





**Summer Science Camps for Grades K-8** 

# **2020 Camps**

Young investigators will take an unforgettable science adventure this summer with experiences ready for even the most curious minds. Through hands-on engaging activities, campers will learn about evolving technology, environmental preservation, the chemistry of our food, astronomy and more!





### **CHOOSE YOUR CAMPS**

Use the information in this camp guide and on our website to choose the camps that match your child's school grade level in Fall 2020 and your child's interests.

#### **REGISTER ONLINE**

Go to moreheadplanetarium.org/camp
When registration opens, you'll see a
"Register Now" button appear on the
camp homepage — click the button and
follow the instructions.

# SUBMIT REQUIRED CAMP FORMS\*

After you register online, you'll receive a confirmation email. (This may take up to 30 minutes to arrive. If you don't see it in your inbox, check your spam folder!)

\*Morehead uses the Active.com registration system, so you may see Active.com instead of Morehead in your online billing record.

#### **Aquatic Animal Adventures**

Splish! Splash! What kinds of animals live underwater? Join us as we explore puddles, lakes, rivers and oceans. Design whale outfits and create tadpoles that become frogs. Get your bathing suits ready and prepare to make a splash!

#### The Air Up There

Everyone has probably seen something flying through our skies. But what kinds of things can fly through the air and who made important discoveries about flight? We will answer these questions and more as we learn all about the science behind flight. Students will create, experiment with, and fly their own inventions every day.

### **Our Closest Star**

Let's take a closer look and learn all about our nearest star: the Sun! In this stellar camp we will make sun prints, build mini sundials and learn how the sun helps us in our everyday lives. By the end of the week, we will all learn why the Sun is so important to our planet and to us!

#### **Constructed Creations**

Pyramids, bridges, arches and towers—humans have built them all and, in this camp, you will too! We will Investigate the shapes and structures all around us, learn how major monuments were made, and apply those skills to design and build our own city!

#### **Magic Tree House® Explorers**

Like Jack and Annie, young campers will enter the Magic Tree House® for an exciting space mission, including visits to an observatory, the International Space Station and the Moon, to name a few. Daily story time will be an important part of this Magic Tree House® journey!

#### **Dino Detectives**

Calling all dinosaur enthusiasts! What do we know about dinosaurs? Making Triceratops masks and getting to know a Tyrannosaurus Rex are just the beginning of the fun as campers explore what the world was like when dinosaurs roamed the Earth.

## **Magic Tree House® Researchers**

How many stars in the starry night sky?

If we flew to the Sun, how long would we fly?

Will we travel to planets, and will it be soon?

Will we ever be able to live on the Moon?

How does it feel to journey through space?

And why is our Earth so special a place?

Discover the answers to these and more Magic Tree House® riddles about astronomy and space science!

#### Coding 101

Get ready to decipher coding language and crack open a computer in this fun and interactive camp. Coding 101 will teach the basics of programming through fun activities involving all kinds of new technology and well-known titles such as Minecraft and Scratch. We'll even kick off this camp by programming and controlling robots!

#### **Potion Productions**

What "potions" do we use every day? Assess the effectiveness of your homemade toothpaste, learn about polymers by making glue and taste test your cola recipe. Develop the best version of your choice of product and create clever advertisements to support it. This camp is great fun for young scientists AND entrepreneurs!

#### A Piece of Mind

Your brain controls everything you do. Learn how important your brain is as you journey inside the body's command center! Optical illusions, mazes and even ice cream sundaes will help demonstrate how the brain controls your senses, actions, thoughts and moods. Along the way, we might even discover how to boost your brain power!

#### **LABracadabra**

Harness your inner magician as we explore the science of magic! Can you make water disappear? Can you make metal float? Learn the science behind amazing tricks and illusions and put your knowledge to the test as you prepare a science magic show. You'll be on your way to becoming a Morehead magician as fast as you can say LABracadabra!

## **Light Up My World**

Why does your shadow change shape? Why is the sun so bright? Why is the sky blue? Through experimentation and creative play, campers will make rainbows, measure time with shadows, and discover how scientists use light to learn about the Universe. This camp is bound to be illuminating!

## **Computer Science: Coding 201**

You've learned the basics; now level up with Coding 201! We will take a deeper look into the world of programming through cool new technology and activities. Although this a more in-depth introduction to the world of coding, Coding 101 is not required to enroll in this camp.

#### **Engineering: LEGO® Lab**

Physics and engineering come to life when we get to use LEGO® building bricks. We will use simple machines to complete impressive projects— wheels, axles, and gears to make cars, pulleys to make cranes, and levers to make trebuchets! On our last day we will put it all together with to build a Rube Goldberg machine or an entire LEGO® city!

#### **Chemistry: Reactions in Action**

Spend a week exploring chemistry in this exciting camp. Learn about atoms, molecules, acids, bases and chemical reactions with all kinds of hands-on experiments! Campers will experiment with freezing points using ice cream and explore the science of fireflies by making glow sticks!

## **Astronomy: Stellar Exploration**

Look to the sky – what can you see? Even without a telescope, our eyes can tell us a lot more than you might think. In this camp, learn to identify constellations, planets and lunar craters and find the International Space Station as it travels overhead. Visit the planetarium to explore the Earth, the solar system and the universe!

# **Environmental Science:** Wilderness Survival

What would you do if you found yourself in an unknown land? Campers will learn how to navigate using compasses, GPS units, the stars and more! By the end of the week, they'll add animal observation, fire building and teamwork to their survival skillset.

## Food Science: Chemistry Café

Baking, cooking, eating - these are all chemistry! We're going to turn the kitchen into a lab and put on our science chef hats to find out what gives vegetables their flavor and makes popcorn pop. Who knew science could taste this good?!

This camp is not recommended for children with food allergies or food sensitivities.

# SciVentures

# Summer Science Enrichment Program for Grades 6-8

This full-day experience gives middle schoolers the opportunity to explore fascinating real-world science themes in-depth! Each week-long program combines practical lab work and fun hands-on activities, allowing your child to envision themselves with a career in the sciences.



# **DRONE ZONE**

Design, construct and test your own personal drone. Explore the laws of physics and what makes things fly. Become a pilot and fly your drone through a series of obstacles to learn how much fun technology can really be! Controlling your drone is just the beginning — by the end of camp, you will be able to identify different types of fun flying vehicles, know how they work and even take your drone home with you! The sky is the limit in this exciting and innovative SciVentures experience!



## **SCIENCE OF SLICES**

Some say that the secret to good pizza is in the sauce, but the secret is really in the science! From the ingredients to the oven, explore the chemistry and techniques behind making cheese, mixing dough, cooking sauce and preparing toppings. Learn what gluten is and how it helps pizza, taste-test cooked sauce and raw sauce and investigate the differences between local, fresh ingredients and mass-produced ingredients. Morehead's kitchen is your lab!

This camp is not recommended for children with food allergies or food sensitivities.



## **WETLAND WELFARE**

This isn't just a camp, it's an adventure! This full-day experience is for middle school students who love science and don't mind getting a little bit muddy. SciVentures: Wetland Welfare brings true-to-life field work and lab experiences together to create week-long excitement, as students study water quality, build weirs, and search for local organisms.

# **Policies**

Please refer to Morehead's camp website **moreheadplanetarium.org/ camp** for complete details about Morehead Summer Science Camps and SciVentures, including frequently-asked questions.

| DATES  |         |
|--|---------|
| Concierge registration opens<br>for Lunar Level (and higher) members | Jan. 13 |
| Early registration opens for Morehead members at 12 p.m.             | Jan. 20 |
| Early registration opens for UNC faculty/staff at 12 p.m.            | Jan. 24 |
| Public registration opens at 12 p.m.                                 | Jan. 27 |
| Camp open house and orientation                                      | ТВА     |

| CAMP SCHEDULE                           |                |  |  |  |
|---|----------------|--|--|--|
| Morning extended care                   | 7:30-8:45 a.m. |  |  |  |
| Morning drop-off                        | 8:45-9 a.m.    |  |  |  |
| Morning camp                            | 9 a.m12 p.m.   |  |  |  |
| Morning pickup for half-day campers     | 12-12:15 p.m.  |  |  |  |
| Lunch for full-day campers              | 12-1 p.m.      |  |  |  |
| Afternoon drop-off for half-day campers | 12:45-1 p.m.   |  |  |  |
| Afternoon camp                          | 1-4 p.m.       |  |  |  |
| Afternoon pick-up                       | 4-4:15 p.m.    |  |  |  |
| Afternoon extended care                 | 4:15-6 p.m.    |  |  |  |

| SCIVENTURES SCHEDULE    |                |  |  |
|-------------------------|----------------|--|--|
| Morning extended care   | 7:30-8:45 a.m. |  |  |
| Morning drop-off        | 8:45-9 a.m.    |  |  |
| SciVentures             | 9 a.m4 p.m.    |  |  |
| Afternoon pick-up       | 4-4:15 p.m.    |  |  |
| Afternoon extended care | 4:15-6 p.m.    |  |  |

| FEES                               |        |        |  |  |
|------------------------------------|--------|--------|--|--|
|                                    | Member | Public |  |  |
| Half-day, one week K-5 camp*       | \$153  | \$170  |  |  |
| Full-day, one week SciVentures     | \$405  | \$450  |  |  |
| Morning extended care (per week)   | \$20   | \$20   |  |  |
| Afternoon extended care (per week) | \$25   | \$25   |  |  |

\$50 deposit for each camp is required at the time of registration. Camp deposits are nonrefundable unless Morehead cancels the camp.

The balance of each camp fee must be paid by April 30, 2020. (If you register on or after this date, you must pay the full camp fee at the time of registration.)

\*For Coding 101 and 201, there will be a technology fee of \$40.

### **REFUNDS**

Due to the extraordinary circumstances surrounding the summer of 2020 our refund policy will remain as flexible as possible in order to ensure our ability to accommodate the requests of our camp families and maintain camper safety as our highest priority.

## **LOCATION**

All camps are located at Morehead (250 E. Franklin St. Chapel Hill, NC) or surrounding buildings on The University of North Carolina at Chapel Hill campus.

# Schedule

Register online at www.moreheadplanetarium.org/camps

# **GRADES K-1**

**GRADES 2-3** 

|       | AM                                | PM                                | ADDED                             | АМ                                  | PM                                  | ADDED                               |
|-------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| July  | Dino<br>Detectives                | The Air<br>Up There               | Dino<br>Detectives                | Coding<br>101                       | Light Up<br>My World                | Light Up<br>My World                |
| 6-10  | The Air<br>Up There               | Dino<br>Detectives                | The Air<br>Up There               | Light Up<br>My World                | Coding<br>101                       | Light Up<br>My World                |
| July  | Magic Tree<br>House®<br>Explorers | Constructed<br>Creations          | Magic Tree<br>House®<br>Explorers | LABracadabra                        | A Piece<br>of Mind                  | LABracadabra                        |
| 13-17 | Constructed<br>Creations          | Magic Tree<br>House®<br>Explorers | Constructed<br>Creations          | A Piece<br>of Mind                  | LABracadabra                        | A Piece<br>of Mind                  |
| July  | Our Closest<br>Star               | Aquatic<br>Animal<br>Adventures   | Aquatic<br>Animal<br>Adventures   | Magic Tree<br>House®<br>Researchers | Potion<br>Productions               | Coding 101                          |
| 20-24 | Aquatic<br>Animal<br>Adventures   | Our Closest<br>Star               | Our Closest<br>Star               | Potion<br>Productions               | Magic Tree<br>House®<br>Researchers | Coding 101                          |
| July  | Dino<br>Detectives                | The Air<br>Up There               | Dino<br>Detectives                | Coding 101                          | Light Up<br>My World                | Potion<br>Productions               |
| 27-31 | The Air<br>Up There               | Dino<br>Detectives                | The Air<br>Up There               | Light Up My<br>World                | Coding<br>101                       | Magic Tree<br>House®<br>Researchers |
| Aug.  | Magic Tree<br>House®<br>Explorers | Constructed<br>Creations          | Magic Tree<br>House®<br>Explorers | LABracadabra                        | A Piece of Mind                     | LABracadabra                        |
| 3-7   | Constructed<br>Creations          | Magic Tree<br>House®<br>Explorers | Constructed<br>Creations          | A Piece<br>of Mind                  | LABracadabra                        | A Piece<br>of Mind                  |
| Aug.  | Our Closest<br>Star               | Aquatic<br>Animal<br>Adventures   | Aquatic<br>Animal<br>Adventures   | Magic Tree<br>House®<br>Researchers | Potion<br>Productions               | Potion<br>Productions               |
| 10-14 | Aquatic<br>Animal<br>Adventures   | Our Closest<br>Star               | Our Closest<br>Star               | Potion<br>Productions               | Magic Tree<br>House®<br>Researchers | Magic Tree<br>House®<br>Researchers |

# **GRADES 4-5**

# **GRADES 6-8**

| AM   | PM   | ADDED  | АМ   | PM |  |
|--|--|--|--|----|--|
| Food Science:<br>Chemistry<br>Cafe               | Environmental Science:<br>Wilderness<br>Survival | Food Science:<br>Chemistry<br>Cafe               | SciVentures: Drone Zone  |    |  |
| Environmental Science:<br>Wilderness<br>Survival | Food Science:<br>Chemistry<br>Cafe               | Environmental Science:<br>Wilderness<br>Survival |  |    |  |
| Astronomy:<br>Stellar<br>Exploration             | Computer Science:<br>Coding<br>201               | Astronomy:<br>Stellar<br>Exploration             |  |    |  |
| Computer Science:<br>Coding<br>201               | Astronomy:<br>Stellar<br>Exploration             | Astronomy:<br>Stellar<br>Exploration             | SciVentures Drone Zone   |    |  |
| Food Science:<br>Chemistry<br>Cafe               | Environmental Science:<br>Wilderness Survival    | Food Science:<br>Chemistry<br>Cafe               | SciVentures: Drone Zone  |    |  |
| Environmental Science:<br>Wilderness<br>Survival | Food Science:<br>Chemistry<br>Cafe               | Environmental Science:<br>Wilderness<br>Survival | SciVentures: Wetland Welfare (Added)                                   |    |  |
| Chemistry:<br>Reactions<br>in Action             | Lego<br>Lab                                      | Chemistry:<br>Reactions<br>in Action             | SciVentures: Science of Slices<br>SciVentures: Wetland Welfare (Added) |    |  |
| Lego<br>Lab                                      | Chemistry:<br>Reactions<br>in Action             | Chemistry:<br>Reactions<br>in Action             |  |    |  |
| Astronomy:<br>Stellar<br>Exploration             | Computer Science:<br>Coding<br>201               | Lego<br>Lab                                      | SciVentures: Science of Slices<br>SciVentures: Wetland Welfare (Added) |    |  |
| Computer Science:<br>Coding<br>201               | Astronomy:<br>Stellar<br>Exploration             | Lego<br>Lab                                      |  |    |  |
| Chemistry:<br>Reactions<br>in Action             | Lego<br>Lab                                      | Computer Science:<br>Coding<br>201               | SciVentures: Science of Slices   |    |  |
| Lego<br>Lab                                      | Chemistry:<br>Reactions<br>in Action             | Computer Science:<br>Coding<br>201               |  |    |  |



250 East Franklin Street Campus Box #3480 Chapel Hill, NC 27599-3480

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# UNC DISCOUNT CODE: 2020CAMPUNCEMP

Early registration for UNC faculty and staff begins Jan. 24

# **CAMP OFFICE**

919-843-7334

mpsc\_camps@unc.edu

www.moreheadplanetarium.org/camp

# **MOREHEAD MEMBERSHIP**

919-843-3574

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www.moreheadplanetarium.org/membership

# **TEEN VOLUNTEER PROGRAM**

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# MEMBER DISCOUNT CODE: 2020CAMPMMBR

Lunar members and above concierge registration begins Jan. 13 All member early registration begins Jan. 20

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# PUBLIC REGISTRATION OPENS JAN. 27

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