt mud pies and make fossil prints
- Create works of art with natural items found in the woods
- Work together as we play cooperative and team building games
- This camp is ideal for kids who enjoy being outdoors and don't mind getting a bit messy!

Forts and Forests (Grades K-5)

August 19-23

- A week full of fun outdoors!
- Go on a wilderness adventure and build a fort with your friends
- Make crafts using natural materials
- Play and explore in the woods and discover who or what might be living there
- This camp is ideal for kids who love being outdoors and don't mind getting a bit messy!

@Wings of Eagles Discovery Center

339 Daniel Zenker Drive, Big Flats

Wings of Eagles Discovery Center courses are \$235 for a full day course. A limited number of scholarships are available for children who qualify. Please call 607-377-1878 for more information. To register for courses at the Wings of Eagles, please go to www.wingsofeagles.com/education.

Maker Space (PreK)

July 1, 2, 3, 5, 9:00 AM-3:00 PM

This class is designed for our 3-4 year old learners and will be offered as a full-day class. Students in this PreK group will get an introduction to our maker space and will have the opportunity to explore and use engineering and math skills.

Maker Space Tot (Grades K-2)

July 17-21, 9:00 AM-3:00 PM

Are you curious about how things work? You can use your own imagination and creativity during this week using LEGOs, simple science and stories. Come explore with us!

Discovery of Food Science (Grades K-2)

July 8-12, 9:00 AM-3:00 PM

Our little people will learn about the food pyramid, making good food choices, different food cultures and food science. Sampling new and different foods will round out this amazing week of science fun.



Grinchmas in July with STEAM (Grades K-2)

July 8-12, 9:00 AM-3:00 PM

Lets deck the halls and learn some science, FALALALALALA! Our favorite Christmas villain turned good guy will make an appearance and science, art and technology will abound this week.

Lego Simple Machines (Grades K-2)

July 15-19, 9:00 AM-3:00 PM

Students will investigate levers, inclined plans, screws and wheels during this week. Lets design a catapult, go cart and a merry-go-round! All lego based building fun all week. A talent show of our wonderful designs will wrap up the week.

Old McDonald's Farm (Grades K-2)

July 15-19, 9:00 AM-3:00 PM

This class is all about the animals. Would you be a good farmer? Learn new and interesting facts about all sorts of farm animals, including how to care for them. We will have animals on premise for you to get hands-on with.

Lego Learners with SPIKE (Grades K-2)

July 22-26, 9:00 AM-3:00 PM and

August 19-23, 9:00 AM-3:00 PM

Students will build and create various engineering designed projects using LEGO SPIKE Robotic Kits. Hands on class including beginning coding skills.

Lego Construction Playdate (Grades K-2)

July 22-26, 9:00 AM-3:00 PM

We built this city with Legos! Students will work together to build a city that will be displayed at the museum! While engineering our city, students will learn about all the important parts that make up a successful city in their neighborhood.

Pokémon Trainer Course (Grades K-2)

July 29-August 2, 9:00 AM-3:00 PM

Students embark on a Pokémon training journey including building with Legos, STEM-themed Pokémon projects and 3D printing. Come on in, we gotta catch em all!

Fun with Science Tot (Grades K-2)

July 29-August 2, 9:00 AM-3:00 PM

Household products are curiously inspiring: With a splash of food coloring and a teaspoon each of liquid starch and glue, We can concoct an elastic, Slimy glob technically known as a "non-Newtonian fluid. We even make our own bubble gum! Come out and enjoy our course in the hands on and edible. This is our Tot version, appropriate for grades K-2.



Wings & Things (Grades K-2)

August 5-9, 9:00 AM-3:00 PM

Discover and explore how animals and aircrafts have a lot in common. Investigate animals that can fly and how they have similar features to aircraft. Hands-on and project-based includes integrated bird tracking and use of Cornell Lab of Ornithology materials.

Minecraft Maker Space (Grades K-2)

August 5-9, 9:00 AM-3:00 PM

Do you love Minecraft? This class is sure to be a creeper! Students will explore Minecraft themed crafts, coding and more.

Lego Briq (Grades K-2)

August 12-16, 9:00 AM-3:00 PM

Introductory STEAM program that will teach students how to be better critical thinkers. Lego hands-on based activities.

Pokémon Trainer Take 2 (Grades K-2)

August 12-16, 9:00 AM-3:00 PM

Students embark on a Pokémon training journey including building with Legos, STEM themed Pokémon projects, and 3D printing. Come on in, we gotta catch em all!

Body System BINGO (Grades K-2)

August 26-30, 9:00 AM-3:00 PM

What's healthLiteracy? Health literacy is the foundation of self discovery, well-being and good life choices. It's the power of knowing your body and having the knowledge to take care of it. It is literally information that will last our children a lifetime. Like math, reading, writing and critical thinking, understanding human anatomy is an essential life skill.

Discovery Food Science (Grades 3-8)

July 8-12, 9:00 AM-3:00 PM

Learn how to cook basic meals and the science behind cooking. What are yeasts? Why does water boil? What happens when molecules freeze! Hands-on learning and a fresh lunch made daily. Students will also learn healthy eating tips and tricks.

EV3 Lego Robotics (Grades 3-8)

July 15-19, 9:00 AM-3:00 PM

Students will build and create various engineering designed projects using LEGO EV3 Robotic Kits. Hands on class including coding and critical thinking.



Engineering Water Design (Grades 3-8) July 22-16, 9:00 AM-3:00 PM

Learn science, math and engineering while playing with the design of rollercoasters and water slides. Have you ever wondered why rollercoasters work? Why are water slides so fast? Could we build a better slip and slide? This hands-on camp will teach you how to think like an engineer. (Students will need to bring/wear under clothes their bathing suits/clothes that can get wet, towels daily and sunscreen!)

Soccer Drones Science (Grades 3-8)

July 29-August 2, 9:00 AM-3:00 PM

This introductory program illustrates aviation and physical sciences principles using lightweight and simple drone products that are child-safe, affordable and forgiving for young pilots.

Science of Superheroes (Grades 3-8)

August 5-9, 9:00 AM-3:00 PM

Did you ever wonder if humans could really fly like Superman? If a Tony Stark is possible? Could we shrink a human like Ant-Man? Blow up a guy like the Hulk? What is a mutation anyways? Come on a journey of math, science and comic book fun. Includes a visit to our local comic shop. .

Take Flight (Grades 3-8)

August 12-16, 9:00 AM-3:00 PM

Hop into the pilot seat, learn the basics of aviation; take the controls and get ready to learn the basics behind flight. We will build airplanes and learn using actual flight simulators. Our new and upgrade virtual reality experience is heart stopping fun and excitement. This non-stop action is great for students that love video games and science. We will also be exploring, building and launching rockets during this take flight course.

Nanotechnology (Grades 3-8)

August 19-23, 9:00 AM-3:00 PM

Explore the world like Ant-Man. Discover how to look at the world through the micro and macro lens.

Fortnite Nerf Science (Grades 3-8)

August 26-30, 9:00 AM-3:00 PM

Calling all Fornite and nerf fans. Learn how blimps work, talk forces, motion and all things physics. Why does a nerf gun work? Get ready to learn about weather. Could that storm really happen? An epic nerf battle will be planned and executed in this fun-filled week.



Summer of Innovation 2024 partners:

- Corning Community College <u>www.corning-cc.edu/student-life/steahm.php</u>
- GST BOCES <u>www.gstboces.org</u>
- Notre Dame High School <u>www.notredamehighschool.com</u>
- Science & Discovery Center <u>www.sciencediscoverycenter.org</u>
- Tanglewood Nature Center and Museum <u>www.tanglewoodnaturecenter.com</u>
- Wings of Eagles Discovery Center <u>www.wingsofeagles.com</u>