The rules and curricula for these events are grade-specific and reinforce California State Board of Education math and science standards.

### Middle School Competitions

<table>
<thead>
<tr>
<th>Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse Trap Car - Distance</td>
</tr>
<tr>
<td>Stick Together</td>
</tr>
<tr>
<td>EggXpress</td>
</tr>
<tr>
<td>Model Science – GI Physiology</td>
</tr>
<tr>
<td>Balsawood Glider</td>
</tr>
</tbody>
</table>
| **Speak Up**
| 6<sup>th</sup> Grade                            |
| 7<sup>th</sup>/8<sup>th</sup> Grade              |
| Solo Math                                       |
| Team Math Quest                                 |
| *National Engineering Design Challenge – Prosthetic Arm 2.0 |

### High School Competitions

<table>
<thead>
<tr>
<th>Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse Trap Car - Power</td>
</tr>
<tr>
<td>Civil Structures</td>
</tr>
<tr>
<td>EggXpress</td>
</tr>
<tr>
<td>Model Science – The Heart</td>
</tr>
<tr>
<td>Balsawood Airplane</td>
</tr>
<tr>
<td><strong>Speak Out</strong></td>
</tr>
<tr>
<td>Solo Math</td>
</tr>
<tr>
<td>Team Math Quest</td>
</tr>
<tr>
<td>*National Engineering Design Challenge – Prosthetic Arm 2.0</td>
</tr>
</tbody>
</table>

*Rules not currently available*
MESA Day Competition: 2015—2016 Revisions

1. Balsawood/Craft stick Bridges - no changes at MS or HS level
2. Balsawood Glider - no changes at MS or HS level
3. Egg Drop - no changes at MS or HS level
4. Model Science - no changes at MS and HS level
5. Mousetrap Car - no changes at MS and HS level
6. Public Speaking - no changes at MS at HS level
7. Solo Math
   MS Level - only 8th grade can compete in MS Solo Math
   - Test is a mock PSAT test with multiple choice question for Math Section
   
   HS Level - only 9-11 grade students can compete in HS Solo Math
   - MESA is a mock SAT exam with multiple choice question from the Math section

8. Team Math Quest
   MS Level - only 6-7 grade students can compete in MS Team Math Quest
   - only one level; covers Gen Math, Pre-Alg., Alg. 1
   - teams will be judged at the level of student in the highest grade
   
   HS Level - only 12th grade students can compete in team Math Quest
   - only one level; covers Alg1 through Calc

9. Prosthetic Arm
   a. Cost of device cannot exceed $80.00
   b. Arduino must be used to device to open and close device fingers
   c. Cannot use wrist of fingers to control device in any way
   d. Unencumbered had can be used to activate device
   e. Different team member must perform each trail
   f. Poster must include block diagram of Arduino Programming
   g. Pseudo code must be included in appendix
   h. Discussion must detail integration of electronic into device
UCLA MESA CENTER CALENDAR 2015-16

AUGUST 2015
Wednesday, Aug. 26
MESA Advisors/Counselor Meeting

Monday, Aug. 31
JPL Invention Challenge Registration Opens

SEPTEMBER 2015
Saturday, September 26
UCLA MESA Parent Meeting

Saturday, September 26
SMART MESA Advisors Training @ Chapman University
PAC 2.0 Arduino Training@ Chapman University

OCTOBER 2015
October TBD
SOLES Noche de Ciencia
Computer Science Workshops
College Application Process (for Students and Parents)

Saturday, October 3
UCLA MESA Math Tutoring
JPL Invention Challenge Registration DEADLINE @ 12:00 AM

Saturday, October 17
UCLA MESA Math Tutoring

Wednesday, October 28 & Thursday, October 29
Cash for College: College & Career Convention

Friday October 30
MESA Enrollment Forms Due (minimum of 40 per advisor)

Saturday, October 31
UCLA MESA Math Tutoring

NOVEMBER 2015
November TDB
FAFSA Workshop

Saturday, November 7
UCLA MESA Math Tutoring

Saturday, November 14
UCLA MESA Math Tutoring

Wednesday, November 18
MESA Advisors/Counselor Webinar

Saturday, November 21
Prosthetic Arm 2.0 Workshop for Advisors
JPL Invention Challenge Regional Event

Wednesday, November 25
Engineers in Training Day (EIT): Host AISES, NSBE, SOLES

Monday, Nov. 30, 2015
Fall MESA Advisor Activity Log Due

DECEMBER 2015
Friday, December 4
JPL Invention Challenge Registration DEADLINE @ 12:00 AM
UCLA MESA CENTER CALENDAR 2015-16

JANUARY 2016
Wednesday, January 13  Winter MESA Advisors/Counselors Meeting
Saturday, January 16  MESA Saturday Academy #1 – Prosthetic Arm 2.0
Saturday, January 23  MESA Saturday Academy #2 – Mousetrap Car
Saturday, January 30  MESA Saturday Academy #3 – Balsawood Bridges

FEBRUARY 2016
Saturday, February 6  MESA Saturday Academy # 4 – Balsawood Plane/Glider
Saturday February 13  MESA Saturday Academy # 5 – EggXpress
Wednesday, February 17  MESA Prelims Advisors/Counselors Webinar
Saturday, February 20  MESA Saturday Academy #6 – Speak Out/Speak Up
Wednesday, February 24  MESA Prelims Advisors/Counselors Webinar
Friday, February 26  Youth Motivation Day (YMD) - Host AISES, NSBE, SOLES
Saturday, February 27  Senior MESA Day Prelims

MARCH 2015
Saturday, March 5  Junior MESA Day Prelims

APRIL 2016
Saturday, April 9  LA Metro Region SR. MESA Day Competition @ CSU Long Beach
Saturday, April 23  LA Metro Region JR. MESA Day Competition @ UCLA
Week of April 25  MESA Advisors Begin Pre-Enrollment Process

MAY 2016
May TBD  MESA Robotics Challenge at USC
Week of May 2  Individual Academic Planning Sessions for 8th grade students
Friday, May 16  Senior Exit Surveys and Spring MESA Activity Log Due
Friday, May 20  Women in Science and Engineering Day (WISE)–Host AISES, NSBE, SOLES
UCLA MESA School Service Agreement 2015 – 2016

MESA TEACHER/ADVISOR
Up to $2,000 per year

A. FOR STUDENTS: Coordinate the Involvement of Students in MESA’s Academic and College Prep Activities
   ☑ MESA Project Preparation and MESA Day Competitions (Preliminary and Final Events)
   ☑ Participate in STEM or College Planning Events: Example-JPL Challenge; MESA College Day at USC; UCLA Engineering SOG-Sponsored Activities (EIT/YMD/WISE)
   ☑ Organize opportunity to review students’ academic plans —Priority Grades 8-11 (Align student’s course planning with university admission requirements)
   ☑ Disseminate college-going materials (summer programs, scholarship/financial aid)

B. PROFESSIONAL DEVELOPMENT (PD)
   ☑ Teacher/Advisor Meetings: August, November and January
   ☑ Regional MESA Teachers Training Day or another PD Activity
   ☑ Judge MESA competition at Preliminary Event

C. SUBMIT REQUIRED FORMS
   ☑ MESA Advisor’s Profile Form
   ☑ Student Enrollment Forms with Parent Authorization Form (Minimum 40 students per teacher)
     Enrollment form submitted after deadline will receive a 10% reduction in the stipend amount
   ☑ MESA Activity Log submitted in December and May
   ☑ Assist with the collection of transcripts of MESA participant who graduated at the end of the academic year

UCLA MESA COUNSELOR
$1,000 per year

Assist 11/12th Grade Students with the College-Going Process
   ☑ Disseminate college-going material and information to 12th grade students
   ☑ Assist with the enrollment of 12th graders in MESA and their participation in college-focused events
   ☑ Provide transcripts of MESA participants who graduated at the end of the academic year
   ☑ Assist with Senior Exit Survey completion
   ☑ Co-Judge MESA Competition at High School Preliminary Event
   ☑ Participate in at least one MESA teacher/counselor meeting

SCHEDULE OF STIPEND PAYMENTS
   ☑ Installment 1: December – Maximum of 50% of stipend (contingent upon the receipt of Enrollment Forms & Fall Activity Log)
   ☑ Installment 2: June – Maximum 50% of stipend (contingent on receipt of Spring Activity Log)

Note: IUSD teacher will be paid by IUSD after Activity logs are submitted to the district office

PROJECT MATERIALS
   ☑ $170.00 per teacher (will be included in Installment 1 payment)
   ☑ Submit receipts with Activity Report in December and May
## Professional Development Workshops and Webinars

### September 26, 2015
**Southern MESA Advisory Regional Training (SMART)**

Time: 8:15 – 3:00 p.m.  
@ Chapman University

Participating advisors will learn how to build various projects and also receive tips on enforcing competition rules. Workshops include: Bridges, Mousetrap Car, Prosthetic Gliders, and Algebra the Hands-On Way

### September 26, 2015
**Prosthetic Arm 2.0 with Arduino**

Participating advisors will learn how the new rules for the Prosthetic Arm 2.0 National Competition and to program servo motors to work with the prosthetic arm.

### Date: TBD
**Invent for Life Workshop**

Participating teachers will be trained on how to teach the principles of problem solving and invention. The workshop can be taught in one 8-hour class or two 4-hour workshops. Teachers completing the workshop will receive an Invent for Life Workbook for use in the classroom. Workshop limited to 15 participants.

### Date: TBD
**Computer Science Workshop for Teachers**
SMART
Southern MESA Advisory Regional Training

SMART Workshops
Mousetraps, Bridges, gliders/planes, prosthetic arm without Arduino

OR

PAC 2.0 with Arduino

Registration
Deadline:  9/14
By email: vhammers@chapman.edu
or
mmichael@chapman.edu
Please include:
Name, School, Center and Email and whether you are registering for SMART or PAC 2.0

Saturday
September 26th
8:15am—3:00pm

Chapman University
1 University Dr.
Orange, CA 92866

We will begin a 8:15am with registration and continental breakfast. The last workshop ends at 2:30pm with checkout and evaluations from 2:30—3:00pm. Workshops will run 90 minutes and will be hands-on. Advisors will learn to build the various projects as well as receive tips about enforcing the rules.

Please make sure to use the parking pass provided to you after your registration. Campus map at link below:
Campus and parking
The UCLA science project and the California NanoSystems Institute Present the 11th Annual NanoScience Institute 2015-2016

Free workshops for high school & middle school teachers ~ Free laboratory kits for 90 students included ~ Get students excited about science ~ Connect to common core and next generation science standards

Teachers can sign up for one or more workshops from the following list

- **Solar Cells**
  - October 17
- **Superhydrophobic Surfaces**
  - November 14
- **Photolithography**
  - December 12
- **Biotoxicity**
  - January 21
- **Water Filtration**
  - February 23
- **Electrochemical Energy Storage**
  - March 19
- **Biopolymers**
  - April 16

50 nm
TEM Image of nanoAg synthesized by students in Biotoxicity

Appropriate for middle school and above

For more information and to register, visit [www.cnst.ucla.edu/nanoscience](http://www.cnst.ucla.edu/nanoscience). Contact: [highschoolnanoscience@cnst.ucla.edu](mailto:highschoolnanoscience@cnst.ucla.edu)
The CNSI High School Nanoscience Program currently has eight different experiments. The experiments give students hands-on experience with materials, methods, and devices, including self-assembly, magnetic fluids, chemical sensors, solar cells, photolithography, superhydrophobic surfaces (or the lotus effect), water purification, biopolymers and the toxicity of nanoscale systems compared to similar materials in bulk form.

The workshop starts off with a critical question related to the concept to be introduced. Discussion then takes place around this scientific or nanotechnology concept. The teachers do a “hands on” lab, guided by the graduate student and/or postdoc. The teachers conclude the workshop by discussing and reviewing the concepts presented, determining where the concept will fit into their curriculum and with what specific California Science Standard(s). Each teacher is given a kit, with enough materials for 90 students, to take back to their classroom.

**Note:** Once workshop class reaches capacity, precedence will be given to participants needing the core class.

**WORKSHOP ENROLLMENT**

To enroll in the CNSI NanoScience Institute workshops go to:

http://www1.cnsi.ucla.edu/conferences/hs-nanoscience/registration?registration_id=577382

**UCLA EXTENSION CREDIT (OPTIONAL)**

Teachers have the option of receiving UCLA extension credit for the workshops. Arrangements have been made through UCLA Center X to have teachers register and pay for UCLA Extension credit at the conclusion of their respective program’s core classes. Each 8:30 am to 1:00 pm class is equivalent to 1/2 a unit and extension requires each student to take a minimum of 1 and 1/2 units or 3 classes. Teachers must attend three or more workshops, implement the experiments into their classroom labs, and submit teacher and student feedback forms to receive credit.
CHALLENGE YOUR STUDENTS WITH HANDS-ON ACTIVITIES

The Invention Contest idea provided by Invent for Life can be adopted by your school during class or in an after school program. The six to seven week program empowers your students with a tool set that allows them to be creative and inventive for the rest of their lives.

Invention Contest Benefits

- A context for teaching force, mass, friction, kinetic & potential energy, and other physical science concepts in a non-threatening, fun environment
- Allows for teachable moments -- “what went wrong?”
- “Failure” is an option -- allows students to learn from their mistakes
- Allows for unfinished work to be guided by the teacher toward improvement: “how would you change this?”
- Students work in groups, and learn from each other
- A great way to draw out students who may not be engaged in learning
How the Invent for Life Program Works

Instructors from Invent for Life will train the teachers on how to teach their students the principles of problem solving and invention. Teachers will learn multiple ways to teach the program. The program is taught starting in 5th grade with refresher programs taught in 7th/8th grade science, and high school physics. By giving each student three exposures to the Invent for Life program, the students will be armed with the knowledge and tools that will allow them to be creative in any endeavor that they choose.

Once the teacher graduates from the Invent for Life program, they will select a simple, yet challenging contest idea from over a dozen possible choices (or make up their own contest). After determining the contest date (gaining permission from the school principal), the teacher will then teach the 10 step process of invention.

**STEP 1: Introduce the concept of the Invention Contest**
- Describe what an invention is and talk about how they are created

**STEP 2: Read all of the rules**
- The rules need to be understood by everyone, so have them ask questions

**STEP 3: Form teams of students**
- Teams need to be between 3 and 6 persons

**STEP 4: Get ideas on how to solve the problem**
- Demonstrate the brainstorming techniques learned on a sample project
- Encourage the student teams to use the brainstorming technique to get ideas for solving the Invention Contest problem

**STEP 5: Figure out which ideas should be pursued and create the design**
- Have each team member try to design their own invention (draw or sketch the ideas)
- Get together after everyone is done and try to figure out which invention to work on. More than one is OK, but one design is better to work on as a group

**STEP 6: Hold a review to ensure that the design is sound**
- Invite other people to help you (maybe a teacher or parent)

**STEP 7: Build the invention**
- Make sure that students are safe. Let adults work with power tools (for example)

**STEP 8: Test, redesign, and retest the invention**
- It’s amazing how many designs are never tested before the day of the contest. Not a good idea.
- Be sure to try it more than once. This usually takes the longest amount of time, so plan for it!

**STEP 9: Hold the contest**
- Get plenty of volunteers (parents are a good source
- Make sure that it is videotaped and photographed
- Emphasize that everyone is a winner. Award the best performers, most colorful, etc.

**STEP 10: Reflect on the overall activity**
- Have students fill out an questionnaire (on-line or during class)
- Teachers note student behavioral changes (attentiveness, participation, etc.)

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Other Activities for MESA Students

**AP Readiness Workshops at UCLA**
- 2015: September 19, October 17, November 14, December 12
- 2016: January 30, February 27, April 2, and April 23

See flyer for more information

**Cash for College—College and Career Convention—Oct. 28 - 29, 2015**

See flyer for more information

**College Day at USC — Oct. 31, 2015**

More information will be provided as event date approaches

**2015 JPL Invention Challenge—Nov. 21, 2015**

“Ball Fling Contest”
- Deadline to Register – Oct. 3, 2015
- **Note:** Complete competition rules provided on CD

**2016 MESA Robotics Competition—May 2016**

- Theme & Rules announced – Feb 2016

**Computer Science Workshop for Students - TBD**

This workshop will introduce students to programming. Details on workshop will be provided at a later date.

**East Coast West Coast Alice Competition (tentative)**

More information on the competition will be provided after competition information is finalized
Teach the **Hour of Code** in your classroom

Hour of Code is an opportunity for every student to try computer science for one hour.

You can also teach the Hour of Code all year-round. Tutorials will work on browsers, tablets, smartphones, or "unplugged."

Most kids don’t know what computer science is. Here are some ideas:

- Explain it in a simple way that includes examples of applications that both boys and girls will care about (saving lives, helping people, connecting people, etc.).

- Try: "Think about things in your everyday life that use computer science: a cell phone, a microwave, a computer, a traffic light… all of these things needed a computer scientist to help build them.”

- Or: “Computer science is the art of blending human ideas and digital tools to increase our power. Computer scientists work in so many different areas: writing apps for phones, curing diseases, creating animated movies, working on social media, building robots that explore other planets and so much more."

Go to [code.org](http://code.org) to find out more about Hour of Code and the need to promote Computer Science in your classroom.
AP SCIENCE, MATH, COMPUTER SCIENCE & ENGLISH STUDENTS AND TEACHERS!

UCLA’S AP READINESS PROGRAM 2015 - 2016

Wants you to learn and be better prepared for the AP tests in May!

Receive monthly Advanced Placement Instruction and Hands-On learning on the UCLA Campus in college classrooms.

Over 3,900 students & 230 teachers attended 2014-2015 with a 95% approval rate and 20% higher exam scores than the district average!

Test preparation offered for:
- BIOLOGY
- CHEMISTRY
- PHYSICS
- CALCULUS
- COMPUTER SCIENCE
- ENVIRONMENTAL SCIENCE
- STATISTICS
- Also - ENGLISH LANGUAGE & ENGLISH LITERATURE

AP Readiness Sessions are held once a month on Saturdays from 9:00am - 2:00pm. Check www.uclaapr.org for exact dates.

STUDENTS: Certificates are awarded to students that attend 4 or more sessions.

TEACHERS: A small stipend is available for each session you attend with your students.

To register or for more information visit:
www.uclaapr.org
or contact: James Keipp, Director
(310) 825-1324 or keipp@gseis.ucla.edu
College & Career Convention

Serving more than 10,000 students and families each year, the Annual College & Career Convention features college life seminars, financial aid presentations, scholarship information, and an exhibit hall with college/university representatives from throughout the United States. Now entering its 14th year, Cash for College has served 238,000 students, and remains the trusted go-to source for quality information about financial aid, college and careers.

WHEN:

School Field Trips to Convention
Oct. 28 & 29, 2015
8 a.m. – 1 p.m.

*School representative must register ahead of time for daytime visit to the Convention. For more information, please contact Maria Nieto (mailto:mnieto@lachamber.com).*

Family & Community Night
Wednesday, Oct. 28
5 – 8:30 p.m.

*Open to the public. Registration is requested, but not required to attend Family Night.*

WHERE:

Los Angeles Convention Center (http://www.lacclink.com/attendees/directions)
South Hall G
1201 South Figueroa St.
Los Angeles, California 90015
Funding Sources

Local Giving Program

Website: http://foundation.walmart.com/apply-for-grants/local-giving

Walmart believes in operating globally and giving back locally – creating impact in the neighborhoods where we live and work. Through the Local Giving Program, Walmart stores, Sam's Clubs and Logistics facilities can support the needs of their communities by providing grants to local organizations.

If you are applying for funding through a Sam's Club location, additional focus areas are considered. Learn more about the Sam's Club Giving Program.

Before applying, please note:

- The application deadline to apply for the 2015 cycle is **December 31, 2015**
- The Local Giving Program awards grants of $250 to $2,500 through each of our Walmart stores, Sam's Clubs and Logistics facilities.
- Organizations must be described as one of the following:
  - An organization holding a current tax-exempt status under Section 501(c)(3), (4), (6) or (19) of the Internal Revenue Code;
  - A recognized government entity: state, county, or city agency, including law enforcement or fire departments, that are requesting funds exclusively for public purposes;
  - A K-12 public or private school, charter school, community/junior college, state/private college or university; or
  - A church or other faith-based organization with a proposed project that benefits the community at large.
- Applications must be completed in full and submitted online to be considered.
- Submitting an online application does not guarantee funding.
- The facility manager and the grant administrator reserve the right to adjust the amount awarded to each organization without prior notice.

Please read the Local Giving Guidelines before beginning your application.

AIAA Foundation Classroom Grant Program

Website: https://www.aiaa.org/Secondary.aspx?id=4184
Grant Submission Period: Oct 1 – Nov. 16, 2015

AIAA Mission:
AIAA advances the state of aerospace, engineering and technical leadership. Grants will be considered twice a year. To be successful in obtaining a grant, we will be looking for:

- Grants that tie to the AIAA mission
- Grants that tie to national or local standards
- Grants that detail a lesson plan of what you plan to do with your students
**Earn up to $250 for your Science and Math Programs**

Support may be on the way for your classroom budget. As an AIAA Educator Associate, you’re invited to apply for a Classroom Grant from the [AIAA Foundation](https://www.aiaa.org/).  

Here’s how it works. Are you a K-12 teacher who develops or applies science, mathematics, and technology in your curriculum? If the answer is “yes,” you may qualify for a grant of up to $200 per individual request to supplement your learning program. Each school is limited to up to 2 grants per calendar year. Please note that the terms of the grant may be subject to change. To get started, JOIN AIAA as an Educator Associate. You will receive a confirmation e-mail with your Member ID, which you will need to submit the Grant Proposal.

**Website:** [http://www.ieeeusa.org/volunteers/committees/pec/teacher-grants.html](http://www.ieeeusa.org/volunteers/committees/pec/teacher-grants.html)

Promoting Novel Ideas to Introduce Engineering to Precollege Students: How Teachers Can Get IEEE-USA’s K-12 STEM Activity Fund

IEEE-USA’s K-12 Literacy Committee’s K-12 STEM Activity Fund helps teachers to sponsor innovation and creativity in or outside of the classroom. These funds provide small amounts of money for novel ideas that introduce engineering to students.

**IEEE K-12 STEM Activity Fund Requirements:**

- The program/project must be a new and/or unique idea*
- The program/project must take place in 2015†
- The teacher must work with an IEEE member (the IEEE member can be a partner, mentor, or a resource member)

* NOTE: The purpose of the K-12 STEM Activity Fund is to implement unique and new ideas/projects/programs. K-12 STEM Activity Funds will not be provided for pre-existing or “canned” projects such as FIRST Robotics Competitions, BEST Competitions, and Project Lead the Way implementation unless it is an IEEE program such as implementation of an IEEE Teacher In-Service Program. Funds will typically not be provided for capital goods such as laptops, printers, video recorders, etc. Funds awarded are typically up to $500.

† NOTE: There is no specific deadline. Applications are currently being accepted and will be considered on a rolling case-by-case basis.

---

**David Iams**  
IEEE-USA  
2001 L Street, N.W., Suite 700  
Washington, DC 20036-4928  
(Phone) 202-530-8374  
(Fax) 202-785-0835  
(E-mail) [d.iams@ieee.org](mailto:d.iams@ieee.org)
**Website:** [http://www.toshiba.com/taf/612.jsp](http://www.toshiba.com/taf/612.jsp)

**Grants For Grades 6 - 12**

Wanted: Classroom Innovators! Toshiba America Foundation is currently accepting applications from teachers who are passionate about making science and mathematics more engaging for their students.

Do you teach 6-12 science or math? Do you have a wish list of instructional equipment that will make learning more exciting for your students? If the answer is yes to these questions, Toshiba America Foundation would like to hear from you.

**6-12 Grants**

Grade 6-12 applications for $5,000 or less are accepted on a rolling basis, throughout the calendar year. Grants requests of more than $5,000 are reviewed twice a year. Applications for grants of more than $5,000 are due August 1st and February 1st each year.

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**Website:** [http://www.toolboxforeducation.com/](http://www.toolboxforeducation.com/)

**Submission Deadline:** Oct. 16, 2015 at 8:59 p.m. PST

Raise up to $5,000 for your school in minutes. It's almost that easy when you take advantage of Lowe's Toolbox for Education grant program. Lowe's Charitable and Educational Foundation (LCEF) knows how hard you work for your kids and your community and we're dedicated to helping your parent-teacher group achieve even more for your school. Apply for our Toolbox for Education Grant now and build on your already impressive parent group success with Lowe's.

The deadline for submitting applications for this grant cycle is October 16, 2015 8:59 p.m. PST. However, if 1500 applications are received before the application deadline, then the application process will close.

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**American Honda Foundation Grants For Youth Education**


**Funding Category:** STEM

**Grant Amount:** $20,000 to $75,000

**Deadline:** November 1, 2015; February 1, 2016; May 1, 2016; August 1, 2016

**Description:** The American Honda Foundation’s goal is to help meet the needs of American society in the areas of youth and scientific education by awarding grants to non-profits, while strategically assisting communities in deriving long-term benefits. Specifically, the American Honda Foundation’s main areas of interest include education in science, technology, engineering, mathematics, the
environment, job training, and literacy. Organizations may only submit one request for funding within a 12-month period.

**Eligibility:** 501(c) (3) public charity or public school district or public/private elementary and secondary schools as listed by the U.S. Department of Education’s National Center for Education Statistics (NCES).

**To Apply:**
http://www.cybergrants.com/pls/cybergrants/quiz.display_question?x_gm_id=2587&x_quiz_id=1338&x_order_by=1

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**Voya Unsung Heroes Awards Program**

**Website:** [https://unsungheroes.scholarshipamerica.org/](https://unsungheroes.scholarshipamerica.org/)

**Description:** For more than 15 years, and with nearly **$4 million** in awarded grants, Unsung Heroes has proven to be an A+ program with educators. The program's "alumni" have inspired success in the classroom and impacted countless numbers of students. Each year, 100 educators are selected to receive $2,000 to help fund their innovative class projects. Three of those are chosen to receive the top awards of an additional $5,000, $10,000 and $25,000.

The Unsung Heroes Awards Program is administered by Scholarship Management Services, a division of [Scholarship America](https://www.scholarshipamerica.org/). Scholarship Management Services is the nation's largest designer and manager of scholarship and tuition reimbursement programs for corporations, foundations, associations and individuals.

**Deadline:** Apply by **April 30, 2016.**

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**Air Force Educators Grant**

**Website:** [http://www.afa.org/AFA/InformationFor/Teachers/EducatorGrants](http://www.afa.org/AFA/InformationFor/Teachers/EducatorGrants)

**Submission Deadline:** Nov. 18, 2015

**Description:** The Air Force Association believes that one of the most significant means to affect student learning is to fund grants to meet the unmet and unfunded educational needs of students. Each school year, the Association awards grants of up to $250 to worthy projects that significantly influence student learning.

The grant process is competitive in nature. A committee comprised of outside experts in the field of aerospace education will review all qualified grant applications and make recommendations on funding. Based upon the funding available, the Association will choose to invest in projects that best serve our nation’s students and support the mission of the Air Force Association.

The Educator Grant program promotes aerospace education activities in classrooms from kindergarten through twelfth grades. The program encourages development of innovative aerospace activities within the prescribed curriculum.

Questions regarding the Educator Grant program should be directed to the program manager via e-mail at field@afa.org.
**NCTM Grants**

**Website:** [http://www.nctm.org/resources/content.aspx?id=1328](http://www.nctm.org/resources/content.aspx?id=1328)

**Submission Deadline:** Nov. 6, 2015 & May 6, 2016

**Description:** Apply for NCTM’s Mathematics Education Trust grants, scholarships, and awards. Funding ranges from $1,200 to $24,000 and is available to help math teachers, prospective teachers, and other math educators improve the teaching and learning of mathematics.

**Deadline: Nov 06, 2015**

**Lifetime Achievement Award**
The NCTM Lifetime Achievement Award honors current members of NCTM who have exhibited a lifetime of achievement in mathematics education at the national level.

**Grades:** Other initiatives

**7-12 Classroom Research Grants**
Grants of up to $6,000 are provided to support collaborative classroom-based action research in precollege mathematics education involving college or university mathematics educators.

**Grades:** 6-8, 9-12

**Improving Students' Understanding of Geometry Grants**
Grants of up to $4,000 are awarded to classroom grades Pre-K–8 teachers to develop a project or activities that will enable students to better appreciate and understand some aspect of geometry that is consistent with the NCTM *Principles and Standards*.

**Grades:** PreK-5, 6-8

**Pre-K-6 Classroom Research Grants**
Grants of up to $6,000 are provided to support collaborative classroom-based action research in precollege mathematics education involving college or university mathematics educators.

**Grades:** PreK-5, 6-8

**Teacher Professional Development Grants (6-8)**
Grants of up to $3,000 are provided to classroom teachers to improve their own professional competence as classroom teachers of mathematics.

**Grades:** 6-8

**Connecting Mathematics to Other Subject Areas Grants (9-12)**
Grants of up to $4,000 are provided to develop classroom materials or lessons connecting mathematics to other disciplines or careers.

**Grades:** 9-12

**Engaging Students in Learning Mathematics Grant (6-8)**
Grants of up to $3,000 are provided to classroom teachers to incorporate creative use of materials to actively engage students in tasks and experiences designed...

**Grades:** 6-8

**Equity in Mathematics Grants (6-8)**
Grants of up to $8,000 are provided to classroom teachers to incorporate middle school classroom materials or lessons that will improve the achievement of groups of students who have previous records of underachievement.

**Grades:** 6-8

**Teacher Professional Development Grants (9-12)**
Grants of up to $3,000 are provided to classroom teachers to improve their own professional competence as classroom teachers of mathematics.

**Grades:** 9-12

**Mathematics Course Work Scholarships for Grades Pre-K-5 Teachers**
Scholarships of up to $2,000 are provided to classroom teachers to pursue courses to improve their mathematics content knowledge.
Grades: PreK-5

**Emerging Teacher-Leaders in Elementary School Mathematics Grants**
Grants with a maximum of $6,000 will be awarded to a teacher-leader in elementary school mathematics. The recipient will collaborate with other teachers to select specific mathematics content...
Grades: PreK-5

**Teacher Professional Development Grants**
Grants of up to $3,000 are provided to classroom teachers to improve their own professional competence as classroom teachers of mathematics.
Grades: PreK-5

**Future Leader Initial NCTM Annual Meeting Attendance Awards**
Grants of up to $1,200 + meeting registration are provided for travel, subsistence expenses, and substitute teacher costs of NCTM members who are classroom mathematics teachers in grades Pre-K–12 and have never attended an NCTM annual meeting.
Grades: PreK-5, 6-8, 9-12

**Mathematics Study Grants (6–8)**
Grants with a maximum of $6,000 will be awarded to classroom teachers to improve their understanding of mathematics by completing course work in mathematics content.
Grades: 6-8

**Mathematics Graduate Course Work Scholarships for Grades 9–12 Teachers**
Scholarships of up to $2,000 are provided to classroom teachers to pursue courses to improve their mathematics content knowledge.
Grades: 9-12

**Prospective Teacher NCTM Annual Conference Attendance Award**
Awards of up to $1,200 + conference registration are provided for travel and subsistence expenses to help support attendance at an NCTM annual or regional meeting by full-time undergraduate students...
Grades: Prospective Teachers

**Using Music to Teach Mathematics Grants**
Grants of up to $3,000 are provided to classroom teachers currently working at the grades Pre-K–2 level for projects and activities that use music to teach mathematical skills and concepts.
Grades: PreK-5

**Mathematics Graduate Course Work Scholarships for Grades 6-8 Teachers**
Scholarships of up to $2,000 are provided to classroom teachers working at the required grade level to pursue courses to improve their mathematics content knowledge.
Grades: 6-8

**Deadline: May 06, 2016**

**School In-Service Training Grants (6-8)**
Classroom teachers receive up to $4,000 for support of in-service programs.
Grades: 6-8

**School In-Service Training Grants**
Classroom teachers receive up to $4,000 for support of in-service programs.
Grades: PreK-5

**Program of Mathematics Study & Active Professionalism Grants**
A program grant of up to $24,000 will be awarded to a classroom grades Pre-K–6 teacher seeking to improve his/her understanding and appreciation of mathematics by completing course work in school mathematics content and pedagogy working toward an advanced degree...
Grades: PreK-5, 6-8

**Prospective Middle School Mathematics Teacher Course Work Scholarships**
A scholarship, up to $3,000, will be awarded to a full-time college or university junior who is pursuing a career goal of becoming a certified teacher of middle (grades 6–8) school mathematics.
Grades: Prospective Teachers

**Enhancing Student Mathematics Learning through the Use of Tools and Technology Grants (Pre-K-12)**

Grants of up to $3,000 are awarded to persons currently teaching mathematics in grades Pre-K-12 for the innovative use of technology and other tools to "help teachers and students visualize and concretize mathematics abstractions..."

Grades: PreK-5, 6-8, 9-12

**Pre-K–8 Preservice Teacher Action Research Grants**

A grant with a maximum of $3,000 will be awarded for action research conducted as a collaborative by university faculty, preservice teacher(s), and classroom teacher(s) ...

Grades: PreK-5, 6-8

**Prospective 7-12 Secondary Teacher Course Work Scholarships**

Scholarships, up to $10,000, will be awarded to full-time college or university sophomores who are pursuing a career goal of becoming a certified teacher of secondary (grades 7–12) school mathematics.

Grades: Prospective Teachers

**Professional Development Scholarship Emphasizing the History of Mathematics**

A scholarship with a maximum of $3,000 will be awarded to an individual currently teaching mathematics at the grades 6–12 level to complete credited course work in the history of mathematics...

Grades: 6-8, 9-12

**School In-Service Training Grants (9-12)**

Classroom teachers receive up to $4,000 for support of in-service programs.

Grades: 9-12
# UCLA MESA Center Resources & Websites

- [www.ceed.ucla.edu](http://www.ceed.ucla.edu) | CEED Website – access for all info about CEED Pre-College Program
- [www.mesa.ucop.edu](http://www.mesa.ucop.edu) | MESA Statewide Website – access website for
  - MESA information and newsletters
  - MESA Demographics and Statistics
  - MESA Day Rules by Grade Level
  - MESA Resources Project Curriculum (password protected)
  **Username:** msp_teacher  **Password:** Skool5

## UCLA ENGINEERING STUDENT ORG CONTACT INFO

<table>
<thead>
<tr>
<th>Board Position</th>
<th>Name</th>
<th>E-Board Email</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AISES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>President</td>
<td>Salvador Perez</td>
<td><a href="mailto:president@aisesucla.org">president@aisesucla.org</a></td>
</tr>
<tr>
<td>External Vice President</td>
<td>Melissa Moz</td>
<td><a href="mailto:externalvicepresident@aisesucla.org">externalvicepresident@aisesucla.org</a></td>
</tr>
<tr>
<td>Internal Vice President</td>
<td>Jessica Douma</td>
<td><a href="mailto:internalvicepresident@aisesucla.org">internalvicepresident@aisesucla.org</a></td>
</tr>
<tr>
<td>Outreach Coordinator</td>
<td>Dakota Duffy</td>
<td><a href="mailto:outreachcoordinator@aisesucla.org">outreachcoordinator@aisesucla.org</a></td>
</tr>
<tr>
<td>Treasurer</td>
<td>Marisol Cira</td>
<td><a href="mailto:treasurer@aisesucla.org">treasurer@aisesucla.org</a></td>
</tr>
<tr>
<td>Secretary</td>
<td>Kathryn Benson</td>
<td><a href="mailto:secretary@aisesucla.org">secretary@aisesucla.org</a></td>
</tr>
</tbody>
</table>

| **NSBE**       |                          |                                        |
| President      | Morolake Omoya           | ucla.nsbepresident@gmail.com          |
| Vice President | Winston Boyce            | ucla nsbevp@gmail.com                 |
| Pre-Collegiate Initiative Chair | Edgar Mendoza       | ucla.nsbepci@gmail.com               |
| Treasurer      | Gabriel Biren            | ucla nsbetreasurer1@gmail.com         |
| Secretary      | Eric Bratton             | nsbe Bruins@gmail.com                 |
| Finance Chair  | Hadiza Felicien          | ucla nsbefinancechair@gmail.com       |
| Public Relations Chair | Miles Gibson            | ucla nsbepr@gmail.com                |

| **SOLES**      |                          |                                        |
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| Vice President | Melissa Soon             | uclasoles.vp@gmail.com                |
| Outreach Director | Gabriella Bustamante     | profes.ucla@gmail.com                |
| Treasurer      | Erick Corona-Quiles      | uclasoles.treasurer@gmail.com         |
| Academic Chair | Steven Gomez             | uclasoles_academicchair@gmail.com    |
| Activities Coordinator | Nico Magana            | uclasoles.ac@gmail.com               |
| Secretary      | Athena Athanssis         | uclasoles@gmail.com                   |
**BUSES** – for educational trips

**LAUSD** - LAUSD School must contact their city council member

<table>
<thead>
<tr>
<th>District</th>
<th>Schools</th>
<th>Councilman</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 4</td>
<td>Burroughs MS</td>
<td>Tom Labonge</td>
<td>(213) 485-3337, (213) 473-7004, Fax: (213) 624-7810</td>
</tr>
<tr>
<td>District 5</td>
<td>Emerson MS, Fairfax HS, Hamilton HS</td>
<td>Paul Koretz</td>
<td>(213) 473-7005, (310) 289-0353, Fax: (213) 978-2250</td>
</tr>
<tr>
<td>District 8</td>
<td>ASE, Audubon Crenshaw HS, View Park Academy</td>
<td>Bernard Parks</td>
<td>(213) 473-7008, (213) 485-7616, Fax: (213) 472-5982</td>
</tr>
<tr>
<td>District 10</td>
<td>Cochran MS, Dorsey, LACES, Los Angeles HS, UCLA Community School</td>
<td>Herb Wesson</td>
<td>(213) 473-7010, (213) 733-8233, Fax: (213) 485-9829</td>
</tr>
<tr>
<td>District 11</td>
<td>Webster MS, WESM, University HS</td>
<td>Bill Rosendahl</td>
<td>(213) 473-7001, (310) 575-8461, Fax: (213) 473-6926</td>
</tr>
</tbody>
</table>

**IUSD** - Inglewood schools can make a request for buses from principal
City Council Office (310) 412-5320 (This office does not offer busses)

### SUPPLIES AND MATERIALS

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Website</th>
<th>Items</th>
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</thead>
<tbody>
<tr>
<td>Kelvin Electronics</td>
<td><a href="http://www.kelvin.com">www.kelvin.com</a></td>
<td>Balsawood and other STEM items</td>
</tr>
<tr>
<td>S&amp;S Office Depot</td>
<td><a href="http://www.ssww.com">www.ssww.com</a> <a href="http://www.officedepot.com">www.officedepot.com</a></td>
<td>Craft Sticks</td>
</tr>
<tr>
<td>PITSCO</td>
<td><a href="http://www.pitsco.com">www.pitsco.com</a></td>
<td>Glider kits and other STEM items</td>
</tr>
<tr>
<td>Doc Fizzix</td>
<td><a href="http://www.fizzix.com">www.fizzix.com</a></td>
<td>Mousetrap Car and parts</td>
</tr>
<tr>
<td>Create for Less</td>
<td><a href="http://www.createforless.com">www.createforless.com</a></td>
<td>10” Bates Embroidery Hoop</td>
</tr>
<tr>
<td>Morgan Quilting</td>
<td><a href="http://www.nosliphoops.com">www.nosliphoops.com</a></td>
<td>14” No Slip Ridge Hoop</td>
</tr>
</tbody>
</table>

*An additional vendor list is provided on the CD*
Google Suite - Instructions

Table of Contents

1. Install Add-Ons
2. Google Forms
3. Google Forms and Flubaroo - Creating Quizzes
4. Form Limiter
5. FormRanger
6. FormMule
7. Google Classroom

YouTube Videos

Google Forms: https://goo.gl/yLWUPq

Flubaroo: https://goo.gl/gUUt0v

FormLimiter: https://goo.gl/SeOFlo

FormRanger: https://goo.gl/HxOSj5 and https://goo.gl/X0ZhPB

FormMule: https://goo.gl/dXEHQH and https://goo.gl/jbzkhQ

Google Classroom 101 Video: https://goo.gl/LJjAgg

Classroom Help Center: https://goo.gl/Ve9RsA

Google Classroom - Set Up and Tips for Teachers: http://goo.gl/Sdtycm
Google Suite - Instructions

Install Add-Ons
Before you can use an add-on, the add-on must be installed.

To install an add-on follow the directions below:
1. Open a blank document (Google, Sheets, Docs or Forms) to install the add-on
2. Click on “Add-Ons” drop down menu at the top of the page.
   3. Click “Get Add-Ons”
3. Enter the name of the add-on you want to install
4. Click “Install” and allow the add-on to access your files.

Google Forms
Allows user to create form to collect information from individuals

Instructions:
1. Open Google Drive
2. Click ‘New’ button, scroll drop down menu to “More”, then choose “Forms’
3. Rename the “Untitled form”
4. The initial questions should ask for student’s identifying information such as
   a. First Name
   b. Last Name
   c. Email Address
   d. Student ID
5. Proceed to create form questions. The question can be
   a. multiple choice
   b. checkboxes (more than one answer)
   c. grid
   d. choose from a list
   e. input text
   f. Click the “Required” box insure that each questions is answered
6. After you have completed the form, you can write a personalized message that will appear when students submit the quiz in the conformation section at the end of the form.
7. Check the Forms Setting section at the top of the to make sure that the second option is not checked. Use this only if all students have a Google account. Otherwise, the student will not be able to access the form
8. Make sure that none of the checkboxes are deselected in the confirmation page section of the form.
   You do not want the student to be able to resubmit a form
   You do not want publish the form results (this shows all the answers submitted)
   You do not want the students to edit their responses after they have submitted the quiz.
Google Suite - Instructions

9. Whenever a form is created a Google sheet is automatically created in the Google Drive to collect the form responses. The sheet will be called “Form Name (Responses)”

The form can be accessed by clicking the “View Responses” tab.

The “Responses” tab updates the count of the number of responses submitted to the form.

Creating Quizzes - Using Google Form and Flubaroo

The following methods allow you to create a form which auto grades and send each students an email with their quiz score and a summary of each answer. You will have the option to provide students with the correct solution.

Instructions:

1. Open Google Drive

2. Create a quiz by following the instructions provide in the “Google Forms” instructions.
   a. Make sure that in addition to first and last name, email address is one of the identifiers requested at the beginning of the form. You need this information to send the quiz results to the students email address.
   b. Be careful using questions that require input from students. If the student spells an answer incorrectly, they will get the answer wrong.
   c. For each question created, you can randomly order the answers by choosing “Shuffle Option Order” under each “Advanced Settings”.

3. Create an answer key by clicking the “View live form” icon and completing the form. Instead of entering a name use “Answer” and “Key” and the first and last name

4. Open the Google sheet associated with the form and click the “Add-Ons” tab and choose “Get add-ons”
   a. Search for the Flubaroo add-on
   b. Once the add-on appears click on the add-on to download it
   c. The add-on will ask for access to your account
   d. Once the add-on is downloaded it will appear on you “Add-on” drop down menu

5. Click the Add-ons tab to choose Flubaroo then choose “Enable Flubaroo in this sheet”

6. Choose Grade Assignment under Flubaroo to set up grading for the quiz.

7. A Flubaroo drop down menu will appear that will allow you to set up how the quiz will be graded. Flubaroo will automatically assign student identifiers and quiz question.

Step 1: Review the assignment to make sure that identifiers and quiz questions are selected properly. You can also make the following changes.
Google Suite - Instructions

i. change point values
ii. skip questions to be graded

Step 2: Choose the form submission that will serve as your Answer Key

Step 3: Click continue you create “Grades” Sheet. The “Grades” sheet will provide you with a summary of all form responses and provide a point distribution for each submission.

8. Flubaroo automatically highlights form submissions that have a grade below 70% If you want to change this, choose Advanced on the Flubaroo drop down menu.

The advanced setting menu also allows you to indicate a return address email.

9. If you want students to receive an email informing them of their quiz grade, choose “Enable Autograde” Under the Flubaroo-Advanced menu. Changes cannot be made after autograding is enabled.

For more information on Flubaroo go to www.flubaroo.com

Form Limiter
Allows user to set a cut off time for form responses. The form can be cut off based on 3 options
a. date and time
b. max number of form responses
c. specific value of a destination cell

Instructions:
1. Open Google Drive
2. Click “New” button, scroll drop down menu to “More” then choose Forms
3. Replace “Untitled form” with the name you are giving your form
4. Click the “Add-Ons” tab and choose “Get add-ons”
5. Search for FormLimiter.
6. Download the add-on and allow to access your google account.
7. FormLimiter will appear on the “Add-ons” drop down menu.
8. On the Add-Ons drop down menu, click FormLimiter - Set Limit
9. Set up form cut-off using the pop-up menu that will appear on the right side of the form

FormRanger *
Allows user to populate a drop down menu, multiple choice, of check box choices for a list in Sheets that or alter the choices on a form based on previous form responses.

Populating Question Choices for Google Sheets

Step 1: Create a new spreadsheet and attach a form
First, create a new spreadsheet and insert a form. In this example we have the following fields:
While creating our form set the “Student Name” question type to “Choose from a list”, but leave the options blank for now. We will be using formRanger to populate the “Student Name” question options.

Step 2: Add a new sheet with student contact information

We will next add a student roster with the following contact information for each student:

Step 3: Install and Setup formRanger

Next we are going to install formRanger from the Google Apps Script Gallery.
installed a script before, see this mini-tutorial.

After installing and authorizing the formRanger script, you will see a new formRanger drop down menu. Click it and select “Run initial configuration”:

The script will do some things in the background. After it finished, click the formRanger menu again and select “Assign form item(s) to column(s)”:  

This will pull up the formRanger user interface. Any form field that is either a drop down, check box, or multiple choice is able to be linked to a range in a spreadsheet via formRanger. You do this by clicking the checkbox in the formRanger user interface next to the corresponding field. You then tell formRanger which sheet contains the relevant range, and which column in that sheet contains the relevant data.

You can have as many form fields linked to spreadsheet ranges as you like. And the forms can live in multiple sheets in your spreadsheet. In our example we will just linking a single form field--student name. Click “Save settings” when you are finished.
Google Suite - Instructions

After saving your settings, if you go into our live form you will see that the Student Name field has been updated to include the students from our StudentRoster sheet.

Now, if we add or remove students to our roster, we can quickly update the form to reflect those changes. In our example we have added a new student, Doug, to our roster. After adding the new name, we go back into the formRanger menu and click “Refresh form” to update the form:
Back in our live form, you’ll now notice that our Student Name field has been updated to include Doug.

*Required

**Behavior Logger (Register)**

**Student Name**

Bonnie  
Connie  
Donnie  
Johnny  
Lonnie  
Ronnie  
Doug

**Time of Incident**

3/05/2013 11:30 AM

**Type of Incident**

- Doug

*Populating Form based on Previous Form Submissions*

Step 1: Create a Workshop Sign-up Form attached to a spreadsheet

For this tutorial we are going to create a simple workshop registration form. The form will only ask for two things: the user’s name and the workshop they want to attend.

We will populate the workshop drop down list using formRanger, like in example case I above. However, unlike in example case I, we are going to do some fancy formula footwork to populate the list with only those workshops that still have available space.
Step 2: Create a new sheet to calculate available workshop space

In the form-attached spreadsheet, I next created a new sheet and named it “WorkshopCapacity”. In the first column I have the name of each workshop, and in the second column the total number of spaces available.

Next we want to calculate how many people have registered for each workshop. To do this, we will use three functions nested within the other.

The first is the FILTER function, which we will use to filter all of the form responses by the workshop we want to count. For row 2 of our spreadsheet, this function will look like this:

=filter(‘Form Responses’!C:C,’Form Responses’!C:C=A2)

Because the filter function will return #N/A if there are not any matches in the source range, we want to wrap the function in an IFERROR function. This will suppress the error message. Now our function looks like this:

=iferror(filter(‘Form Responses’!C:C,’Form Responses’!C:C=A2))

Now we want to count the output of this function. So we will wrap this function in a COUNTA
Google Suite - Instructions

function, so we have:

=COUNTA(IFERROR(FILTER('Form Responses'!C:C,'Form Responses'!C:C=A2)))

In English, this function is saying: “Filter the Form Responses sheet for the workshop in cell A2. Then count how many you find. But don’t count the error message if you don’t find anything.”

We now have the zeros in each row in column C, because no one has registered yet:

<table>
<thead>
<tr>
<th>Workshop Name</th>
<th>Total Capacity</th>
<th>Current Registration</th>
<th>Open Workshops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the Common Core</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Using digital learning tools in the classroom</td>
<td>20</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Classroom Management Strategies 101</td>
<td>25</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Next, we want to determine whether there is still open space for each workshop. To do this we will use the IF function. The IF function says: If [some expression] is true, output this, otherwise output this. We want to compare the Current Registration column to the Total Capacity column, and IF the Current Registration is less than the Total Capacity, return the Workshop Name. Otherwise, return nothing.

Our function looks like this:

=IF(C2<B2,A2,””)

We can copy this function down each of our rows in column D.

<table>
<thead>
<tr>
<th>Workshop Name</th>
<th>Total Capacity</th>
<th>Current Registration</th>
<th>Open Workshops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the Common Core</td>
<td>30</td>
<td>0</td>
<td>Understanding the Common Core</td>
</tr>
<tr>
<td>Using digital learning tools in the classroom</td>
<td>20</td>
<td>0</td>
<td>Using digital learning tools in the classroom</td>
</tr>
<tr>
<td>Classroom Management Strategies 101</td>
<td>25</td>
<td>0</td>
<td>Classroom Management Strategies 101</td>
</tr>
</tbody>
</table>

Next, in column E, we want to use our FILTER function again, this time to create a filtered list of only the Open Workshops (if we didn’t do this, later when we install formRanger we would get blank options in our drop down menu). To do this, we use the following function:

=FILTER(D2:D4,D2:D4<””)

In English, we are saying: “Filter cells D2 to D4 for workshop name wherever workshop name is not blank”

(Note: Edited on 5/12 to include this last step)

FINALLY, we are going to wrap our function in column E in an “IFERROR” function. If we don’t do this, you will get an “#N/A” error when all of your sessions have filled up. The #N/A is saying that it tried to filter your data for the criteria you specified, but it didn’t find any matches. Wrapping the function in an IFERROR will instead return an empty cell.

=IFERROR(FILTER(D2:D4,D2:D4<””))
NOTE: These are definitely some more advanced functions. Take some time and make a copy of the spreadsheet created for this tutorial. Play with the functions to see how they work.

Step 3: Attach formRanger & Set Trigger

Now we will go to the Script Gallery and install formRanger. We want to link question 2 to column E in our WorkshopCapacity sheet.

See Step 3 in Case I above for directions on installing and setting up formRanger.

Next we need to tell formRanger to refresh itself after each form submission. Eventually, the workshops will become full and the names will be removed from the formRanger List column in our WorkshopCapacity sheet. We need formRanger to refresh the dropdown to reflect this.
Google Suite - Instructions

Set triggers for form refresh

Decide how you want to trigger the refresh of Spreadsheet-linked form options

- On every form submit
- On every spreadsheet edit
- Every 5 minutes

Save trigger settings

That's it! Now our workshop will adjust to reflect available capacity. Notice that our workshop “Using digital learning tools in the classroom” has reached its capacity and has been removed from our formRanger List in column E.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tbody>
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<td>Workshop Name</td>
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<td>3</td>
<td>Using digital learning tools in the classroom</td>
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<td>20</td>
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</tbody>
</table>

NOTE: formRanger cannot refresh forms that have already been open in someone’s browser. It is possible that if multiple people are using your form at the same time you can get into a situation where your limit is reached but forms are already open in other browsers, so when those forms are submitted your limit is exceeded. So, say you have 1 slot left, and two people open your form at the same time. There is not a way to prevent them both from signing up for the same slot.

New Vision for Public Schol Website: http://cloudlab.newvisions.org/

FormMule
Alls you to create and send emails based on a specific criteria
Allows you send automated responses when forms are submitted.

Instructions:
1. Open the response sheet link to the specific form you want to have send automated emails.
2. Click the “Add-Ons” tab and choose “Get add-ons”
3. Search for FromMule.
4. Download the add-on and allow to access your google account.
5. FormMule will appear on the “Add-ons” drop down menu.
6. On the add-ons drop down menu, click FormMule - Launch
Google Suite - Instructions

7. On the pop-up that appears:
   a. Choose the name of the sheet from which the add-on will pull information
   b. Turn on triggers for how the email will be sent: Form Submission or Timer. If you want to send the emails manually, do not turn either of the triggers on.
   c. Click “Save template settings”, then click “Edit Templates”
   d. Choose the number of email templates you want to create and set the condition upon which each email template will be sent.
      i. You can create up to 20 email templates that will be sent based on a specific form response.
      ii. Indicate the condition under which each email template will be sent
      iii. To send the same email to everyone, create 1 template, keep the send condition on “Send for all rows”
      iv. Save template settings.
   e. Create your email templates.
      i. There will be a drop down menu containing the names of each of the templates you create.
      ii. Choose the template you want to write.
      iii. To the right, there will be a Add Merge Tags list that allows you to insert values from the Google Sheet into the email template. The merge items are the column names from the Google Sheet.
         1. Click on “To” box then click “Email Address” from the Add Merge Tags List
         2. Enter the “Reply-To” email
         3. Write the email. Insert merge tags to personalize the email.
         4. Repeat steps 1-3 for each template.
         5. Click “Preview and Send All to view each each template to insure the merge information is inserted correctly.
         6. To manually send emails, click the “Send Now” button after reviewing the templates.
         7. If emails will be sent via a trigger, click the “Cancel” button after creating the templates

Yet Another Mail Merge (YAMM)
Allows you to send personalized email in bulk using Gmail and Google Sheets

Instructions:
   1. Write and email and and close it to save in “Drafts” folder
      a. To insert personalized info the email insert data from the Google Sheets using the following format
         i. $%Column Name%
         ii. Ex. Dear $%First Name% - insert all the name in the column called “First Name” and send the email to the email address provide in the email address column
Google Suite - Instructions

2. Open a Google Sheet form and input all the personalized information you would like to input into the email i.e Name, email address, time, note, etc
3. To insert personalized info the email insert data from the Google Sheets using the following format
   a. $%Column Name%
   b. Ex. Dear $%First Name% - insert all the name in the column called “First Name” and send the email to the email address provide in the Email Address Column
4. The email address should be in last column of your data. Name the column “Email Address”
5. Click the “Add-ons” tab on your menu and choose “Yet Another Mail Merge” from the pop-up menu. If you do not have see the YAMM on the drop down menu click the “Get Add-Ons”, search for YAMM and install the add-on. Follow the instructions above
6. After choose YAMM for the drop down menu, choose “Get Started” from the second menu that pops-up
7. A 3rd pop-up will appear with your name and email address. Click the arrows to the right of the draft box to view the list of your email drafts.
8. Find the subject of the email draft you want to send.
9. Check send test to check that the personalized information is inserted into the test email
10. Click the “Send” button on pop-up to send the email. Check the send folder in Gmail to view the emails sent.

Doctopus

Doctopus makes it easier for teachers to share, organize, and assess student work in Google Drive.

Its tentacles copy and "hand out" Drive files to a roster of students, giving teachers full control over starter template, sharing configuration, folder organization and file naming, as well as full visibility over all work in progress -- including the ability to bulk revoke and revert student editing rights.

Instructions:

1. Open the response sheet link to the specific form you want to have send automated emails.
2. Click the “Add-Ons” tab and choose “Get add-ons”
3. Search for Doctopus.
4. Download the add-on and allow to access your google account.
5. Doctopus will appear on the “Add-ons” drop down menu.
Google Suite - Instructions

Google Classroom

About
Classroom is designed to help teachers create and collect assignments paperlessly, including time-saving features like the ability to automatically make a copy of a Google document for each student. It also creates Drive folders for each assignment and for each student to help keep everyone organized. You must have Google Apps for Education to access Google Classroom.

To register to get Google Apps for Education go to: https://goo.gl/VEJ28t. The account has to be set up by the school IT administrator. Once the account is set up any teacher at your school can use Google Classroom. There is no cost to set up a Google Apps for Education account.

Students can keep track of what's due on the Assignments page and begin working with just a click. Teachers can quickly see who has or hasn't completed the work, and provide direct, real-time feedback and grades right in Classroom.

Set Up a Classroom
1. Go to classroom.google.com or navigate to Google Classroom from your email by clicking on the apps symbol in the top right corner, clicking “More,” and then “Classroom.”
2. Under “Get started using Classroom,” select that you are a teacher.
3. At the top right, click + to create a class.
4. Name your class (e.g. Computer Science I) and label the section (e.g. A or B).
5. Customize:
   a. Banner: Click “select theme” to choose one of Google’s pictures or upload your own photo.
   b. About: and fill in the title, class description, and room. If you have any general class materials (e.g. a syllabus), you can attach them at the bottom.
   c. Students: Invite your students

Invite Another Instructor
1. In your classroom go to the “About “ section
2. click the “Invite Teacher” button on the left side of the page to add SD and LI as teachers for your class.

Inviting Students
1. To invite students to a class there are two options,
   a. Go to “Students” and click on “Invite.”
   b. Under “Contacts,” check the email address of the students you would like to invite
      and click “Invite Students”
   OR
   c. students can join using the code assigned to your class. This would be best done on the first day of class with all students. Students would need to:
Google Suite - Instructions

i. Navigate to Google Classroom from their email accounts: click on the apps symbol in the top right corner, click “More,” and then “Classroom.”

ii. Select that they are a student.

iii. Click + to join a class and enter the code.

Assignments
Creating an assignment:
1. In the stream, click “Assignment.”
2. Add a title, description (these serve as instructions for students), due date (including time, if desired).
3. Add any necessary attachments.
4. Students will receive an email when you create an assignment with the name, due date, and instructions.
5. Note: Assignments must be out of 1, 20, 50, or 100 points.

Viewing/grading assignments submitted by students:
1. Click on the assignment to bring up student work.
2. Click on the student’s name to see any attachments/notes from the student.
   a. Note: if the student attached a Google Drive file, they will no longer have access to that file until you return it. This ensures they do not edit it after turning it in.
3. Enter the grade and write an optional private comment to the student. Then click “return” to return the assignment to the student. The student will receive emails with the grade and comment.
4. The assignments will be stored in the Google Drive folder that is automatically created when you create an assignment. You can access this by clicking the “Folder” button at the top of the “Student Work” section of the assignment page.
5. You can download a csv file of grades for one or all assignments.

Announcements/Discussion Thread
In addition to creating assignments, you can post announcements and students can comment, which can serve as a discussion thread. To create an announcement:
1. Click on “Stream” in your classroom page.
2. Click “Announcement,” type in your announcement or discussion question, then click “Post.” (You can also save it as a draft for later).
3. Students will receive an email with your announcement. They can easily comment by clicking “Add comment.” You will receive an email when a student comments on your announcement.
4. Note: You can control/limit students’ abilities to post and/or comment by going to “Students” and clicking on “Students can post and comment.” More options will appear.