UNCG Science Everywhere

RISE NETWORK

labcorp Charitable Foundation

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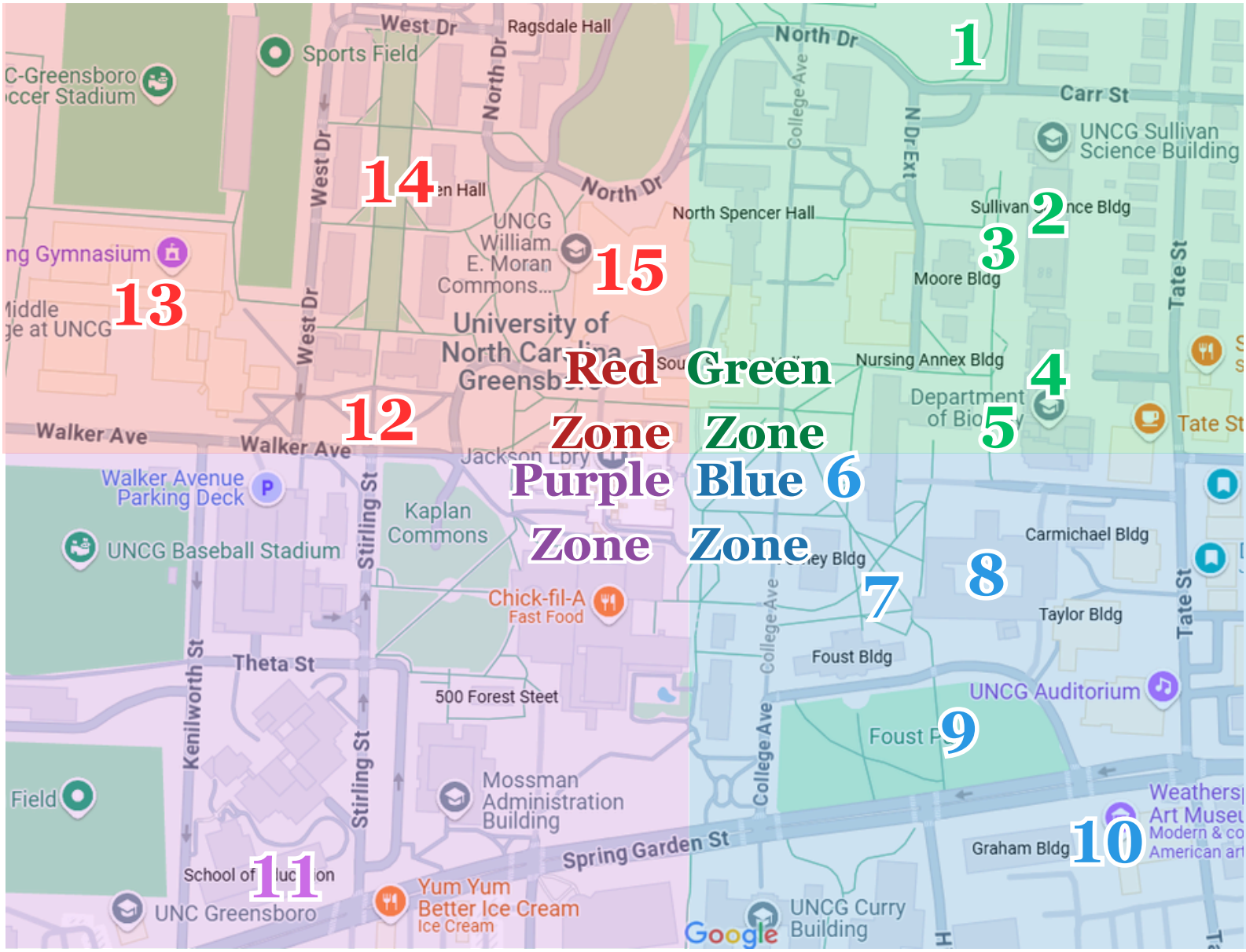
What is Happening and Where?

Event Map:



Collect 5 stamps on your passport to earn a prize. Also, collect 2 stamps from each zone to receive a FREE T-shirt, which you can tie-dye at Location 12 on the map!

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Shuttle Instructions:

Use the Spartan Chariot to move between Zones and across Campus!

Download Passio Go!

Agency = UNC Greensboro

Choose Special Events

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What is Happening and Where?

Green Zone

Title	Description	Map Location
DNA Origami	**Craft and learn about DNA structure through origami and take home your own origami DNA structure!**	**2**
Building Blocks of Nature	**Explore the chemical elements and the periodic table with several hands-on demonstrations using actual samples of elements!** *Spanish*	**2**
Built to Burn: Why Fire Creates Biodiversity	**Learn about the Longleaf pine savanna and why fire is so important for this system!** *Mongolian*	**2**
UNCG Biodiversity Collections	**Observe examples of mammals from mountain ecosystems including the Southern Appalachian Mountains, Southern Rocky Mountains, and sky island ranges of the Great Basin (USA)!** *Mongolian*	**2**
Living your best life: The things that creep, crawl, and live on mammals!	**Come see real preserved specimens of a huge diversity of creepy ectoparasites like fleas, lice, and botflies UP CLOSE and PERSONAL!** *Mongolian*	**2**

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Title	Description	Map Location
Glowing Drawings and Your Portrait	See a series of living glow in the dark bacterial drawings. All the light will be coming from bioluminescence, a chemical reaction happening in living cells. The light will be seen in a complete darkroom. Take photographs next to the drawings!	2
Glowstick in a Test Tube	Observe how chemicals can be mixed and then shaken on a vortex shaker to get them to glow!	2
Light + Eyes = Illusions!	Come see demonstrations about optical effects created by still images and combinations of patterns. Create your own scanimation box and your own hologram! *Spanish*	2
Twistronics: Magic of the Twist	Become a “Nano-Architects" to explore how the alignment of atoms changes the world around us, learning the Concept of Twistronics!	2

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Title	Description	Map Location
How do chemists and biochemists "see" molecules?	Explore hands-on activities such as pipetting and simple sample preparation and watch live demonstrations! Tour the Mass Spectrometry Facility and observe how mass spectrometers are used to detect and identify molecules that are too small to see! *Spanish*	2
Light Microscopy	Explore different samples like pond water, plant and animal tissues using light microscopy!	2
Color Mixing By Micropipetting	Learn how to use micropipettes and make hues, build a rainbow, and create colorful art designs by micro pipetting safe food-coloring water solutions! *Nepali, Bengali, Hindi*	2
Fundamental of Nanoscience and Nanoengineering	Learn about Bernouli's Principle, concept in fluid dynamics, and the mechanism behind aircraft wings, DNA Extraction, Nanopores and Polymers Properties!	2
Microscopy of Fungi	Observe fixed fungal cells on the ECHO Rebel microscope and learn about fungi that live in our body and how they can cause infections via morphological changes!	2

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Title	Description	Map Location
Undergraduate Research, Scholarship, and Creativity Presentations	There will be periodic poster sessions where students will present their research and then answer questions about what they did or about undergraduate research activities at UNCG.	2
Molecular Reaction Dynamics Research Lab	Tour our lab and learn about our efforts towards developing a first-of-its-kind analytical instrument we're calling a Mass Starkometer. The lab is full of electronics coupled to experiments using microwaves, lasers, and vacuum chambers!	2
Chemistry of the Oberlies Lab	Observe a demonstration of flower bleaching and discoloration using burning sulfur and ammonia gas, respectively! Tour the lab to observe extractions of fungal metabolites within separatory funnels, special chromatographic instruments to isolate compounds, and some data to present the identification of specific molecules!	2

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Title	Description	Map Location
Fungi of the Oberlies Lab	Observe various fungi growing in Petri dishes and microscopic images of fungal spores that are otherwise invisible to the naked eye. Learn about how our lab studies Fungi as well as the many applications it, such as bioremediation, pollution mitigation, and as a resource for developing drugs to combat various human diseases. Fun Fact: 90% of fungal microbes are unknown. So, there is a lot more fungal biodiversity to discover!	2
Chekan Lab	Learn how scientists answer questions about how natural products are made using various techniques and instrumentation!	2
Plant Biotechnology and Molecular Biology with the Osena Lab	Tour the plant biotechnology lab to observe genetically modified plants and glowing plant tissues under microscope!	2

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What is Happening and Where?

Title	Description	Map Location
Cabbage pH	Learn about the pH of several household objects by seeing their interaction with red cabbage juice, a natural pH indicator!	3
From Candy to Chemistry: Exploring Diffusion with Skittles	Observe diffusion through a demonstration using skittles! Learn how LabCorp uses diffusion in lab testing to help determine effective treatments for patients!	3
RTV-2 Silicone Rubber	Explaining and demonstrating the chemistry of RTV-2 silicone rubber.	3
Explore your Microbiome	Culture your own microbiome on a petri dish to take home and watch grow! Learn about the beneficial microbes associated with all plants and animals in our environment!	5
Physiology of breathing	See a demonstration of how your lungs work, and use a small interactive component to see how marshmallows can also act like our lungs. We will also have a few coloring pages to color at the table or take home!	5

What is Happening and Where?

Title	Description	Map Location
Extract your own DNA!	**Extract your own DNA using common household supplies and learn about fun DNA facts!**	**5**
Photosynthesis LIVE	**Learn how plants turn air and water into energy -- in other words, how they do photosynthesis! We will use top of the line scientific instruments to track photosynthetic rates of various types of plants. See how your breath stacks up with 'plant breath!'**	**5**

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Blue Zone

Title	Description	Map Location
Honey bees and seed bombs	Make pollinator-friendly seed-bombs and come have a look at the honeybee observation hive!	6
Creatures of the Night: Identifying Nocturnal Insects	Match, learn and win! Learn about nighttime insects and assess them by their potential identifications through a matching game!	6
STEM Explorations	Come see our future teachers facilitate STEM activities designed to support young children to engage in fun, hands-on science activities!	6
UNCG Psychology Clinic	Interactive learning about coping skills through blowing bubbles for deep breathing, scavenger hunt for connecting to your senses, exploding carbonated beverages to show what happens when emotions are kept inside and more!	6
Interactions and Relationships Lab	Learn about child development in the digital age: digital literacy, how to build a healthy relationship with technology that dodges risks and maximizes benefits! *Spanish*	6

What is Happening and Where?

Title	Description	Map Location
University Libraries	Visit this station to receive kits to make your own zine!	6
Hats Off to Your Brain!	Create brain hat crafts and learn about the brain through coloring the different regions to create your brain hat. Play fun games on iPads that are often used to assess different components of children's executive function!	7
Color Changing Slime	Learn about the chemistry of making slime and molecules that change their color based on temperature!	7
Space Weather and its Effects on Radio Communications	Learn about how solar activity affects our atmosphere and makes long-distance radio communications possible...most of the time! Safely view the sun through a solar-filtered telescope and hear long distance radio signals via our amateur (ham) radio equipment.	7
Exploring Lifecycles	Play the lifecycle game through an interactive poster. Guess the lifecycles of three animals and compare them to the lifecycle of humans. Learn about development and aging processes!	8

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Title	Description	Map Location
Anesthetizing Crickets	Come watch crickets fall asleep with the help of anesthesia and learn about how patients take a nap during anesthesia!	8
Heart and Lung Function	See a visual representation of your heart and lungs and learn about how they function inside your body!	8
Brain Waves and Neurons	Learn about brain waves and how your neurons send signals throughout the body to your brain!	8
Maverick the School of Nursing High Fidelity Robot	The High-Fidelity Robot, Maverick, will greet visitors in the Nursing and Instructional building and show off his abilities! *Spanish*	8
Welcome Station and Raffle	Stop here first to check off your passport and enter our hourly raffles.	8
Photo Booth and Kid Corner	Take a picture to remember your time in the Nursing and Instructional Building and then let practice with medical equipment, including stethoscopes and syringes!	8
VR Station	Come explore and learn about how Virtual Reality plays a part in Nursing Care!	8

What is Happening and Where?

Title	Description	Map Location
Anatomage	Experience the human body one layer at a time! *May be graphic for young visitors*	8
Diseased Organ Displays	Come view healthy and diseased organs with us! Related to the anatomage exhibit.	8
Sim Moms	Learn about the process of childbirth using our simulation models!	8
CPR Training	Learn about and practice lifesaving CPR with Nurses and Nursing Students!	8
Glo-Germs	See the germs on your hands under a blacklight and learn about the importance of washing your hands!	8
The Science of Your Heartbeat	Learn about the importance of physical activity by seeing how exercise changes your heart rate!	8
Check Your Stats	Check your vital signs with Nurses and Nursing students!	8
ConeHealth GeneConnect	Make a model of your DNA and learn about how your genetics impacts your health!	8
Thermo Fisher Scientific	Learn about biotechnology used in Nursing!	8
Minerva's Mobile Health	Come tour and experience a hands-on demonstration of Minerva's Mobile Health!	8
Anatomy Simon Says	Learn about the different organs in your body through a game of Simon Says!	8

What is Happening and Where?

Title	Description	Map Location
Nutrition & You	Learn hands on how the stomach turns food into nutrients to fuel your body!	8
Veggie Meter	Come use a Veggie Meter with us to measure carotenoids in skin as an objective indicator of fruit and vegetable intake! Higher scores suggest greater consumption of foods high in carotenoids.	8
Alginate Worms with NOBCChE!	Come make alginate worms while learning about the science behind it!	9
Triad Wild!	Learn how to identify wildlife and participate in wildlife games! Interact with live snakes and examine live insects!	9
Dangerous Decibels	Learn about how loud sounds can be harmful to your hearing and participate in interactive activities to prevent noise-induced hearing loss!	9
The Science of Breathing & Freezing with NSBWM	Explore hands-on activities that demonstrate how chemistry connects to health and the human body using baking soda, vinegar and balloons. Younger visitors will make ice cream in a bag while learning about freezing point depression and how salt lowers the temperature of ice to freeze liquids!	9

What is Happening and Where?

Title	Description	Map Location
What's Your Ecological Footprint?	Engage in a computer-aided investigation of your personal ecological footprint to show how you can help reduce pollution, resource consumption, and CO2 emissions!	10
"Sow" Much Food Science: Watch Me Grow then Eat Me!	Select a seed of choice and plant it in a pot to take home, and later transplant the seedling into a bigger pot of garden patch, learn about seeds and their importance though a seed identification game!	10
Science & Art: Geometry in Fabric	The Weatherspoon Art Museum invites everyone to come and learn about the science behind fabric arts! Stop by our station to create your own paper quilt square and explore the physics behind felt weaving. Get your quilt square photographed to take part in our digital community quilt!	10
Regolith Analysis and Hydrogeomorphology Lab	View and experiment with samples of rock, sediment, and soil through microscopes! Learn about a mini-flume apparatus that simulates streamflow hydraulics and sediment!	10

What is Happening and Where?

Title	Description	Map Location
Carolina Tree-Ring Science Laboratory	Learn how information from tree rings can provide information about past climates and environmental events such as fire and pest infestations!	10

What is Happening and Where?

Purple Zone

Title	Description	Map Location
Cardboard Robot Parade	Join us in the Cardboard Robot Factory to create your own amazing wearable cardboard robot! Find your inspiration in our Imagination Station, work with our Cardboard Robot Engineers to build your masterpiece and at 3:45 PM, march in the Cardboard Robot Parade! Parade begins between the library and the EUC and ends with a Cardboard Robot Dance Party in Faust Park!	10

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Red Zone

Title	Description	Map Location
Reactions of Dry Ice and Making Slime!	**Create Slime and do exciting experiments using Dry Ice!** *Spanish*	**13**
Robotics and Coding for Beginners	**Learn hands on how robots are programed and watch them play songs, sumo wrestle, respond to commands, and more!** *French, Arabic*	**13**
Tennis Ball Robot: Owl Hunt	**Use our tennis ball shooting robots to shoot tennis balls at cardboard owls! This activity shows that robotics, math, and science is fun!** *Hindi*	**13**
Learn what fuels your body with the iGrow Study	**Learn how what you fuel your body with can affect how you feel. Learn how movement, food and sleep can fuel your body!**	**13**
Indigenous Polycultures	**Come learn about the three sisters inter-cropping system!**	**14**
Esports	**Esports is packed with ways to grow. Learn what it takes to lead, compete, and make gaming more than just a hobby—start building skills that level up your future!**	**15**