



2019-2020

HOMESCHOOL SCIENCE CLASSES



Catawba Science Center offers hands-on learning and interactive exhibits that explore physical, natural, and earth sciences.

Homeschool classes offer enriching science opportunities for preschool through high school learners in geology, biology, astronomy, environmental science, and more! Classes are designed to be hands-on, as well as age and science content appropriate.

Catawba Science Center is on the SALT Block at 243 Third Ave NE in Hickory.

www.CatawbaScience.org

Registration Information

Preschool – High School Classes

WHEN:

Pre-K – 8th Grade: Choose the Tuesday or Wednesday in the third week of each month
High School: Wednesdays in the third week of each month*

CLASS TIME:

1:00 PM - 2:30 PM

Dissection Classes

WHEN:

Wednesdays in the third week of each month*

CLASS TIME:

10:30 AM to 12:00 PM

*Tuesday classes may be added if demand is present.

CHECK-IN:

10 minutes prior to class time in the West Education Building lobby (adjacent to the main Arts and Science Center Building).

SIGN OUT:

To ensure student safety, we require that parents go to individual classrooms and sign their children in and out.

COST:

Preschool – 8th Grade:

- CSC Members: \$15 per class (\$120 entire year)
- Non-members: \$25 per class (\$200 entire year)

High School:

- CSC Members: \$20 per class
- Non-members: \$30 per class

DISSECTION:

- CSC Members: \$17.50 - \$24.00 per class as listed (\$160 entire year)
- Non-members: \$27.50 - \$34.00 per class as listed (\$250 entire year)

QUESTIONS:

Please contact Erin Graves, CSC Director of Programs at (828) 322-8169 or programs@catawbascience.org

Registration & Refunds

Payment and registration forms are required to reserve your child's space. Classes will be filled on a first-come, first-served basis. If you need to cancel a registration, you must do so at least two weeks prior to the class date in order to receive a refund, minus an administrative fee of \$5.

Please note, CSC reserves the right to cancel a class (and issue full refunds) if minimum enrollment is not met.

If you sign up for the year, refunds will not be paid for missed programs, unless they are canceled by CSC.

An optional payment plan will allow for installments to be paid throughout the year. \$40 per child and membership, if applicable, must be paid at time of registration. Call (828) 322-8169 for details.

DISSECTION SERIES

ages 13 and up

Enhance your biology curriculum with the following dissections. Classes will focus on classification, adaptations, and comparative anatomy. Students will work collaboratively to investigate their specimen. The strand builds on complexity and skill throughout the year. Specimen fees are included in class prices.

Date	Specimen(s)	Class & Specimen Fee	
		Member	Non Member
Sept. 18	Earthworm/crayfish/grasshopper	\$17.50	\$27.50
Oct. 16	Squid/clam	\$17.00	\$27.00
Nov. 13	Sea urchin/perch	\$17.50	\$27.50
Dec. 18	Snake	\$19.50	\$29.50
Jan. 15	Pigeon	\$18.00	\$28.00
Feb. 12	Dogfish shark	\$18.50	\$28.50
Mar. 18	Cow eye/sheep brain	\$24.00	\$34.00
April 15	Pig heart/sheep lungs	\$21.50	\$31.50
May 13	Fetal pig	\$21.00	\$31.00

1

catawba
science
center

www.CatawbaScience.org



Homeschool Educators take \$10 off Annual Membership purchases!

Membership Application

Mr. Mrs. Miss Ms. Dr. Other

Adult #1 Name _____

Mailing Address _____

City _____ State _____ Zip _____

Phone _____

Email _____

Mr. Mrs. Miss Ms. Dr. Other

Adult #2 Name _____

Full Name(s) & Birthdate(s) of Child(ren)

This membership is: Renewal New Gift

If gift membership:

Gift From _____

Recipient Name _____

Mailing Address _____

City _____ State _____ Zip _____

Phone _____

Email _____

Membership Level: (check one)

- | | |
|---------------------------------------------|----------------------------------------------------|
| <input type="radio"/> College Student, \$45 | <input type="radio"/> Stellar Society, \$500+ |
| <input type="radio"/> Senior, \$45 | <input type="radio"/> Angel, \$1,000+ |
| <input type="radio"/> Individual, \$60 | <input type="radio"/> President's Circle, \$2,500+ |
| <input type="radio"/> Grandparent, \$75 | <input type="radio"/> Philanthropist, \$5,000+ |
| <input type="radio"/> Family, \$75 | <input type="radio"/> Altruist, \$10,000+ |
| <input type="radio"/> Patron, \$100+ | <input type="radio"/> Corp. Member Upgrade, \$20 |
| <input type="radio"/> Benefactor, \$250+ | |

I'd like info on

- | | |
|------------------------------------|-------------------------------------|
| <input type="radio"/> EVENTS | <input type="radio"/> B-DAY PARTIES |
| <input type="radio"/> HOMESCHOOL | <input type="radio"/> CAMPS |
| <input type="radio"/> SCHOLARSHIPS | <input type="radio"/> VOLUNTEERING |

**To receive \$10 educator discount, valid ID is required at the time of purchase. For independent home educators, please provide a copy of "Intent to Home School" form submitted to your local school district. Membership cost will be added to total on registration form.*

we believe in lifelong learning and the potential of curiosity.

HICKORY MUSEUM OF ART
 243 3rd Ave NE
 Hickory, NC 28601
 828.327.8576
 www.hickoryart.org

2019-2020 EXHIBITIONS SCHEDULE

THE ART OF ADVENTURE: Photographs & Artwork from the World Travels of Jeff Cline
 August 24 – January 4, 2020

HOW CREATIVITY HAPPENS
 September 7, 2019 - January 5, 2020

PAUL de LONGPRÉ STILL LIFES
 January 11-March 15 2020

COLLECTING AND CREATING: Juan Logan's Sources of Inspiration
 January 18, 2020 - May 20, 2020

73rd ANNUAL PAUL WHITENER STUDENT ART SHOWS
 Elementary: March 21 - April 5, 2020
 Middle/High School: April 9 - 26, 2020

Visit hickoryart.org/educators for more details or contact Ginny Zellmer at 828.327.8576, ext. 207 or gzellmer@hickoryart.org.



Science Class Descriptions

Pre-K – Kindergarten

September 17-18: **Bubbly Science**

Experiment with bubble-making and create a bubble-art masterpiece. The fun will bubble over!

October 15-16: **Simple Machines**

Find out how simple machines make our work easier. Explore gears and make things move.

November 12-13: **Into the Deep Blue Sea**

Discover the animals that live under the waves. Make an ocean in a baggie. Discover which male sea creature carries the babies.

December 17-18: **Wonderful Weather**

Discover the power of the sun, the importance of rain, why the wind blows, and how it snows. Make your very own weather chart to take home!

January 14-15: **Who Lives in the Desert?**

Explore the animals and plants that live in the sand, including a tarantula and lizard. Make a cactus to take home.

February 11-12: **Build It**

Hey junior engineers! Get creative using unusual construction materials including popcorn, toothpicks, gumdrops, and beyond.

March 17-18: **Air, Air All Around**

Experiment with air and the many things it can do. Make your own windsock

April 14-15: **Slimy Simple Science**

Find out how to do some fun, slimy science at home. Make no-cook play dough, sidewalk chalk, slime and more!

May 12-13: **Animals in the Sky**

Bring your favorite stuffed animal then let's find it in the night sky in the Millholland Planetarium! Listen to stories and look for shapes and colors up above.

1st – 3rd Grade

September 17-18: **Seashore Creatures**

Get to know the invertebrates that live along the seashore. Visit our touch tanks for an up close look!

October 15-16: **Autumn Leaves**

Explore the many colors of fall and the science behind this change.

November 12-13: **Color my World**

Use prisms and lenses to investigate color and light. Build your own kaleidoscope.

December 17-18: **Swoosh!**

Explore properties of wind using the book *Mirandy and Brother Wind*. Create a car that moves by your lung power.

January 14-15: **Mighty Machines**

Pulleys, levers, and screws – oh my! Investigate simple machines and put your new knowledge to the test.

February 11-12: **Wild Weather Ride**

Explore all things weather-related on our planet and others too. Watch *Zula Patrol: Under the Weather* in the Millholland Planetarium

March 17-18: **Play Dead 'Possum**

Discover the fascinating attributes and behaviors of this nocturnal creature.

April 14-15: **Our Universe**

Travel around the solar system and see the Milky Way in the Millholland Planetarium. Learn about planets, the moon, and our nearest star.

May 12-13: **Fun With Food**

Experiment with the things you eat and learn about nutrition. Make healthy snacks to enjoy.

4th – 6th Grade

September 17-18: **Science Skills**

Discover the properties of liquids and learn the scientific method while experimenting with water. Make a magic star!

October 15-16: **Bug Off!**

Dissect a grasshopper and learn many buggy facts.

November 12-13: **Toying Around**

Experiment with toys and make discoveries about convection, conduction, and radiation. Find out about the law of conservation of energy.

December 17-18: **The Essence of Bioluminescence**

Experiment with cool blue light. Watch *Into the Deep* in the Millholland Planetarium and learn truly illuminating facts about underworld sea creatures.

January 14-15: **Lights and Lenses**

Uncover the properties of light and color. Experiment with polarized light and lasers.

February 11-12: **What's In a Cell?**

Put your microscope and lab skills to the test to examine cells up close. Extract real DNA and take it home!

March 17-18: **Moon Mania**

Learn about the moon and its phases. What does the surface of the moon look like? What do other moons in the solar system look like? Find out in the Millholland Planetarium.

April 14-15: **Ribbet, Ribbet**

Dissect a frog and discover fascinating amphibian facts. Additional specimen fee of \$3.00 required.

May 12-13: **Dendrology 101**

Do trees have veins and scars? Use field guides and scientific keys to identify trees. Discover how tree rings can tell us more than just their age.

Science Class Descriptions

7th – 8th Grade

September 17-18: **The Name Game**

Kingdom, phylum, class, order — where do you fit in? Learn the science of taxonomy.

October 15-16: **Reptile Round-up**

What makes an animal a reptile? How do snakes differ from lizards? Get ready for some scaly encounters.

November 12-13: **It's Elementary**

The periodic table is elementary. Use molecular models and play games while learning about atoms, elements, and compounds.

December 17-18: **Dry Ice Investigations**

Gain an understanding of matter, the nature of gases, and phase changes by experimenting with bubbling, mysterious dry ice. Brrr!

January 14-15: **Discover Astronomy**

Investigate the formation of galaxies, stars, and planets. Watch Stars: Powerhouses of the Universe in the Millholland Planetarium.

February 11-12: **Waves, Waves, Waves**

Investigate sound, light, and seismic waves through hands-on experiments using lasers, tuning forks, and toys.

March 17-18: **Inside a Cell**

Observe the differences between plant and animal cells. Perform a DNA extraction and look at the stuff that makes organisms unique!

April 14-15: **Chromosomal Shuffle**

Review the basics of Mendelian genetics and learn about the science of inherited traits.

May 12-13: **May the Force Be With You**

Experiment with Newton's Three Laws of Motion relating to force, mass, and acceleration. Learn the "magic" of the tablecloth yank.

High School – Biology

September 18: **Biomolecule Testing Lab**

Perform tests to identify the four major classes of biological molecules.

October 16: **Microscopic Life**

Learn the proper use of a compound light microscope. Observe protozoa, algae, and invertebrate organisms in pond water, as well as living specimens of *Amoeba*, *Paramecium*, and *Euglena*.

November 13: **Cell Structure and Function**

Investigate basic cell structure and the cellular functions of osmosis and diffusion. Compare cells of plants, animals, and bacteria.

December 18: **DNA Detective**

Perform a DNA extraction and take a sample home! Put together a DNA puzzle and make your own model.

January 15: **Unzipping DNA**

Delve into the science of DNA replication and cell division. Observe mitosis microscopically in an onion root tip and whitefish.

February 12: **Biotechnology Basics**

Learn how biotechnology is used in real world scenarios. Experiment with micropipetting and gel electrophoresis.

March 18: **Lock and Key Science**

Learn how enzymes act as biological catalysts in nature. Perform several experiments and discover for yourself why enzymes are such a vital part of biology.

April 15: **Plant Parts**

Stems, roots, leaves, and much more. Hone your skills and use your knowledge of botany to solve a mystery. Perform a leaf disk assay to observe photosynthesis in action.

May 13: **Ramblings in Nature**

Break out binoculars and field guides and immerse yourself in the ecosystem at Glenn Hilton Park. Join our Naturalist to identify trees, flowers, and insects. Sharpen your senses as you try to identify birds by sight and sound.



CSC Homeschool 2019-2020 Registration Form

Pre-K – 8th Grade Classes

Please use a separate form for EACH child registering. Photocopies are acceptable, or download additional forms at www.CatawbaScience.org. Return completed form with payment to: Catawba Science Center, PO Box 2431, Hickory, NC, 28603, or fax to (828) 322-1585.

Child's name _____ M__ F__ Birthdate (mo./day/yr.) _____ Grade _____

Parent(s)/Guardian(s) _____

Primary phone _____ Is this: Home ___ Work ___ Cell ___

Secondary phone _____ Is this: Home ___ Work ___ Cell ___

Address _____ City _____ State ___ Zip _____

E-mail _____

CSC Member? Y__ N__ (see pg. 3) Exp. Date _____ *Family membership must remain valid through May 31, 2020.*

Other individuals allowed to pick up your child(ren): _____

___ I hereby consent and authorize Catawba Science Center to use and reproduce any photographs of my children for promotional purposes or otherwise.

Class Selections: Please circle Tuesday or Wednesday date

Sept. 17, 18 Oct. 15, 16 Nov. 12, 13 Dec. 17, 18 Jan. 14, 15

Feb. 11, 12 March 17, 18 April 14, 15 May 12, 13

___ Entire year option, Tuesday or Wednesday (*please circle your day of choice*)

Class Cost:

CSC Members: \$15 per class, \$120 per year

Non-members: \$25 per class, \$200 per year

Payment Method:

___ Check enclosed ___ Please call for information:

Charge my ___ Visa ___ Mastercard ___ Discover

Name on card _____

No. _____ Security Code _____

Exp. date ___/___/___ Signature _____

___ I would like to participate in CSC's payment plan.

If choosing payment plan, \$40 per child and membership, if applicable, is due at time of registration.

Signature _____ Date _____

\$ _____	Classes subtotal
\$ _____	Fee subtotal
\$ _____	Apply membership
\$ _____	Grand Total

Refund policy: A refund minus an administration fee of \$5 will be issued if you cancel at least two weeks in advance. Cancellations made within two weeks of a class will not receive a refund. CSC reserves the right to cancel any programs in the event that minimum class enrollments are not met. If this occurs, your payment will be refunded fully.

Medical Information: (Completion required)

Emergency contact (if parent can't be reached) _____

Primary Phone(s) _____

Health/Accident Insurance: Employer _____ Insurance Co. _____ Policy # _____

Name of Insured _____ Dr. _____ Phone _____

Currently on any medications? If so, please list and describe schedule for emergency administration. Include any asthma or allergy medications. If there are medications that must be administered by CSC staff, written directions must be sent.

Allergies _____ Medications _____

I, _____, do hereby authorize CSC staff to act on my behalf in seeking any medical treatment or medicine for my son/daughter, _____, during the 2019-2020 homeschool program.

Signature _____ Date _____



CSC Homeschool 2019-2020 Registration Form

High School Biology and Dissection Classes

Please use a separate form for EACH child registering. Photocopies are acceptable, or download additional forms at www.CatawbaScience.org. Return completed form with payment to: Catawba Science Center, PO Box 2431, Hickory, NC, 28603, or fax to (828) 322-1585.

Child's name _____ M__ F__ Birthdate (mo./day/yr.) _____ Grade _____

Parent(s)/Guardian(s) _____

Primary phone _____ Is this: Home ___ Work ___ Cell ___

Secondary phone _____ Is this: Home ___ Work ___ Cell ___

Address _____ City _____ State ___ Zip _____

E-mail _____

CSC Member? Y ___ N ___ (see pg. 3) Exp. Date _____ *Family membership must remain valid through May 31, 2020.*

Other individuals allowed to pick up your child(ren): _____

___ I hereby consent and authorize Catawba Science Center to use and reproduce any photographs of my children for promotional purposes or otherwise.

Class Selections: *Biology, Please circle your choices.*

Sept. 18 Oct. 16 Nov. 13 Dec. 18 Jan. 15

Feb. 12 March 18 April 15 May 13

Class Selections: *Dissection series, Please circle your choices.*

Sept. 18 Oct. 16 Nov. 13 Dec. 18 Jan. 15

Feb. 12 March 18 April 15 May 13

Check if able to switch into Tuesday classes ___Y ___N

Payment Method:

___ Check enclosed ___ Please call for information:

Charge my ___ Visa ___ Mastercard ___ Discover

Name on card _____

No. _____ Security Code _____

Exp. date ___/___/___ Signature _____

___ I would like to participate in CSC's payment plan. *If choosing payment plan, \$40 per child and membership, if applicable, is due at time of registration.*

Medical Information: *(Completion required)*

Emergency contact (if parent can't be reached) _____

Primary Phone(s) _____

Health/Accident Insurance: Employer _____ Insurance Co. _____ Policy # _____

Name of Insured _____ Dr. _____ Phone _____

Currently on any medications? If so, please list and describe schedule for emergency administration. Include any asthma or allergy medications. If there are medications that must be administered by CSC staff, written directions must be sent.

Allergies _____ Medications _____

I, _____, do hereby authorize CSC staff to act on my behalf in seeking any medical treatment or medicine for my son/daughter, _____, during the 2019-2020 homeschool program.

Signature _____ Date _____

High School Biology Classes:

CSC Members: \$20 per class

Non-members: \$30 per class

Dissection Classes - Cost per year:

CSC Members: \$160

Non-members: \$250

Individual class prices listed on pg. 1

\$ _____	Classes subtotal
\$ _____	Apply membership
\$ _____	Grand Total

Refund policy: A refund minus an administration fee of \$5 will be issued if you cancel at least two weeks in advance. Cancellations made within two weeks of a class will not receive a refund. CSC reserves the right to cancel any programs in the event that minimum class enrollments are not met. If this occurs, your payment will be refunded fully.



Nonprofit
U.S. Postage
PAID
Permit No. 173
Hickory, NC

On the SALT Block
243 Third Avenue NE
Hickory, NC 28601

RETURN SERVICE
REQUESTED

www.CatawbaScience.org

Changing Lives and
Inspiring Learning
Through Science
and Wonder.

