

## **HISTORICAL DOCUMENTATION OF STEAM LEGACY GRANT RECIPIENTS AND PROJECTS**

### **2018-2019 STEAM LEGACY GRANT RECIPIENTS AND PROJECTS**

#### **Dunwoody Springs Elementary – After-School STEAM Club**

The funds will be used to initiate an after-school STEAM Club. The club will enhance student understanding of the Next Generation Science Curriculum in grades 3 through 5 via hands-on activities, field trips, guest speakers and community involvement. The club's focus will augment the school curriculum with project-based learning opportunities for students and help expand the school's participation in community-based initiatives. The club will work in close cooperation with the existing Drone Clubs at Dunwoody Springs Elementary and Sandy Springs Charter Middle School, as well as build a team to participate in the Math Hound Bowl, Science Olympiad and Fulton County Science Fair.

#### **Heards Ferry Elementary – Building Robots from Scratch!**

To expand on the first year success of the STEM Robotics Program, the grant funds will be used to change incorporate arts into STEM programs. Art and science will combine to create a curriculum that infuses art and creativity into building robots. Students in grades 3 through 5 will receive Hummingbird Robotics kits (along with Scratch as their programming tool) and will be challenged to make original pieces. The goal will also be to increase the number of students entering the county technology competition with their original projects.

#### **High Point Elementary – Math Hound Bowl**

The grant funds will be used to continue an annual math competition event sanctioned by Math Olympiads for Elementary and Middle Schools (MOEMS). The 2018 "Hound Bowl," entering its third year, will involve 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>-grade student teams from Sandy Springs elementary and middle schools. Students will increase their math proficiency through practice during the school year as they prepare for the rigor of the competition as individuals and as collaborative team members.

#### **Ison Springs Elementary – Coding Club**

Grant funds will be used to support the after-school Coding Club where students in grades 3 through 5 will learn basic coding skills to lead robots through a set of tasks. Students will learn how to use the software, practice computer skills and guide their robotic vehicles. Students will be immersed in inquiry-based and exploratory learning as part of the process, while also strengthening their collaborative work skills aligning with the school's Project Based Learning (PBL) focus.

#### **Lake Forest Elementary – After-School STEAM Club**

The grant funds will be used to continue the after-school STEAM Club. The club will enrich student understanding of the Next Generation Science Curriculum in grades 3 through 5 through hands-on activities, guest speakers, field trips and community involvement. The club will focus on inspiring student interest in STEM fields, develop STEM skills and create excitement about STEM careers.

#### **Spalding Drive Elementary – Full STEAM Ahead**

The grant funds will be used to continue STEAM after-school clubs for 4<sup>th</sup> and 5<sup>th</sup> grade students. In the Coding Club, students will code Lego Mindstorm robots to move, make sounds and light up. In the Art Club, students will collaborate and create artwork to display at school and at the STEAM Showcase. The

grant funds will also allow for the start of a new Drone Club where students will learn to code and fly drones through various obstacles.

#### **Woodland Elementary – Woodland Drone Club**

Students in grades 3 through 5 will learn about the various applications of drones and then apply that knowledge to program devices using the Tickle app on iPads. Students will complete various projects. For example, they will fly the drone over a disaster scene made of Lego structures to learn about the concepts of flight and disaster management. They will also use the drones to create high tech games, learn new math skills and learn about natural and technological science while sharpening estimation skills. Students will learn and reinforce content skills through interactive, hands-on projects while solving real-world problems.

#### **Ridgeview Charter Middle School – Music Meets Physics with Beats Makers Lab**

The grant funds will be used for STEM/STEAM workshops focusing on the physics of sound and music using littleBits. Students in grades 6, 7 and 8 will explore the rhythmic pulsing of sound – a phenomenon called beats in the world of physics. Students will hear and see beats using the littleBits modules from the Synth Kid and the Arduino models and discover the differences in waveforms and understand the characters of waveforms.

#### **Sandy Springs Charter Middle School – Lend a Hand and Drones for Good Clubs**

**Lend a Hand:** Grant funding will support 7<sup>th</sup> grade students learning about how biomedical engineers create assistive devices for persons with fine motor skill disabilities. Students will learn about types of forces, the relationships between form and function and the structure of the hand. They will design, build and test their own hand “gripper” prototypes and bring their prototype to life by creating an assistive hand device using 3D printing technology.

**Drones for Good Club:** The Drones for Good after-school club will be funded by the grant. Students in grades 6, 7 and 8 will build their own drone, program the drone, research how drones can be used to solve current issues and learn about the rules and regulations of flying drones. Students will increase their problem solving skills, communication skills, collaboration skills and research skills. The students will also continue their participation in annual drone competitions.

#### **North Springs Charter High School – Audio Video Technology/Film Club**

Grant funding for the Video Technology and Film Club will give students the opportunity to apply skills they learn in all levels of video technology classes. Students will work on special projects for the school and/or community. The club will also participate in film competitions within the school district and the state. Creating film projects will allow students to write scripts, consider basic electrical needs for production, edit layers of video/audio and complete frame editing. As a collaborative art, this will also allow students to develop teamwork skills, planning skills and to troubleshoot as filming is completed and in production.

#### **Riverwood International Charter School – Maker Space and Project Based Learning**

The grant funding will be used to purchase a Designjet printer and a Scan and Cut machine as part of the larger initiative of creating a Maker Space. The Maker Space production lab will have modern tools and equipment allowing students to become creators. Students will engage in STEM-related activities to help them build the problem-solving skills and the capacity for content exploration needed to succeed in the working world. The goal is to increase, by at least 35%, the number of teachers using effective inquiry or project-based learning assignments and to actively engage at least 500 students in STEM-related projects for their classes through the Maker Space technology. This engagement will take place before/after school, during lunch and free time, as well as subject class periods.

## 2017-2018 STEAM LEGACY GRANT RECIPIENTS AND PROJECTS

**Dunwoody Springs Elementary.** “I Spy in the Sky with a Little Drone Eye” - The grant funds will be used for a drone club where students will experience teamwork and grow as thinkers and innovators while learning to program a drone. Students will learn the basics of coding through the Tynker app and conceptualize the program they want their drone to fly/perform. They will design, build, implement and test the coding program necessary to fly their drone according to their specifications.

**Heards Ferry Elementary.** “Heards Ferry Elementary Technology Club” -The funds will enable the creation of a Technology Club which will meet once a week. Each month, the club will have a different focus so students can engage in a specific topic of interest or all topics that are presented. The club technology topics will include graphic design, web design, robotics, makerspace, coding, video edition and app development. The club instruction will assist the students in preparing for the Fulton County Technology Competition and the Fulton county Media Festival.

**High Point Elementary.** “MOEMS Math Olympiad Tournament” - The original 2016 SSEF STEAM Grant submitted culminated in the first annual, Hound Bowl Math Olympiad Tournament. There were 55 - 4<sup>th</sup> and 5<sup>th</sup> grade students from five Sandy Springs elementary schools who participated individually and as teams of five students. The successful “Hound Bowl” will continue in the 2017-18 academic year as a SSEF funded program with the goal of including all 7 Sandy Springs elementary schools, as well as 6<sup>th</sup> graders from the two Sandy Springs middle schools.

**Ison Springs Elementary.** “EV3 Lego Mindstorm Robotics” - Students will be designing, building and programming EV3 Lego Mindstorm robots with the grant funds received. They will be immersed in inquiry-based and exploratory learning as a part of the use of software, while practicing computer skills and constructing robotic vehicles. Project management skills will be introduced as well, as students learn how projects take multiple steps and how to sequence each step to complete the project in a timely manner.

**Lake Forest Elementary.** “Lake Forest Elementary After-school STEM Club” - Grant funds will be used to continue the after school STEM Club which meets once a week to enhance the understanding of the Next Generation Science Curriculum in grades 3 – 5. The Club will spark and nurture student interest in STEM fields, develop STEM skills and create excitement about STEM careers. Students will learn through hands-on activities and guest speakers from The Atlanta Audubon Society, the Atlanta Reptile Society and others in the community. Growth of the club’s collaboration with the Fulton County Water Department’s “Adopt a Stream” Program and the Riverwood High School Science Honor Society will continue. The students will also participate in the Atlanta Science Festival’s “Imagining the Future” Program and experience the Atlanta Science Festival through a field trip.

**Spalding Drive Elementary.** “Full STEAM Ahead” - The funds will be utilized to explore each component with after-school clubs for Science Olympiad, Programming and Coding and Art. The art teacher will lead an art focused club to explore and create art to share with the school. The TAG teacher will create and lead a Science Olympiad Club, solving real world problems and culminating in participation in the annual Fulton County Science Olympiad. A third club will continue the work from previous years focusing on building and coding Lego Mindstorm robots.

**Woodland Elementary.** “First Lego League Robotics Teams” - The grant funds will be used to grow the First Lego League Program and continue to support the school’s STEM initiative. The goal will be to establish four FLL teams of 10 students each. The teams will research real world problems and develop a solution. The students will design, build and program robots to address the solutions. The FLL Program will culminate in a FLL competition and sharing of innovative solutions among the students.

**Ridgeview Charter Middle School.** “VEX Robotics/LEGO Robotics Team” - The grant funds will be used to provide an after school club to enrich students’ experience with science, technology, engineering and math courses and allow for seamless integration into classroom projects. The club goal is to design one

of the most competitive VEX/LEGO Robotic teams in Fulton County. Students will work collaboratively to build the robot. The process will encourage creativity in problem solving, require students to conduct quantitative research and enable them to engineer robot construction using feedback from each other, as well as the teachers.

**Sandy Springs Charter Middle School.** “Drones 4 Good After School Club” -The grant funds will be used to support a Drones 4 Good after school club and student participation in the Grady High School, Drones 4 Good Competition. In preparation for their second year participating in this competition, students will build their own drone, program the drone, research how drones can be used to solve current issues and will learn the rules and regulations of flying drones. Students will increase their problem solving, communication, research and collaborative work skills. The goal will be to increase the number of teams from two teams last year, to four teams this year.

**Riverwood International Charter School.** “STEAM Camp Through Experiences in our Community” - Grant funds will be used to provide a Saturday STEAM Camp for at-risk Lake Forest Elementary 5<sup>th</sup> graders at Riverwood High School. Campers will experience mini lessons in areas of science, technology, English, arts and math. Riverwood students will act as mentors and facilitators during the program. Campers will also participate in two or more on/off campus trips/experiences to enhance and expand the STEAM Camp content areas. The field trips may include: Center for Puppetry Arts, Atlanta Botanical Gardens, Fernbank Museum and Planetarium and I school Initiative Escape Bus.

### **2016-2017 STEAM LEGACY GRANT RECIPIENTS AND PROJECTS**

**Dunwoody Springs Elementary-** Funds are used in the school’s Project Based Learning initiative to implement an after-school program. Students will study the sun and its ability to impact their lives in new and exciting ways. They will be able to construct different objects using the “OWI Solar Kits.” These kits enable students to construct over 20 different objects that run on solar power.

**Heards Ferry Elementary-**Grant funds will be used to create a Maker Space Challenge after-school project designed to engage students in STEM related activities. Students will present a project idea or concept to improve the function of an existing system. They will create teams to work on their Maker Space project, while keeping detailed journals of their successes and challenges.

**High Point Elementary-** The original grant project was submitted for a math based after school program engaging students with mathematics in authentic and real world contexts. This after-school program will culminate in a Math Olympiad for Elementary and Middle Schools (MOEMS) Tournament which will engage High Point students. The teacher plans to set up a new MOEMS Tournament for the students in our Sandy Springs schools. Currently, three other Sandy Springs elementary schools are interested in participating in this tournament. SSEF plans to sponsor and fund this Math Olympiad Tournament separately as an SSEF Program.

**Ison Springs Elementary-** Grant funds will be used for an after-school program to allow students to design and construct a house or city with a variety of materials. They will install electricity for their construction projects to run miniature ceiling fans and other electrical features.

**Lake Forest Elementary –** The grant funds continue the after-school STEM Club, which meets once a week to enhance the understanding of the Next Generation Science Curriculum in grades 3 – 5. The Club members participate in 1) science experiments, 2) community involvement through the Fulton County Adopt-a-Stream Program, 3) guest speaker and community leader lectures and 4) school-based projects. The Club provides a positive, learning centered after-school activity and focuses on encouraging student interest in STEM skills and careers. It also enhances student science performance.

**Spalding Drive Elementary –** The grant funds an after-school program that encourages students to learn coding programs, such as Tynker and Code.org. After learning the basics of coding, students will

create interactive STEAM projects. Local programmers will visit or Skype with the students to discuss programming and coding jobs in the community. Students in the after-school club participated in the Hour of Code with students across the country and finally, students will present their projects at the 2<sup>nd</sup> Annual SDE STEAM Expo.

**Woodland Elementary** -Grant funds will enable the start of a First Lego League competition team. Guided by adult coaches, First Lego League teams research a real world problem such as food safety, recycling, energy consumption, etc. and suggest a solution. The students must design, build and program a robot using Lego Mindstorm Technology. They will then compete on a table-top playing field. The program culminates in a challenge where students compete against their peers and share their innovative solutions with others.

**Ridgeview Charter Middle**– The grant will fund an after-school program to teach students about earthquakes. With the “Earthquake Towers – Getting Started Package,” the students will build buildings and bridges. Students will test their structures to determine earthquake resistance through the use of a Tremor Table earthquake simulator and associated testing equipment. Via researching and tracking earthquakes, students will gain knowledge in both science and technology.

**Sandy Springs Charter Middle**–Grant funds will be used to purchase four data hubs for the after-school STEAM Green Club. One of their main focus areas will be to create and maintain a school community garden. The device will calculate real-time data, such as soil pH, water levels and temperature, to help students make informed decisions in their scientific studies.

**North Springs Charter High** –Grant funds will be used to fund a Spartan Mixers after-school club for Music Technology students. The school is developing a Music Technology Program to prepare students for music and industry careers in performance and production. Although the Music Technology class is initially limited to a small number of students, the after-school program, Spartan Mixers, will reach additional students with musical talent. Students in the club will create their own audition CDs. They will learn how to mix sound, evaluate recordings and create a final product.

**Riverwood International Charter**– Grant funds will be used to fund a six-week Saturday STEAM Camp for financially vulnerable Lake Forest Elementary 5<sup>th</sup> graders. Riverwood teachers and identified Riverwood students will deliver this program. Students will learn about the ecology, migration and life cycle of the Monarch butterfly and will complete an art piece, poem or story to describe it. The students will document and build a garden while collecting statistics about the Monarch butterfly migration. Finally, they will build a Monarch friendly garden at both their home school and Riverwood High School.

## **2015-2016 STEM LEGACY GRANT RECIPIENTS AND PROJECTS**

**North Springs Charter High School**– For a Maker Club in which students will participate in the Deconstruction Tournament and two additional design competitions.

**Ridgeview Charter Middle School**– For an after school RADIO-STEM project in which students will learn about AM/FM radio design and theory, the basics of digital multi-meters and circuit troubleshooting, the basic principles of electronics and electricity, physics and magnetism and will build their own fully functioning FM radio.

**Sandy Springs Charter Middle School**– For hands on projects focusing on evolution, the study of body systems, water cycle, plant life and interaction of living things. Students will participate in an advanced pond study with a field trip to the Chattahoochee Nature Center.

**Heards Ferry Elementary School**– For a Maker Space Challenge after school project designed to engage students in STEM related activities.

**High Point Elementary School**– For an after school STEM-gineers Project which is a talent development program modeled on the School-wide Enrichment Model. Students will explore math topics and strategies and will register as grade level teams in the Elementary Mathematical Olympiads.

**Ison Springs Elementary School**– For an after school program for second grade students to work with electronic snap circuits. Student will create a working circuit board and will conduct experiments involving electricity with a goal of increasing their knowledge of electronic circuits.

**Lake Forest Elementary School**– For an after school STEM club which is designed to enhance understanding of the Next Generation Science Curriculum in grades three through five. The STEM experiences will include science experiments relating to the curriculum, robotics, and community involvement projects.

**Spalding Drive Elementary School**– For an after school STEM in Action program designed to align with the school’s STEAM focus. Students in the third through fifth grade will participate in a Science Club, Technology Club, Engineering Club and Math Club. They will participate in numerous competitions.

**Woodland Elementary School**– For the Lego Wedo Robotics program. The school will purchase 15 Lego Wedo robotics kits to be used in the technology classes and in their after school program for first and second graders. The program is part of the school’s goals to be a STEM certified school.

### **2014-2015 STEM LEGACY GRANT RECIPIENTS AND PROJECTS**

**North Springs Charter High School**– Grant funds will be used to fund a Science Olympiad team. The competition consists of skill/academic tests and building events. Funds will be used to construct, test, and perfect designs and prototypes for the building events, which is the focus of this year’s competition. Students will gain a greater understanding of robotics and engineering through this club.

**Ridgeview Charter Middle School**– Grant funds will be used for a Math Olympiad team. The objective of this project is to engage students in the study and practice of mathematical problem solving through participation in the Math Counts national program and the Mathematical Olympiads for Elementary and Middle School competition.

**Sandy Springs Charter Middle School**– Grant funds will be used for a Science Explorers After School Club. Students will explore a variety of topic from all of the sciences through hands on experiments resulting in authentic learning. Activities range from working with polymers that would allow students to produce “fake mucus”, to exploring the properties of carbon dioxide by creating lava lamps, to observing an exothermic reaction between hydrogen peroxide and yeast in elephant’s toothpaste. All experiments are designed to be fun as well as educational.

**Ison Springs Elementary School**– Grant funds will be used to fund an afterschool science club focused on robotics to raise awareness of innovation through empowering students to make their ideas a reality by giving them the tools to start, refine and realize that with team work a vision can become reality. The students will have an opportunity to learn about programming and robotics with the goal of creating a robot that they can present in a robotics contest and/or science fair.

**Lake Forest Elem School Lake Forest Elementary School**– Grant funds will be used for a Lego League/STEM Club. This will include robotics activities as well as a focus on STEM activities. The plan is to focus on a science concept each month, such as, biology, ecology, water quality testing, etc. to integrate the other areas of STEM into the afterschool program.

**Woodland Elementary School**– Grant funds will be used for an afterschool STEM Club with Robotics. Students will participate in engineering design tasks utilizing LEGO WeDo STEM kits designed to teach

the fundamentals of programming. Students will learn the basics of robotics and will develop necessary collaborative skills to enhance their creative and critical problem solving abilities.

## **2013-2014 STEM LEGACY GRANT RECIPIENTS AND PROJECTS**

**Riverwood International Charter School**– Grant funds will support the current RoboRaiders Robotic Team. The Robotics club engages students in designing and building robots to compete in the FIRST Tech Challenge. The objectives of the program are to promote leadership qualities, team spirit and cooperation while developing engineering and technological skills to inspire students to seek careers in science and technology.

**North Springs Charter High School**– Grant funds will be used to pilot a Computer Science club. The purpose of the club will be to allow students to experience hardware, programming, prototyping, and hands-on electronics experience to increase and cultivate interest in electronics, computer science, and creativity.

**Ridgeview Charter Middle School**– Grant funds will be used to start an after school science and math initiative that funds a “hands on” learning lab experience for all students. While offering equity and access for all, the initiative will place an emphasis on inviting and attracting at risk girls. This after school program, offered two days per week, will be fully equipped with supplies to embed hands on learning labs to inspire the young scientist and mathematician.

**Sandy Springs Charter Middle School**– Grant funds will be used to fund a evolution/classification/body system science unit as part of the Science Exploration enrichment program for the After School All Stars program. Students will dissect and study the anatomy of the dogfish shark in order to gain a better understanding of the major organ systems, as well as the classification and the evolution of the species.

**Ison Springs Elementary School**– Grant funds will support a robotic after school club providing students with an engaging activity that integrates science, technology, science and math. Funds will be used for equipment as well as First Lego League registration fees for team competition. Funds will support students in all grade levels at the school.

**Lake Forest Elementary School**– Grant funds will be used to implement an after school robotic club to prepare fourth and fifth grade students to compete in the First Lego League. The goal is to recruit Riverwood high school students who have robotic experience to teach these elementary school students the fundamental robotic production and programming responsibilities.

**Spalding Charter Elementary School**– Grant funds will be used to offer an after school First Lego League opportunity to their 3rd through 5th grade students. Funds will be used to for equipment as well as First Lego League registration fees for team competition. This initiative will engage students in team competition as well a serve as a feeder program to the middle school.

**Woodland Elementary School**– Grant funds will be used to start an after school STEM program which will target 4th and 5th grade students as a testing ground for a STEM lab program school wide. The plan is to engage students from North Springs high school to partner with the students to work on robotics, business planning, design, engineering as well as a medical component. Each project will last 7-8 weeks followed by a presentation.

## 2012-2013 STEM GRANT RECIPIENTS AND PROJECTS

**North Springs Charter High School**– Initiated a program, Operation Hyper/Thread, designed to establish a robotics education pathway at North Springs and to thread the knowledge and experience about robotics across feeder schools in the cluster through mentoring activities. The objective is to develop a sustainable competitive robotics program at the high school while reaching out to the middle and elementary school students to develop their primary robotics skills. Grant funds will be used to purchase needed equipment to prepare for robotic team competition and mentorship activities.

**Riverwood International Charter School**– Grant funds support the current RoboRaiders Robotic Team. The team engages students in designing and building robots to compete in the FIRST Tech Challenge competition. The objectives of the program are to promote leadership qualities, team spirit and cooperation while developing engineering and technological skills to inspire students to seek careers in science and technology.

**Sandy Springs Charter Middle School**– Grant funds used to purchase Lego NXT Robotic kits to increase participation in the current after school Robotic program. Students will develop team and project management skills through participation in the FIRST Lego League competition and the Technology Student Association competitions. The program is designed to get students involved in real-world engineering, computer science, design, math and applied physics.

**Spalding Drive Charter Elementary School**– Offered the FIRST Lego League opportunity to their 3rd through 5th grade students to prepare the students to participate as a FIRST Lego League team. Grant funds will be used for “seed money” to initiate the program by purchasing equipment including robotic and field set-up kits. The goal is to create a fun, creative, hands-on learning experience which engages students in STEM activities while serving as a feeder program to the robotic program in the middle school.

**Ison Springs Elementary School**– Implemented a robotics after school club which is a continuation of the current SSEF grant-funded science club. Grant funds used to purchase Lego Mindstorm kits. Two engaging teachers with strong backgrounds in technology and science as well as Lego Robotics worked with students on activities that integrate science technology, engineering and math.

At Ison Springs Elementary School’s Science Fair, the students demonstrated projects that were paid for by SSEF STEM Grants 2011-2012. Ison Springs teacher said:

We have truly enjoyed the relationship we’ve established and cultivated with SSEF over the past few years and are especially thankful for the Robotics Grant you provided this school year. We were able to serve 26 students in grades 1-5 via a robotics club in which they learned how to create, program, and engineer various projects. It was an unbelievable experience for our students and staff.

**Woodland Elementary School**– Developed a 4th and 5th grade First Lego League for 2012 competition year. In addition to the teams, students would participate in two enrichment days focusing on decision making, inquiry/mystery, metaphorical reasoning, and inductive reasoning. The objective of the program is to develop a sustainable robotic program which will develop an interest among students of all backgrounds for further participation in robotics and/or STEM studies in middle, high school and beyond. Grant funds would be used to bring in a robotics instructor to work with students and train the teacher.



## 2011-2012 STEM GRANT RECIPIENTS AND PROJECTS

**Dunwoody Springs Elementary**– Initiated an “Ask the Science Expert” enrichment program bringing in experts in the field to visit with the students to deliver high level, inquiry based learning lessons incorporating the use of their expanding science lab. They also will purchase portable laptop microscopes for use in the lab.

**Heards Ferry Elementary**– Created an interactive “Human Sundial” to inspire learning through outdoor experience complementing classroom learning. A Human Sundial offered hands-on learning in a range of subjects including Math and Science. Appropriate curriculum will be purchased for the project.

**High Point Elementary**– Initiated a “Flipping Out Over Flip” program for students in grades 4 and 5. Seven Flip cameras were purchased for students to develop persuasive videos. The math videos demonstrate hand on experiences/experiments of students relating real-life scenarios to math standards being taught in the classroom. Videos helped students make connections to their everyday lives.

**Ison Springs Elementary**– Implemented an “Amazing Science!” after school science extension program. Second and third graders participated in varied hands-on experiments and projects that are aligned to the performance standards. The focus of the program is to foster a deeper interest in scientific inquiry and exploration.

**Lake Forest Elementary**– Brought in an in-school field trip called “High Touch High Tech” for all 5th grade students. Program transformed classrooms into Living Laboratories in which students became scientists and learned by doing science experiments both in school and at home. Program is aligned with the Georgia Performance Standards in Science.

**Spalding Drive Charter Elementary**– Implemented a “Science...Seriously” program for students in Extended Day and Prime Time after-school programs to provide them with additional science instruction. Two highly interactive on-site field trips, Lego-Robotics and High Touch/High Tech, took place in the program. “Time for Kids” magazines were ordered for use in the program.

**Woodland Elementary**– Purchased the Moon Cylinder for their existing Star Lab. The Moon cylinder was used for four grade levels to meet Georgia Science Standards. The Star Lab is and continues to be an outstanding educational tool for all of the students in the school.

**Ridgeview Charter Middle School**– Purchased students licenses of Explore Learning’s mathematics and science “Gizmos” web application. School matched grant to offer opportunity to all 8th grade and ELL students. These interactive computerized science labs and mathematics simulations helped students make deeper connections to the instruction that they received in the classroom.

**Sandy Springs Charter Middle School**– Implementation of an after school Science Explorer’s club. The program was designed to allow students to explore the scientific world around them with fun and interactive science experiments. Program was conducted within the current After-School All-Stars program.

**North Springs Charter High School**– Implementation of a Research based after school club. The club is designed to give students who are interested in science a chance to perform experiments and communicate their results to the general public through a competition (Science Fair). The grant provided a continuous link for advanced research as students learn valuable research techniques, advance their own thinking skills and have ownership of their learning.