

# SUPERCHARGED SCIENCE

**Does this sound familiar?** Ever do a science activity and wonder if your kid is really learning *anything*? Have you tried to do a science experiment, but it didn't work... no matter what you tried? Does your kid long to do real science, but you haven't got a clue how to start?



**Welcome to Supercharged Science!** This is an introduction to what you need to know *and* do in order to rocket launch your science education! We take your kids from zero to Einstein in under a week so you don't have to.

If you've ever struggled through crackling-dry textbooks or archaic experiment directions, you're doing what we call 'majoring in minor things'. You try an activity, a book, a science kit... all with minimal results. Your kid still can't tell an atom from an angstrom.

**We challenge you to focus on the things that have the greatest impact on your child's learning:** wonder, discovery, and exploration. When you focus on these biggies, you will no longer be guessing whether your child is really learning science or not... you will *know* with absolute certainty... because you will be able to see it for yourself. Your kid will turn around and teach *you* science after a day or week with us. (Goggles, anyone?)

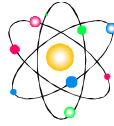
**We offer several different ways to get us involved with your science education,** including one-day workshops, week-long science camps, and free over-the-phone teleclasses. To put it another way, we have just about everything to jump-start your science learning that will fit into your budget.

**Supercharged Science Workshops** Our most important goal is to ignite your child's passion for the love of learning (or kick it up several notches!). We help kids play at a higher level by uncovering their full potential, and we do whatever it takes to help them reach it. When this happens, learning occurs naturally from the inside out, and they are more focused, driven, and excited about learning and education in general.



Supercharged Science Workshops are much more than a day of "science projects" – most of our participants leave with an armload of experiments and a mind full of ideas that last them well beyond (months, or some even *years*) the last day of class. We frequently find participants utilizing our ideas in ways we've never even dreamed of... because their inner drive to learn and grow is ignited and their curiosity is on fire!

Our workshops are carefully structured in order to achieve these goals in the form of a fast-paced 'physical science' camp environment, packed full of projects, activities, ideas, and experiments. We also have a unique tiered-level learning environment, which is a 'total immersion' program where everyone learns from everyone else. We utilize assistants from local high schools and colleges, as well as teachers and educators from nearby schools. Everyone is at a different learning stage, and your child has the opportunity to interact with students of science on all different levels. (We've seen nine year olds chat with college engineering students about their classes!)



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**What are the logistics of Supercharged Science Workshops?** Our Workshops run one, three, or five days long. Kids get four to six hours of non-stop hands-on science learning, spiced with sparks, booms, and whiz-bang demonstrations. For workshops three days or longer, we'll also take you on an intergalactic tour through our crowd-pleasing *Astronomy Night*. This Science Workshop is tailored for kids ages 7-12 years, and we can handle groups as large as your facility permits.

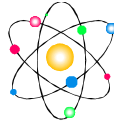


**Who teaches these Science Workshops?** Your teacher, coach, mentor, and guide through this wild science adventure is Aurora Lipper, who is a certified pilot, astronomer, mechanical engineer, rocket scientist, and university instructor. She has been teaching science for over a decade in the form of workshops, camps, and talks... getting kids crazy-wild about science and rocket launching their education well beyond the workshop itself.

**What topics are covered during the Science Workshop?** This is where we *really* shine! Where most teachers would take a year (or more), Aurora covers the same amount of material in *one week*. There are several reasons for this (more on this later), but here's a sample of what you can expect your child to experience during the workshop. We have hundreds of classes, but here are the most popular:

- **Aeronautics** Construct stunt planes, hang gliders, bat kites, rotor kites, pneumatic rockets, and play with the hydrogen atom itself as you uncover the physics of flight using Bernoulli's Principles for wing design, taught by a real pilot!
- **Electricity** Wire up circuits, relays, motors, lights, switches, and much more as you build homemade burglar alarms such as trip wires, stomp sensors, tilt sensors, and the electric eye using Maxwell's Electromagnetic Principles, taught by a university instructor!
- **Physics** Shatter lasers beams, blast pneumatic cannons, split photons into rainbow shadows, construct catapults, discover the perfect pitch to annoy your parents while you investigate sonic vibrations, and zoom around your own roller coaster track as you play with Newton's Physical Laws of Motion, taught by a real scientist!
- **Chemistry** Cross-link polymers to bubble up slimy substances, experiment with phase shifts, shake up solutions that change into a rainbow of colors, turn your dad's coffee back into clear drinkable water and stew up a chemical matrix of exothermic reactions using Le Châtelier's Equilibrium Principles, taught by a real rocket scientist.
- **Astronomy & Astrophysics** Discover planetary nebulae, colliding galaxies, pulsars, black holes and more as we take you for an intergalactic tour of our universe, taught by a real astronomer! Learn how to chart the stars, learn about phases of the moon, and discover why stars twinkle in the night. Class is carefully taught in a non-evolution, non-creation format so everyone can participate.
- **Engineering** Construct a mechanized animal robot from junk you have around the house! Learn from a real mechanical engineer how to wire up motor circuits and remote controls as you build several zooming, hopping, swimming, wheeling, dancing robots!





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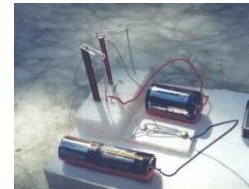
**What does it cost to get a Science Workshop in my area?** It really depends on where you are in the country, and which class(es) you decide on. The cost of the workshop also depends on the materials we need to bring as well as how many kids we serve. Contact us immediately and let us know what you're thinking so we can zip you over a quote: (805) 617-1789 ext.2.



**What if we have older kids wanting to attend the science workshop?** The Supercharged Science Workshop is intended for kids ages 7-12 years, however we do offer assistant positions for teens. You'll get to watch, listen, learn, build, create, and help us make this an outstanding event for everyone.

However, we do offer something special for older kids: **RoboCamp**, which is a very intense workshop with more advanced projects in electronics and robotics.

**What's RoboCamp?** We had so many teens attending our Science Workshop that we just had to make a special class just for advanced students! The Supercharged Science RoboCamp is open to teens ages 12-18 years. Students will wire up electronics, robots, laser light shows and more... and get to keep everything they build. Here's a sample of the classes we offer:



**Electricity** Wire up circuits, relays, motors, lights, switches, and much more as you build homemade burglar alarms such as trip wires, stomp sensors, tilt sensors, and the electric eye using Maxwell's electromagnetic principles!



**Lasers** Shatter beams, invert switches, crank potentiometers, split rays, and more as you investigate the science of optics and high-energy light particles using Planck's principles. You'll also build your own portable laser light show to take home!

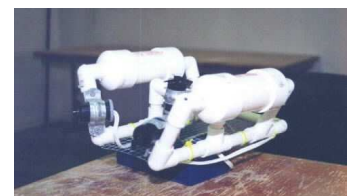
**Electronics** Learn how to solder together resistors, capacitors, transistors, and more as you build photoresistor circuits, light-activated buzzers, audible light probes, latching circuits, burglar alarms... using semiconductors and dielectric effects!

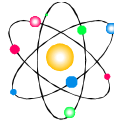


**Propulsion** Blast pneumatic rockets, trigger cannons, and uncover chemical reactions as you cross-link polymers, experiment with phase shifts, shake up solutions that shoot through the entire spectrum, and stew up a chemical matrix of exothermic reactions using Le Châtelier's Equilibrium Principles.



**Engineering** Construct a mechanized robot from junk you have around the house! Learn from a real mechanical engineer how to wire up motor circuits and remote controls as you build several zooming, hopping, swimming, wheeling, dancing robots!





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**What does RoboCamp cost?** It really depends on where you are in the country, and which class(es) you decide on. The cost of the workshop also depends on the materials we need to bring as well as how many kids we will serve. Contact us immediately and let us know what you're thinking so we can quote you over a quote: (805) 617-1789 ext.2.



Upon special request, we can run both Science Workshops during the same days for your wide age-range group, with one in the morning and the other in the afternoon. Unfortunately, we cannot combine both age ranges (7-12yrs *and* 12yrs and up) in the same workshop, nor do we recommend enrolling a 12 year old in both workshops!

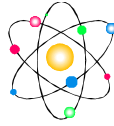


**We love it! How do get a Science Workshop/RoboCamp in our area?** First, you'll need to find a coordinator for this event. Someone who is connected with your group and can really make stuff happen. (And, as a THANK YOU to the person who steps up to be the coordinator for this event, we offer *free admission* for the children of the coordinator.)

As coordinator, you've got a few tasks ahead of you. Here's an idea of what you will need to do:

- Once you have a group of participants fired up and ready to go, **contact us immediately** to talk over your plans and ideas, and make sure we've got a date available for your timeframe.
- **Find a location big enough** for the participants. We need both indoor and outdoor facilities. For the indoor, find a room with at least 12' ceilings, can be made dark (for the Lasers and Astronomy), and has power, water, and plenty of space. Long tables (6-8' long) and chairs (one for each student) are a must. Outdoor areas need to be clear of trees and power lines for about 100' (for Rocketry). Fenced in areas are required if your location is near a busy street. **Best locations are found in schools, churches, and city or county recreation centers.**
- Once you've nailed down a location and have a set of fired-up participants, contact us right away for our **Science Workshop Agreement**, which outlines every little detail about what's expected from both ends. We'll also send you an email to share with your group. Inside this email will be all the pertinent information, registration information and a letter on how to get the most out of your workshop with us.
- **As coordinator, your most important task is to get people both wildly excited *and* registered for camp.** We'll provide you with promotional materials if you need it (sometimes we'll even give provide a live performance months ahead of time!)





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- Your part is nearly complete! **Once the minimum registrants are reached** (usually 50 participants), **we are now absolutely confirmed for the date set...** and now we start the wheels turning on our end while you relax. We're ordering over 10,000 parts to be shipped out and packing up lightning machines, 8' (real) rockets, roller coasters, and 400 pounds of 'science' to your location. (You're still relaxing.)
- **Stay in touch with us** and your group to make sure everything is coming together just as expected. If there are special requests or needs, just let us know – we're here to help!



Know that your students will have an outstanding, world-class experience with our science workshop. We'll take care of the rest.



## **Is it *too expensive...* or not enough kids to bring the Science**

**Workshop to your area?** We offer *free* over-the-phone science workshops (called 'teleclasses') for homeschool groups. All you need is a phone and a computer. (You don't have to travel anywhere, and it's free.) The teleclass lasts about 45 minutes, can handle up to 250 callers, include live Q&A sessions with Aurora, and you get to pick the science topic for your group:

Rocketry, Chemistry, or Astronomy. (We'll teach you how to make several science experiments using everyday stuff with new ideas.)

To request a free class, visit this special website page to get started:

<http://www.superchargedscience.com/workshop-freeteleclass.htm>

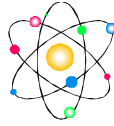
Thank you for your support of our workshops! When you're ready, please contact me and I'll be happy to answer any questions and iron out the finer details. We've served over 30,000 kids through our science programs, and we personally guarantee our Science Workshops are nothing like you've ever experienced before. Your kids will be humming for weeks and months afterwards...



We look forward to serving you and your students!

Warmly,

Amy Englemann  
*Supercharged Science*



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## Praise for Science Workshops and Camps

"When I asked my kids what the highlights of our year had been, they unanimously said it was Aurora's Supercharged Science Camp. They had the most wonderful week making gadgets, mixing goo, playing with lasers and walking on water! Aurora inspired them to try, tinker and think!"

*Viviane M., Santa Barbara, California  
Coordinator for Science Camp, March 2008*

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"You have been such a fun inspiration for our son Sam, and totally got him fired up to build, connect, explode, invent, test, create, discover, question... and in a nutshell, get wildly excited about how our physical world behaves through experimentation. Thank you! Thank you! Thank joy!"

"You're a blessing and huge contributor to the positive development of our kids' minds and passions. Thanks for all you do and all you are!"

*Jan S., San Luis Obispo, California  
Parent of participant in Science Camp in August 2008*

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"We just wanted to say THANK YOU for supercharging us at Valley Oaks Charter School. You were awesome and did an outstanding job with the experiments, presentations and putting it in kid friendly terms so they could understand. My kids now want to be rocket scientists!"

*Cynnde Lewis, Bakersfield, California  
Parent of Participant for Science Workshop in 2008*

"Aurora spoke at a Cub Scout Pack 6 meeting a few months ago and totally "wowed" the boys who attended the meeting. It was amazing to hear them talk about her and their sudden interest in science. My husband, David Church, was equally impressed with her skills and presentations. First thing they said when they got home that night was, "Sign me up for all her camps, I love that teacher!" My son and his buddies raved about you for days."

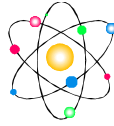
*Connie Hanretty-Church, California  
Parent of Participant in Science Workshop, September 2007*

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"Thank you so much for coming out to do our Science Day. It was awesome! I have had parents contacting me all week to thank me for putting both presentations together. Actually you did all the work - thanks for making me look good! You brought so much energy into our science program. Your presentation is inspiring, not to mention fun! You truly did inspire the young minds to think creatively about science.

"Personally, my son Ryan has been doing some pretty creative thinking about his science project for our upcoming science fair. I am sure we will see many 'Aurora-inspired' entries this year! Thank you again. My appreciation and just plain "awe" for how and what you do just can not be put into words. Thanks again and again!"

*Lorraine Solomon, Bakersfield, California  
Homeschool Coordinator for Science Workshop in 2008*



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“Going to school during spring break seemed like anything but great until last week when the hours at the desk paid off at Science Camp. I was not really looking forward to driving for three hours to get there. Science Camp was a totally awesome experience and can't wait to go back with Madison and Gavin this summer! I made and came home with so many cool things and plan to make more!”

*Melissa, age 12, Las Vegas, Nevada  
Attended Supercharged Science Camp in March 2008*

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"My son, who never gave science a second glance, now attends the engineering program at MIT... which he was inspired to do because of a workshop you personally gave years ago to his junior high school. Thank you - THANK YOU!"

*Barbara Ann DuVall, California*

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“Thank you for making our boy scout meeting the best we have EVER had! Your Rocketry presentation was outstanding! We are booking you for many more this year!

*David Church, California  
Boy Scout Troop Leader, Pack 6  
Parent of Participant in Science Workshop in September 2007*

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"Aurora, YOU are the reason our enrichment program hit capacity in record time. You set up the learning environment so that it feels *good* to learn, and you break it down into very easy steps so everyone can handle it. Thanks for doing what you do and sharing it with us."

*Judy Harris, California  
Family Partnership Charter Homeschool Director  
Coordinator of an extensive Science Camp in 2007*

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"Schools are great at botany and life sciences, but when it comes to robots, electricity, and physics, kids are lost. Thanks for filling in the gap."

*Jim Nett, 7th Grade Science Teacher at  
Laguna Middle School in California  
Assistant for Science Camp June 2007*

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"I told my son he had to do his science lesson for just fifteen minutes each day, which was such a chore for him. After your science presentation, my son spent three hours working on “improvements” to the project he made in your class... he made us late for an appointment because he couldn't tear himself away! Thank you so much!!!"

*Barbara & Matt, Valencia, California  
Parent of Participant in Science Workshop, March 2008*

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That is just a sampling of the notes we have received. There are a lot more... but they all really say the same thing - we are really good at this. We know science, and we know how to deliver it in a way that makes the biggest impact with our students.

We look forward to serving you and your students!

Warmly,

Amy Englemann  
*Supercharged Science*



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Tel: (805) 617-1789 • Email: science@SuperchargedScience • Web: www. SuperchargedScience.com

*This is a sample **Science Workshop Agreement**. Note that every event we provide is custom-tailored to fulfill your goals. Please contact us so we can discuss your group and provide you with an estimate.*

Supercharged Science is please to provide your organization with a comprehensive in-depth Supercharged Science Camp/Workshop. This workshop will be presented by Aurora herself! Our goal is to provide you and your organization with our absolute best. In order to do this, please let me share some specific guidelines and requirements. I apologize in advance for the “legal” aspect of some of the items below, but it seems these things are a part of business these days. Thank you for taking the time to read through these requirements.

1. Number of participants: There is a **minimum of 50 kids and a maximum of 100 kids** per workshop. (We can accommodate larger workshops over 100 kids, but these require different arrangements. We also provide parent-child workshops for *thousands* of participants, which is a different type of experience for your group. Please let us know if this is what you need).
2. Logistics: Science Camp Workshops run best at four hours of instruction each day. You'll need to find a space big enough to house your group, have easy access to power, water, bathroom facilities, and outdoor area (if we're launching rockets or doing chemistry). The room needs to be available the *entire* duration of our workshop, have easy parking access, and be able to be made very dark for the Lasers and Astrophysics classes. Churches, schools, convention centers work well. If your group is larger, you'll also need access to a riser or stage, overhead projection and sound systems.
3. Age Range: The **Science Camp** is appropriate for kids **7-12 years old** (we have a different camp workshop just for older **12-18 year old kids**). We can run both camps at the same time, but contact us first with the details of your group.
4. Workshop/Camp Cost:
  - a. The price of the camp depends on the class you select. With over 200 classes in physics and chemistry, we have a lot to choose from! The most popular classes are: Rocketry, Electricity, Robotics, Lasers, and Astrophysics. The class costs vary because kids bring home everything they build, and some class materials are more expensive than others.
  - b. Here's a ballpark figure for you to start with... the base price is **\$60 per student per day** (in most cases, we require a 3-day minimum) and includes the cost of materials. For larger and longer workshops, we offer discounted pricing, so be sure to contact us for details. To give you a better idea, a 5-day workshop for 50 kids runs about \$15,000 (includes materials, traveling, shipping, and everything).
  - c. A deposit of half the total is required to reserve the workshop 45 days in advance. We order the parts and materials ahead of time, and we need to know which classes we're preparing for! We need your final enrollment numbers *at least* four weeks in advance to guarantee adequate materials for your participants.



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- d. If you are further than a 6-hour drive from us (San Luis Obispo, CA), we will travel by air. If this is the case, there is an additional travel fee to cover the cost of airfare, shipping of materials and additional travel expenses.

5. Additional Options Included:

- a. We provide you with a Bonus DVD at cost for every family participating in the workshop, which contains several additional experiments and activities for students after the camp completes.
- b. Work Exchange Program: For families in financial need, we offer this unique opportunity: every day worked at camp as an assistant, you get one kid in for FREE! (Does not include the material fee.) Assistants must be available from an hour before *and* after each camp, and please do not bring children who are not participating in the camp workshop.
- c. Scholarships: We have a limited number of scholarships, as we regularly donate to those in financial need, so please let us know if you have a special request. We also match every scholarship your organization covers.

6. Cancellation Policy: If the workshop is cancelled (either by your organization, or because enrollment minimums are not met), the following fees will apply:

- More than 45 days prior to the workshop Full refund
- 31-45 days prior to workshop \$500 fee
- 21-30 days prior to workshop \$2000 fee
- 14-20 days prior to workshop \$5000 fee
- Less than 14 days prior to workshop No refund

We will provide online registration and payment processing for your organization (we accept credit cards, eChecks, instant transfers, and Paypal). The funds we collect are on your behalf. It is your coordinator's responsibility to address any payment issue with your members (other than technical payment problems). Should the event be cancelled, we will refund you a lump sum. It will be your responsibility to allocate it among your group as you see fit.

7. Workshop Coordination: First, you'll need to find a coordinator for this event. This should be someone who is connected with your group and can really make stuff happen. And, as a THANK YOU, we offer free admission for the children of the coordinator of Supercharge Science Camp (up to two participants for every 50 enrolled). Your main job is to find a location, market the event to your group (we provide you with promotional materials, including emails, flyers, and special free teleclasses ahead of time), help families register for the event (either online with us or with your organization), receive materials and packages the week before the event, and stay connected with us as we go along. You'll also need to assemble a team of parent volunteers to help assist with the camp –1 adult per 6 participants.

Okay, I hope that wasn't too bad. Please don't hesitate to ask if you have questions. If something doesn't work well for your particular situation, call us – we're real people and want to work with you! Assuming this all looks good to you, just give us your signature and info on the next page.

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I wish to have Supercharged Science teach this workshop for our organization. I understand the requirements and terms outlined and agree to fulfill them:

Name \_\_\_\_\_ Title \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

## **Contact & workshop info**

Organization name \_\_\_\_\_

Contact name \_\_\_\_\_

Contact Phone \_\_\_\_\_ Cell phone \_\_\_\_\_

Contact email \_\_\_\_\_

Number of kids \_\_\_\_\_ Age range of kids \_\_\_\_\_

Date & time of requested workshop \_\_\_\_\_

Location of workshop(s)

\_\_\_\_\_