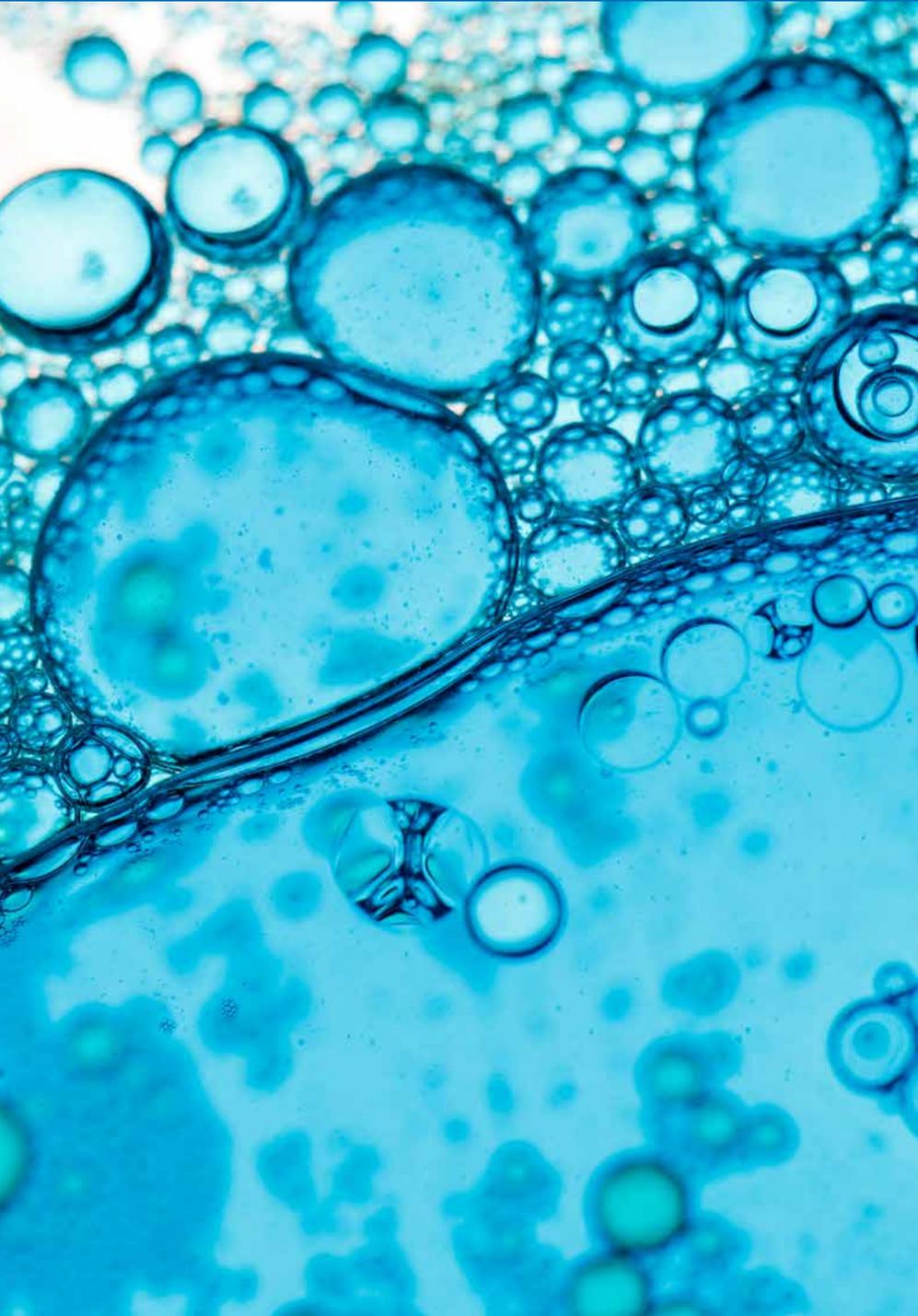




2021-2022 HOMESCHOOL EDUCATOR'S GUIDE

SPONSORED BY CHASE 





Ever wonder how to transform science, technology and nature for your students?

Through a network of four hands-on museums in three different cities as well as educational outreach programs, Discovery Place is a leader in STEM education in the Carolinas and beyond.

The foundation of our educational approach is rich, multidisciplinary, interactive learning that will propel your students to be successful now and in 2030. Discovery Place wants to be your partner in building a STEM community!

We offer multiple opportunities that can be combined for maximum educational impact. Imagine combining a world-class field trip and class for students and a special event at your school for families.

We look forward to partnering to serve your students, families and teachers in this fast-changing world.

COVID-19 SAFETY

Whether you bring your class to one of our Museums or welcome us into your classroom, you can rest assured that we have safety down to a science. We have modified our most popular Outreach programs to address the health and safety of all our students and partners. These updated programs allow for students to engage in hands-on, high-energy learning experiences in science, technology and nature while maintaining a safe environment for everyone. We also offer Virtual Classes and Virtual Assemblies that you can stream live from anywhere.

All programs meet NC Health and Human Services (NCDHHS) Standards for Schools.



2021/2022 HOMESCHOOL CLASS SCHEDULE

Classes take place in Explore More Labs or Discovery Place Science classrooms every first Monday of the month, with the exception of September, from 1:30-3:00 pm.

Date	Pre K	Grades 1 - 2	Grade 3 - 5		Grade 6 - 8	
Sept. 13, 2021	Classifying Critters	Can You Hear Me?	Animal Behavior and Adaptation	Motors, Circuits & Art	Concepts of Chemistry	The Human Body
Oct. 4, 2021	Dig into Earth Science	Weather Watchers	What's the Forecast?	Force & Motion	Take a Cell-fie!	MAKE: Wind Energy
Nov. 1, 2021	I Like to Move It, Move It	Everything Matters	Ecosystem Explorations	Escape Room Robots	Getting Started w/ Coding	DNA Detectives
Dec. 6, 2021	Mini Meteorologist	Engineering Solutions	What's the Matter?	Move it or Lose it	Fetal Pig Dissection	Energetic Contraptions
Jan. 3, 2022	Operation Rainforest	Hunting for Habitats	Frog Dissection	Earth, Moon, & the Great Beyond	Basics of Biochemistry	Advanced Robotics
Feb. 7, 2022	Classifying Critters	Can You Hear Me?	Animal Behavior and Adaptation	Motors, Circuits & Art	Concepts of Chemistry	The Human Body
Mar. 7, 2022	Dig into Earth Science	Weather Watchers	What's the Forecast?	Force & Motion	Take a Cell-fie!	MAKE: Wind Energy
April 4, 2022	I Like to Move It, Move It	Everything Matters	Ecosystem Explorations	Escape Room Robots	Getting Started w/ Coding	DNA Detectives
May 2, 2022	Mini Meteorologist	Engineering Solutions	What's the Matter?	Move it or Lose it	Fetal Pig Dissection	Energetic Contraptions
June 6, 2022	Operation Rainforest	Hunting for Habitats	Frog Dissection	Earth, Moon, & the Great Beyond	Basics of Biochemistry	Advanced Robotics

HOMESCHOOL CLASS DESCRIPTIONS

Pre K

CLASSIFYING CRITTERS

Children will be introduced to some of the Museum's amazing Animal Ambassadors. These lively Museum residents will help guide children's observations and questions as they discover similarities, differences and the defining characteristics of groups of animals.

DIG INTO EARTH SCIENCE

Children will explore the world beneath their feet as they use science tools, including magnets and scales, to measure and describe properties of earth materials. They will determine uses for natural materials and discover living and nonliving things in the soil.

I LIKE TO MOVE IT, MOVE IT

Children will explore the effects of forces, including pushes, pulls and gravity, on the motion of objects by conducting investigations and attempting unique challenges. They will work together to test ways forces can manipulate the motion and position of objects in the classroom.

MINI METEOROLOGISTS

Children will become the scientists as they use tools to develop skills, including measuring, comparing, collecting data and making weather predictions.

OPERATION RAINFOREST

Children will explore the rainforest in Discovery Place Science's World Alive to practice observation skills and compare the plants and animals that call the rainforest home. Children will discuss ways their lives are impacted by the rainforest and how they can help protect it.

Grade 1 – 2

CAN YOU HEAR ME?

Students will conduct investigations to test how vibrations create sound. They will also experiment with changing a sound's pitch and volume.

ENGINEERING SOLUTIONS

Students will follow the steps of the engineering design process by asking questions, gathering information, determining problems and brainstorming solutions. They will test their solutions and discuss improvements as they explore different branches of engineering.

EVERYTHING MATTERS

Students will observe and experiment with different states of matter, including solids and liquids, to determine their distinct physical properties.

HUNTING FOR HABITATS

Students will explore various habitats by testing adaptations and observing specimens to determine where certain plants and animals live and how these organisms are able to survive in each unique habitat.

WEATHER WATCHERS

Students will collect weather data using appropriate scientific instruments. They will then use those qualitative and quantitative measures to describe and predict weather patterns.

Grade 3 – 5

ANIMAL BEHAVIOR AND ADAPTATION

Students will explore a variety of living things and participate in guided-inquiry activities. Live animal encounters enhance the experience.

ECOSYSTEM EXPLORATIONS

Students will discover characteristics of each biome and get up close and personal with live animals.

ESCAPE ROOM ROBOTS

Students will use critical thinking skills to analyze a given problem: their robot is trapped in a room. In order to escape, they must write code, troubleshoot and use computational thinking.

FORCE & MOTION

Students will experiment with Newton's Laws of Motion through a variety of activities, then try and harness those laws in a final team challenge.

FROG DISSECTION

Students will investigate the diverse class of amphibians and get an up-close look at the Museum's cold-blooded vertebrates and how they've adapted to life in various ecosystems.

MOTORS, CIRCUITS & ART

Students discover the parts of a circuit and learn about the role of conductors and insulators. Using the design process, students will collaborate to create Drawbots that will move around and draw freely.

MOVE IT OR LOSE IT

Students will explore the structure and functions of the human skeletal and muscular systems of the human body through a variety of guided inquiry activities and the examination of real human specimens.

WHAT'S THE FORECAST?

Students will use data collection software to analyze wind speed and get an in-depth look at the water cycle and its role in weather patterns.

WHAT'S THE MATTER?

Through a series of hands-on experiments, students will better conceptualize atomic movement in different phases and better understand how density affects objects.

EARTH, MOON & THE GREAT BEYOND

Students will create a scale map of our solar system while learning about our other planets as well as conduct an inquiry investigation on the moon's phases.

Grade 6 – 8

ADVANCED ROBOTICS

Students will complete a series of challenges through robotic automation, including loops and sensor interactions. They will get an introduction to programming logic and problem solving by utilizing LEGO® EV3 robots and Mindstorm software.

BASICS OF BIOCHEMISTRY

Students will explore the biochemistry behind our immune system response.

CONCEPTS OF CHEMISTRY

Calling all future chemists! Students will mix molecules, investigate rate altering chemical manipulations and watch as it all goes out with a bang. Lab safety skills will be reviewed.

DNA DETECTIVES

Students will explore genotypes, phenotypes, alleles and traits to gain a deeper understanding of genes and heredity through a series of guided inquiry experiments and investigations.

ENERGETIC CONTRACTIONS

Students will utilize the design process to test their engineering skills to build a catapult that launches the furthest distance!

FETAL PIG DISSECTION

Students will gain a better understanding of the structure and function of animal bodies and the interdependency of organ systems through the completion of a fetal pig dissection.

GETTING STARTED WITH CODING

More than just lines of code, programming is its own living language that can make robots move, work and dance. Students learn about block coding through programs like Scratch.

MAKE: WIND ENERGY

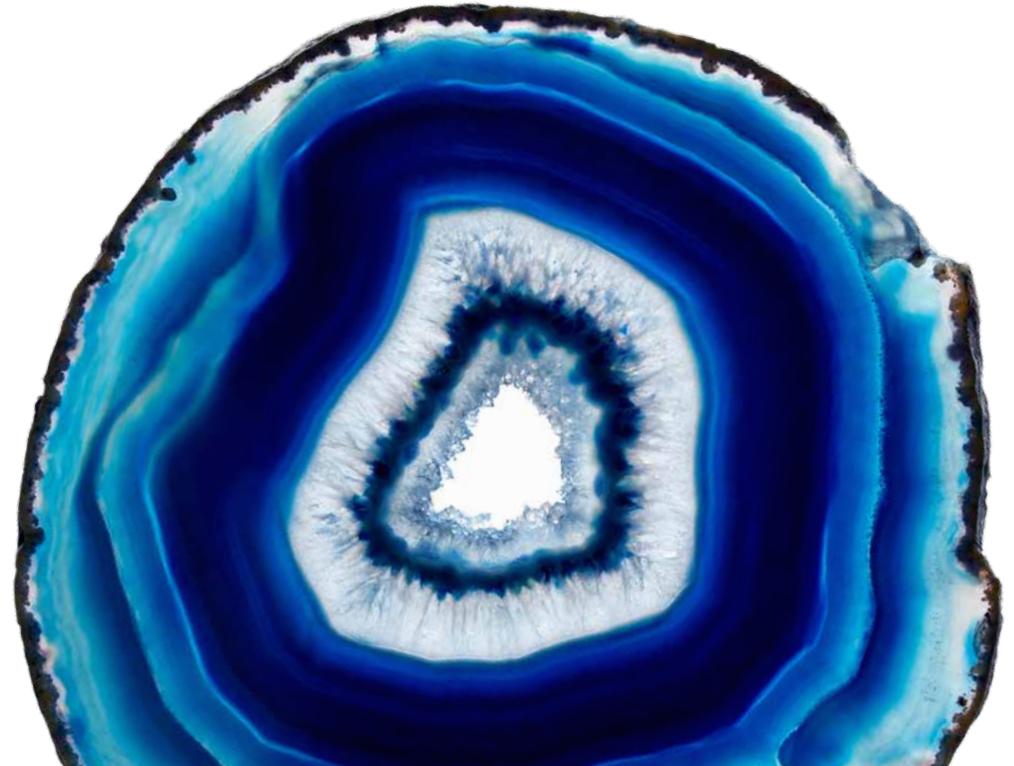
Students will use the design process to build wind turbine blades and attempt to power a light bulb. They will learn about renewable energy sources by taking a closer look at wind energy.

TAKE A CELL-FIE!

Students will learn basic biotechnology skills as they delve into the human cell and its organelles to understand how it all contributes to the basic functions of life.

THE HUMAN BODY

Students will discover the relationship between different body systems using hands-on activities and real human specimens. They will delve into the human body and discover the systems that keep the body working.





DISCOVERY PLACE

SCIENCE | KIDS | NATURE