

hightouch hightech

Science Made Fun!

Committed to Increasing Scientific and Technological Literacy™

Elementary Brochure

www.ScienceMadeFunATL.net

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770-667-9443

**Designed to Meet
the Georgia
Standards of
Excellence**

**Serving Greater
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30 Years, with
Student
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Million!**

**In-school
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**HANDS ON
SCIENCE**

**Programs
align with
GSE**



**The Nation's
leading science
experience that
comes to you!**



Physical Science

- Balancing Act
- Edison's Workshop
- Fabulous Forces
- Finally Fun Machines
- Force, of Course!
- Matter Matters
- Magnet Makers
- Me and My Shadow
- Power of Light
- Sounds Like Fun
- The Heat is On
- Vibes
- Whatever Floats Your Boat
- What's the Matter

Life Science

- CELL-berate
- Circle of Life
- Eat AND Be Eaten
- Georgia-ology
- Get Buggy
- No Bones About It
- Let's Make Sense
- Our Living Planet
- Smarty Plants
- My Green Earth

Beyond the Standards

- Brain Buzz
- Chem Fun
- Dissection Connection
- The Real McCoy
- We Do WeDo™ LEGO® Robotics

Earth / Space Science

- Cosmic Capers
- Dig It!
- Fossil Fun
- Geologica
- Meteorology Madness
- Rock and Roll
- Space, the Final Frontier
- Weather or Not
- What's Up?

Black History Month

- The Real McCoy

**SCIENCE
that
comes
to you!**



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Let's Make Sense (K)

A great introduction to scientific inquiry as young scientists use all 5 senses to make observations. Measuring sound with our ears, "smelling bees" with our nose, taste tests with our tongues, and testing our touch bags for a little sight-free sorting are just the beginning! **SKP1**

What's Up? (K)

Amateur astronomers learn all about *What's Up* in the sky during the day and night! Make and take-home sundials to simulate the world turning. Experience the power of the Sun's energy when you make and take home your own solar powered bracelet. Measure shadows as they change throughout the day and safely view the Sun itself! (Program subject to alterations due to weather.) **SKE1**

Rock and Roll (K) *

Young geologists will observe, sort, and classify rocks as they learn real geology terms! Get the EARTHY facts about different soil types: sand, clay, and loam. Kindergarteners will know that SCIENCE ROCKS as they pan for their own minerals and crystals to take home! **SKE2**

***Due to market value increases, a premium supply charge will apply

Fabulous Forces (K)

How do objects move or stop moving? In what directions do they move: zigzag, circular, straight? Learn the science behind some of your favorite toys and see for yourself! By rolling, pushing, pulling, and dropping, your students will explore motion and gravity in action. Marbles, balls, tops, cars, and tracks allow the physics playground to come to life in your classroom. (Program is arranged in 5 centers.) **SKP2**

Our Living Planet (K)

The budding biologists will investigate the characteristics of different living things on our Earth including plants and animals. Students will discover how scientists sort and classify living things based on their attributes. Even touch living bugs and once living dinosaur fossils in this fun-filled program! (Program is arranged in 5 centers.) **SKL1, SKL2**

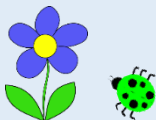
Whatever Floats Your Boat (K)

In this fantastic physics program, students will focus on floating and sinking boats, balloons, and more. Watch as we separate marker colors by weight and take home a chromatography bookmark. All this and more as we use our senses and scientific tools to classify and test the physical attributes of common objects. (Program is arranged in 5 centers.) **SKP1**

Get Buggy (K-2)

Creepy, crawly, weird, and wacky. Discover the incredible life of insects and arachnids. From egg to adult, journey through the life cycle of butterflies, bees, and beetles. Explore the role of pollinators and help BeeBot®, the bee robot, make it to the flowers! This program will have every child amazed as they dare to touch real LIVE bugs! (Program is arranged in 5 centers.)

SKL1, SKL2, S1L1, S2L1



Smarty Plants (1)

Get all the SEEDY facts on the parts of a plant as we dissect a real flower! Use your senses to touch, even smell, as we compare leaves and seeds by size, shape, and structure. Help Botley® The Botanist robot in his Botanical Garden learn what plants need to survive! Make and take home a terrarium. (Program is arranged in 5 centers.) **S1L1**

Sounds Like Fun (1)

TUNE IN and feel the VIBRATIONS as we make waves and discover the science of sound. Listen to different pitches using palm pipes and assemble a string instrument to keep. Identify sources of sound, use a model eardrum, make salt dance, and water fly! **S1P1**

Me and My Shadow (1)

Discover differences between natural and artificial light sources. Identify sources of ultraviolet light using UV beads and make your own UV bead bracelet to take home! What makes a shadow? Why do shadows change size? Can we make colored shadows? Answer these questions and more while exploring with shadow puppets. **S1P1**

Magnet Makers (1)

Get ATTRACTED to the magnificent world of magnets. Discover magnetism as we use repulsion to push magnetic cars and make rings float. Transfer magnetism through water, wood, and other media. May the "FORCE FIELD be with you" as we use electromagnets and learn about ways to make a magnet. (Program is arranged in 5 centers.) **S1P2**

Weather or Not (1)

Travel through the water cycle as we touch a real cloud and discover types of weather. Get an introduction to weather instruments: thermometers, rain gauges, weathervanes, and anemometers. Discover the importance of air pressure with tornado tubes and barometers. Explore the 4 seasons as we look at weather patterns and identify seasonal changes. (Program is arranged in 5 centers.) **S1E1**

Matter Matters (2)

Discover what "matters" as we explore the physical properties of matter. Use balance scales to measure the mass of common objects. Feel and describe the physical properties of unknown objects and build new structures by rearranging the same components again and again. See the difference as we experiment with reversible and irreversible changes. (Program is arranged in 5 centers.) **S2P1**

Space, The Final Frontier (2)

Move through space as we explore the size, motion, and brightness of stars. Discover why the Moon changes in appearance as we revolve individual moons around the Earth. Track the position of the Sun with your own sundial that you make and take home. Who says you can't see outer space during the daytime? Now you can while using our iPads to explore celestial objects near and far! (Program is arranged in 5 centers.) **S2E1, S2E2**

Circle of Life (2)

Explore the life cycles of both plants and animals while learning biology basics. Plant the seeds of knowledge as we make our own terrariums to take home. Explore the role of Pollinators and help BeeBot®, the bee robot, make it to the flowers! (Program is arranged in 5 centers.) For an alternate program option, see GET BUGGY [K-2] **S2L1**

Force, Of Course! (2)

What is a force? A push or a pull, of course! You'll make a commotion of motion in your classroom as you push, pull, roll, slide, and spin objects to discover the path of motion. Plus, design an experiment to collect data on how friction and gravity affect speed. (Program is arranged in 4 centers.) **S2P2**



My Green Earth (3)

Help keep our Earth "green" by investigating the harmful effects of land, water, air, and human pollution. Students will discover how pollution affects our keystone species through experiments conducted with robots, water testing, and more. This eco-friendly program is sure to bring renewed life to the phrase Re-duce, Re-use, Re-cycle. **S3L2**

Fossil Fun (3)

Travel back in time and uncover prehistoric scientific secrets. Learn firsthand how fossils are formed. Dig up the past using authentic fossils, replicas, and models. Mold-making, rubbing, and imprinting are exciting ways to uncover facts about plants and animals that have become extinct. Excavate and take home your own fossil collection! (Program is arranged in 4 centers.) **S3E2**

The Heat is On (3)

Energy is the HOT topic in this program as we identify heat sources and use them in our experiments. Observe and measure the rate of the sun's effects on light and dark materials. Test heat transfer with radiometers and liquid crystal paper. "Conduct" experiments with both liquid and digital thermometers. Even take home a heat-sensitive bookmark! **S3P1**

Georgia-ology (3)

An all-out study of Georgia's geology, biology, botany, and paleontology. From mountains to marshes, learn to identify native plants and animals found within Georgia's habitats and how they have adapted to thrive in each region. Learn the importance of protecting our environment and take home Georgia's state fossil: the shark's tooth. (Program is arranged in 4 centers.) **S3L1, S3L2**

Dig It! (3) *

An experience that totally ROCKS! Pan for real gemstone minerals to take home! Investigate the physical properties that make minerals, rocks, and soils unique through a series of classification tests. Watch as we simulate the breaking down of rocks through weathering and erosion. Become a real geologist by using a dichotomous key for common rocks found in Georgia. (Program is arranged in 4 centers) **S3E1**

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Finally Fun Machines (4)

Finally, a hands-on and FUN program on machines! Meet the Facilitator: our cool, multi-faceted compound machine. Engage in pulley power, lifting levers, and incline plane plunges as we build one big machine with all six simple ones. Become "energized" as we "work" through potential and kinetic energy. (Students work in groups of 3.) **S4P3**

Balancing Act (4)

Balanced or unbalanced, that is the question. See what happens when forces in nature are out of balance. Set into motion experiments guaranteed to show the difference. Explore how forces affect motion by using balance scales, gyroscopes, and even becoming a human launch pad for water rockets. (Program is arranged in 4 centers. Program subject to alteration due to weather.) **S4P3**

Vibes (4)

Catch a sound wave as we learn how the strength and speed of vibrations change sound. Test how sounds travel through different materials in your classroom. Study how your ears work and how to keep them safe while measuring classroom sounds with our decibel meters. **S4P2**

Power of Light (4)

Students will study the power of light as they reflect on the world of visible energy. Meet "ROYGBIV" using prisms to separate light and discover the electromagnetic spectrum. Experiment with refraction using concave and convex lenses, and then sit back and enjoy a laser light show. Take home an optical illusion that confuses the eyes and teases the brain! **S4P1**

Eat AND Be Eaten (4)

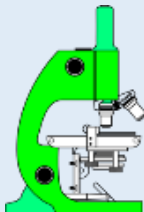
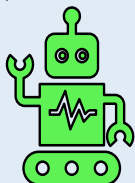
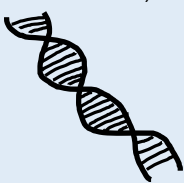
Connect the web... the food web, that is! Design and illustrate the flow of energy through producers, consumers, and finally, decomposers. Examine how changes to the environment affect the flow of energy through an ecosystem. Become a wildlife ecologist and dissect owl pellets to discover the feeding habits of a barn owl. Ooh & Aah as you observe and touch the skulls of different consumers. **S4L1**

Cosmic Capers (4)

Voyage into outer space to discover the planets, stars, nebulae, and black holes that define our universe. Become a planet as we mimic the motion and position of the Earth and Moon. Use telescopes, iPads, and Virtual Reality to explore the Cosmos. Make and take home your own Star Finder. (Program is arranged in 4 centers) **S4E1, S4E2**

Meteorology Madness (4)

Learn how the flow of energy drives the water cycle. Use real weather instruments to measure temperature, barometric pressure, humidity, wind speed, and wind direction. Make and take home your own windsock. (Program is arranged in 4 centers.) **S4E3, S4E4**



No Bones About It (5)

Learn the "bare bone facts" about comparing and contrasting organisms. Get hands-on with skulls, Microslides, X-rays, and more! Put your classifying skills to the test and pick a shark tooth fossil to take home! It's ok to be spineless as we explore the world of invertebrates. Touch our LIVING invertebrates, if you DARE! (Program is arranged in 5 centers.) **S5L1**

What's the Matter (5)

Experiment with changes in matter as we discover the traits of mass and volume. Perform chemical changes as we mix acids and bases. See chemicals separate while making your own chromatography bookmark to take home! Taste how cool physical changes can be by making homemade chocolate ice cream! **S5P1**

CELL-ebrate (5)

Become a cell biologist as we extract banana DNA and even take home a sample! Discover the differences in plant and animal cells and investigate microorganisms using microscopes and microslides. Explore your inherited traits versus those that you've acquired. Try not to get grossed out as we reveal where germs are hiding and if hand sanitizer really works! (Program is arranged in 4 centers.) **S5L2, S5L3, S5L4**

Geologica (5)

Get the facts on how natural phenomena formed and still affect the geology of your own backyard. See how constructive and destructive forces shaped and continually reshape the world. "Construct" an experiment to model weathering, erosion, and deposition. Have fun modeling the movement of plate tectonics as we make science putty to take home. **S5E1**

Edison's Workshop (5)

Stay "current" with this electrifying program as we study natural and human-harnessed energy. Students will explore the connections between electricity and magnetism as they create an electromagnet and use an electromagnetic crane. Find out why insulators and conductors are crucial in a circuit. (Program is arranged in 5 centers.) **S5P2, S5P3**

Beyond the Standards

Chem Fun (K-2)

Find out how FUN making observations and predictions can be through chemistry. Learn the basics of chemistry and safety. Practice describing physical properties as we STRETCH our science putty and our imaginations. See chemical reactions come alive as we erupt volcanoes. Watch colors change as we make our own color chromatography bookmark.

Dissection Connection *

Learn the basics of biology through taxonomy and the dissection of an invertebrate and vertebrate! Dissect worms and frogs to see how biologists have gathered information on the true inner workings of living things. Working in small groups with safe tools, participants will see first-hand how tissues, organs, and organ systems work together.

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We Do WeDo™ LEGO® Robotics

See the connection between machines and robots. Students build robotic mechanisms using Lego® WeDo™ kits and program them using specialized software and laptops we bring. Participants observe mechanics between the motors, gears, pulleys, cams, and levers and the motion of their "robots." A great extension of the study of machines.

The Real McCoy

Join us as we discuss several influential African-American scientists and their incredible contributions to engineering, astronomy, medicine, and more! Our experiments will bring together history and science as we honor their great scientific achievements.

Brain Buzz

Enhance and enrich your biology unit as we map the anatomy and physiology of the brain. Use tools to measure the skull size of different quadrupeds. Touch REAL brains, eyes, hearts, kidneys, and stomachs...IF YOU DARE! Trick your optical senses with our illusions to take home!!

- Programs will be completed in one or multiple days, depending on total student enrollment and the number of classes
- We can present in a science lab, spare room, media center, or your classroom.
- High Touch-High Tech® provides all equipment and materials for this supply-intensive educational experience.

70-90minute Program duration

Max number of students per session is 35

-In one day, we can conduct:

- Two to four 70minute sessions (approx. 60-100+ students)
- Two to three 90minute sessions (approx. 60-75+ students)
- Preferably, the program is conducted in one room, but can move rooms if times permits
 - Examples include:
 - 2-4 sessions (one day, 60-100+ students), 5-8 sessions (two days, 120-200+ students), 9-12 sessions (three days, 180-300+ students)

(60 student per day minimum charge)



Total students	# of Classes (can combine classes for fewer sessions)	Largest class size	Price (per student)	Title 1 Price (per student)	Supply charge (\$35 X #of days)	TOTAL
			\$10.50	\$10.25		

45-55minute Program duration

Max number of students per session is 35

-In one day, we can conduct:

- Two to five 45-55minute sessions (approx. 70-125+ students)
- The program must be conducted in one room
 - Examples include:
 - 2-5 sessions (one day, 70-125+ students), 6-10 sessions (two days, 140-250+ students), 11-15 sessions (three days, 210-375+ students)

(70 student per day minimum charge)

Total students	# of Classes (can combine classes for fewer sessions)	Largest class size	Price (per student)	Title 1 Price (per student)	Supply charge (\$35 X #of days)	TOTAL
			\$9.50	\$9.25		

- A premium supply charge will apply to programs with an *
- A travel fee may apply to schools outside our service area

- A deposit may be required to hold program dates
- Credit card payments will include a service charge

Parents or the PTA / PTO usually pay the program cost. Schools currently receiving outside grants may use them for High Touch-High Tech programs.

Teachers, administrators, principals & students agree on our value:

"I loved this program and how it's directly aligned to the standards. The kids were engaged during the entire program!"
-- Ms. M Whatley
Shelton Elementary,
Dallas, GA

"This was our best Chem Fun ever in 13 years! Our scientist was knowledgeable, had great control of the kids and she kept their interest!"
-- Ms. Susan Blackman & Kathy Seagrave
Mt. Bethel Elementary,
Marietta, GA

"My students love to have the scientist in the classroom. The activities were excellent. Thank you for the time you put in. My students will remember these activities for the rest of their lives."
-- Ryan Zajdel
Sharon Elementary,
Cumming, GA

HTHT has been a visitor at our school for many years. Each program I have witnessed has been fun and informative
-- Ms. R. Barry
Mt. Bethel Christian Academy
Marietta, GA

"The children had a great time interacting with the presentation. This is an ESOL population, and one student said, 'This is a great day in my life!'"
-- Ms. Diana Beverly
Lilburn Elementary,
Lilburn, GA

"It is almost overwhelming with the amount of information presented. It was the best field trip that I ever had the pleasure to participate in. Thank you!"
-- Ms. Amy Bruns
Alpharetta Elementary,
Alpharetta, GA

"Excellent! Fits our Standards perfectly! Kids loved it so much!"
-- Ms. Victoria Sinco
Sixes Elementary,
Canton, GA

"Wonderful program! The children were engaged the entire time. We really got our money's worth! I would recommend the program to anyone and everyone!"
-- Ms. Millie Johnson
Fairington Elementary,
Decatur, GA

"Our school (teachers, parents and students) love High Tough-High Tech! Our students learn the most from these field trips. Each year we book 4 trips for our third grade."
-- Ms. Lisbeth Fay,
Mt. Paran Christian School,
Kennesaw, GA

"This was excellent! It took the students to the next level. Students were engaged and had fun. The scientist was amazing!"
-- Ms. Hannah Daves
Gilbert Elementary
Lafayette, GA

"Instructions were very clear, great interaction between instructor and kids. The kids said, 'This is awesome!' and 'Wish we could do this all the time!'"
- Ms. Savannah Norman
Immaculate Heart of Mary School, Atlanta, GA

READY TO BOOK?

Please be ready to provide:

1. # of classes, class sizes, & total students
2. Program and Dates requested
3. Program duration selection

Looking for Digital Learning Days?

Check out our **ONLINE PROGRAMS** brochure on our website!

- Pre-Recorded videos starring our beloved HTHT Scientists and cover several GSE in approx. 25-28 mins.
- Corresponding kits with 2 individually packaged experiments per student.