# How to sponsor a STEM event for girls with 20-minute STEM PROJECTS

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How to sponsor a
STEM event for girls with

# 20-minute STEM PROJECTS

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You can print out this whole guide or just the pages that you need.
Questions? email: denisedelong@comcast.net


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# *How to Sponsor a STEM event with 20-minute projects anyone can do*

This **20 minute STEM projects event** was a joint partnership between our Venice Florida AAUW branch and our local library branches. We, along with the Youth and Young Adult librarians, invited girls ages 9 to 12 to spend a Saturday morning exploring fun STEM projects in **Science, Technology, Engineering and Math**.

Our members created three projects and a librarian created one. We decided that a 2-hour event meant each project should be 20 minutes long and be as active and fun as possible involving STEM. We decorated the room with colorful images and streamers, a STEM felt banner and each project table had colorful signage.

As each girl arrived she was given a color-coded nametag lanyard and foam visor and encouraged to wander around the room. The event began with a brief and warm welcome from the Children's librarian and our Branch President.

Each color group (6 to 7 girls each) started at a different project table together and at each 20-minute changeover went to the next project as a group. All 4 projects were presented simultaneously, which was lively. A timekeeper kept us on schedule and rang a bell when it was time to move to the next project. After 2 projects we took a 20-minute snack break during which girls could decorate their foam visors with colorful cutouts including letters spelling out S-T-E-M (they picked up each STEM letter at the table where they completed that project).

The snack break allowed girls to get some water, chat, and look around the room for what was coming up next. Most girls did not know one another since they came from many different schools including home schooling and from several towns. A book display of children's STEM-themed library books was available for check-out and girls received a take-home "goodie bag" of fun items including glow necklaces and a paperback book.

After the break girls completed 2 more projects and our event was complete. Afterwards some girls re-visited favorite projects and asked questions as their parents arrived to pick them up. We decided early on to have parents and siblings outside the event room rather than inside. Our member volunteers made sure girls didn't leave until their parent was there. We also asked girls to fill out a short evaluation form before leaving.

From our AAUW branch we had volunteers on different levels: 3 project leaders, planning committee members, decorating and snack volunteers and a general call for event-only volunteers to help that morning. The library required our volunteers to register with the library in advance since they would be in contact with children, a sensible precaution which we fulfilled.

# Partnering with Your Library

There are many benefits to partnering with your local library:

- Free use of space to host your event
- It's a familiar location to parents and girls
- Lots of parking available
- Friends of the Library will often support an event by buying supplies
- Girls from many schools and towns nearby become aware and interested
- It's a great place to hold planning meetings
- Online registration through the library system may be available

Our relationship with our local library branch began when we asked to show a display featuring STEM books for girls. From that contact the Youth Librarian asked if our branch would like to participate in a "Books-to-Action" event.

Our board and members gave an enthusiastic response and our event "girls, gadgetry >>and<< galvanizing genius" was off to a great start.

AAUW members volunteered to create (3) 20-minute projects for Science, Engineering and Math and the Young Adult librarian took Technology. Other AAUW members handled snacks, publicity and decorating and email kept us all connected and sharing information.

If your branch is thinking about hosting a STEM event talk your local children and teen librarians about hosting it at the library.
It's a great way to get the STEM message out to girls.

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# 20 minute STEM projects room set-up

You will need (4) standard 6' tables and chairs for your 4 STEM projects plus other tables for snacks, book display, etc. (LEGO project doesn't need chairs).
Projects that need electricity should be located near outlets.

As girls arrive assign them to one of (4) color groups, keeping each group about equal in number. After a brief "welcome and introduction" each group proceeds to their first table and begins that 20 minute project. Timekeeper will announce a 2 minute warning and then the bell/whistle to change to the next table (we chose clock-wise movement).

After first 2 projects are completed take a short snack/bathroom break, then resume the final 2 projects. We asked girls to fill out an Exit Survey at the end of the event and gave each girl a goodie bag with fun STEM items such as a glow bracelet.

Teen volunteers are a great asset as volunteers and role models for younger girls and they can help lead projects. It gives teen girls experience being a leader and libraries often have them available to help.

http://tinyurl.com/VeniceSTEM

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# Science Project: "Zoomy Digital Microscopes"

**Project Goal:** Girls use handheld digital microscopes connected to a laptop computer to examine insects and other natural objects.

**Materials needed:**
**"Zoomy" digital microscopes**
available on Amazon for $40 to$50 each, they come with software for PC and Mac.

AAUW volunteers lent their **laptop computers** to connect the Zoomy. If your library has computers available with a USB port (connection for the Zoomy) and they allow installing the software you could use those instead.

**Insect specimens**. Collect your own or purchase online, we did both. Monarch butterflies and moths were purchased for $7 each at this site online: http://www.butterfliesandthings.com.

**Poster** ideas: Make a poster showing insect parts with their names (girls can look for these parts with their Zoomy's), a poster of important discoveries made using microscopes, poster of women who won Nobel Prizes for their science discoveries.

**Project:**
Show the poster naming insect parts and task girls to find those parts with their specimens. While they are visually exploring and using the equipment the project leader can talk about science careers and other kinds of microscopes scientists use.

Load the Zoomy software in advance to make sure the laptop and Zoomy are working together to ensure success. Teen volunteers are very tech-savvy and valuable role models for younger girls.

**AAUW volunteers with STEM careers wore a sticky tag with their job title that said "ask me about my STEM Career."**

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# Posters for "Zoomy Digital Microscopes"

Posters and Science project by Dr. Marge Ostrom

You can create colorful pages from information found on internet.

Make your poster interesting by using many color images along with scientific information.

20x30 boards can be displayed on easels if available or on chairs, at eye level.

Overall poster size is 20"x30" black foam-board. Individual color pages are attached to color craft paper.

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# Engineering Project: "Lego Balloon Car"

by Denise DeLong

The Lego Balloon Car is a fun project that has just the right difficulty factor for girls to complete in 20 minutes.

**Goal:** Legos are a simple way to introduce girls to Engineering even if they've never thought about it as a potential career. Many libraries have kid's Lego clubs.

Girls get Lego parts to assemble using a schematic (see separate sheet), they can also look at a completed car on the table.
Then they add a balloon and use a straw to blow it up and make it go with air power..
If it wasn't assembled correctly it won't be able to handle the pressure from the balloon and it will blow apart. Encourage creativity and new designs.

While they are working, either as teams of 2 or individually, the project leader talks about what types of engineers there are and what kinds of things they do.
Engineers often work together solving problems and designing new things.
Girls who like taking things apart to see how they work and putting things together might become engineers if they know that career is a possibility.

Have extra cars available to use for replacement parts since it's very easy to misplace small pieces. Practice so that you can put a car together easily yourself.
It's not hard at all to learn and will make you fascinating to younger men (and grandkids).

Although the AAUW Lego Balloon car isn't available to buy in stores parents can find other girl-oriented Lego sets in stores' toy section or online.

Girls age 9-12 completed this project easily in 20 minutes with no adult help. We may add a racetrack on the floor the next time and see whose car goes fastest and farther.

There are two additional separate sheets for AAUW's Lego Balloon Car:

1. **Parts List** so you can order parts to make your own kits

2. **Lego Balloon Car Schematic** showing step-by-step how to assemble the car. Print several of these for your project table for the girls to use.

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engineering project

# Lego Balloon Car

Balloon Car parts list on separate sheet

Completed Balloon Car

When you start at first everything looks mixed up

Organize your parts to make sure you have everything needed

You can start with the wheels or wherever you choose

Lego parts with connector holes are called "Technic".

Add a balloon and you have created an air powered car!

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Lego Balloon Car designed by Andrea Gehringer and Denise DeLong
AAUW Venice branch STEM event-November 17, 2012

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## AAUW Lego Balloon Car Parts List

There is no Lego set you can order for the AAUW Balloon Car because it is an original design. Parts are available on brinklink.com from Lego enthusiasts who sell spare parts but few sellers will have all the parts needed. If you have difficulty getting parts please contact us at the email below. We will try and have sets available for branches hosting a STEM event.

| Parts needed: | part description |
|---|---|
| 1-#6249 | 2x4 Technic brick with pins for wheels |
| 1-#30157 | 2x4 Technic plate with pins for wheels |
| 4- #55981c02 | Wheel and Tire assembly (wheel#55981/tire#30391) |
| 2-#2730 | 1x10 Technic brick |
| 2-#3709b | 2x4 Technic plate |
| 1-#3738 | 2x8 Technic plate |
| 1-#30000 | 2x2 Technic plate with pins |
| 2-#3701 | 1x4 Technic brick |
| 2-#32316 | 1x5 Technic liftarm thick |
| 1-#3706 | #6 Technic axle |
| 2-#6538 | Technic axle joiner |

These parts are not expensive however shipping costs when ordering from different sellers can add $5 to $8 per order over the cost of parts.

The important Technic parts needed are the lift arms (#32316) and the axle (#3706/#6538) to hold the balloon in place. Be creative and see if you can design a balloon car better than this one!

A nice Lego set available Lego Wheels #6118 ($16 Amazon). It has many wheels and several parts needed such as: #6249, #30157, #30000.

AAUW Lego Balloon Car was co-designed by Andrea Gehringer and Denise DeLong
More information? Contact denisedelong@comcast.net
January 2013

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# Math Project: "Chances Are..."

**presented by Dr. Lynn Fox**
adapted from a lesson on http://illuminations.nctm.org/Lessons.aspx

This 20 minute game introduces ideas about decision making and prediction using a set of dice. Girls make a list of all possible combinations when 2 dice are rolled and then they look at the probability of rolling two 1's or a 1 and any other number.

Now that they are thinking about the probablility of either of those two things happening they start the game, which is based on a game called "SKUNK". Their goal is to accumulate points by rolling the dice and not losing points due to rolling any combination with a 1 or double 1's.

1. At the beginning of the game everyone stands up. The dice are rolled and everyone gets to record the sum of the die as their score. If a 1 is rolled on the first roll that round is over and no one gets any points.

2. Before the dice are rolled the second time players can decide if they want to sit down to play it safe and keep their points or stand and continue playing for more points and take the chance that a 1 might be rolled and lose their points.
If 1 is not rolled they get to add that die total to their points.
If a single 1 and any number is rolled they lose all their points for that round.
If double 1's are rolled a standing player loses their points for <u>all rounds</u> (those sitting down keep all their points).

3. If double 1's are rolled as the first roll of a round everyone loses all their points because you cannot choose to sit down on the first roll of a round.

4. Rounds end when either a 1 is rolled or if all players are sitting.

Complete a couple of rounds and then discuss what strategies girls are using.

What is a good strategy? What is a bad strategy?
How many different dice combinations are there?
How many die combinations are "bad" (meaning you lose your score partially or completely)?

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We played our game using oversize lightweight "dice" borrowed from Parks & Rec

# Math Project: "Chances Are..."

## Project Leader Guide

**Give each girl a Players Sheet and have them fill in all the possible die combinations. This illustrates what their chances are of rolling 1+1 or a 1 + any other number.**

DIE II

| DIE I | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |

**Discusssion:**

**How many combinations have a 1 possible? (Answer= 6)**

**How many combinations do NOT have a 1? (Answer=30)**

**How many TOTAL combinations are there? (Answer=36)**

**Are chances HIGH or LOW that you will roll 1+1? (very low- 1 in 36)**

**What is the chance of rolling a 1+any number? (6 in 36 or 1 in 6)**

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# Math Project: "Chances Are..."

## Players Sheet

**Fill in all the possible dice combinations and think about how many combinations have a 1.**
**How many do not have a 1?**
**Are chances HIGH or LOW that you might roll a 1+1?**

Die II

| Die I | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |

| S | C | O | R | E |
|---|---|---|---|---|
| | | | | |

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# Butterfly Snack

## Materials needed:

- small baggies
- pipe cleaner for antennae
- googly eyes (craft store)
- plastic clothes pins
- snack mix

snack created by
Dr. Marge (Karin) Ostrom and Georgie Ann Fedako

# Bookmarks

Design an 8.5x11 template with 8 bookmarks per sheet (2"x5" each).

You can make either a one-sided or two-sided bookmark.

Laminate 8 per sheet and cut apart.
Finished size = 2 3/8"x5".
Use a hole punch at the top, thread a pretty ribbon and tie.

bookmarks created by Pat Weber

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# How to Make Table Signs

Materials needed to make 4:
(4) yardsticks (Home Depot/Lowes)
(4) 4" plastic plant pots (used pots are perfect--
cover bottom holes with tape or foil)
$8 box of plaster (Walmart craft aisle)
Felt to cover pots (leftover from banner)
Acrylic craft paint
Metal coat hanger
String
Spirit level to keep yardstick straight
Glue
(8) color 8.5x11 Xerox (2 per table sign)

1. Paint yardsticks front and back and let dry
2. Suspend yardstick using string/hanger so it hangs in the middle of the pot about 1" from the bottom.
3. Mix 1 to 2 cups plaster. You can add more later to fill higher. Follow directions on the box. Do not pour plaster mix down any drain-- bad things will happen.
4. Use level while plaster hardens to keep yardstick level vertically, you can move the pot to make adjustments while plaster is soft. Add more plaster but leave 2 inches unfilled at the top.
5. After plaster is dry make a felt cover for each pot in matching color. Use an empty pot to trace a pattern on paper. Pots are tapered so cutting a rectangle will not give a neat fit.
6. Glue felt onto pot under the rim. make felt circle for top of plaster in pot.

**Making color signs for top**

1. Design your signs and print 2 copies on index paper
   Do not make them 2-sided because the yardstick needs to be in the middle.
2. Double-stick tape each sign together (leave space for yardstick)
3. Attach sign to yardstick using tape or glue
4. Decorate any additional way you like by theme

We put 2" foam letters in the top of each pot and each girl took one when she completed the project. "S" letters were at the Science table, etc. Girls glued their letters to their visors to spell S-T-E-M.

Note: craft foam or expanding foam could take the place of plaster if you are familiar with using that product

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# How to Make a Felt Banner

project leader Pat Weber

**Materials needed for 24x36 size:**

**1 yard felt for each color (green, blue, orange, purple)**
**Computer to create letter design**
**Sharp scissors**
**Chalk**
**Glue**
**Projector for computer (ask at library)**

Decide what size banner will work for your event and make sure it won't touch heads when hanging. Our panels were each 24" wide by 36" long and hung at 12' height.
Use your computer to design the letters. Project each letter as large as possible onto your felt panel taped to wall and outline in chalk. Cut each letter out. The small words at the bottom were made using a Ellison die-cutting machine available at many schools and libraries. The small letters are 1.75" height.

Glue letters onto the felt background and you are done!

We hung our panels on string using pins but you could make a rod pocket top for yours or use velcro

**this is the design that was projected on felt**

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# STEM book display

## with book list handout

A book display is a very easy way to publicize STEM to girls of all ages. It is also a good way to introduce your AAUW branch to your local library.

First make a list of the girl-oriented STEM books your library has available. Many libraries use "open-shelving" which means that books at other branches are available to be sent to your local library by patron request. You can do this online or at the library. Children and Teen librarians can help you with this also.

A copy of our bibliography is included here. Your library may have some of these books available. Once you have a book call number, 500.82 for example, you can look for other similar books near that number and add them to your list.

If your library doesn't have many STEM books for girls perhaps your AAUW branch could donate some. This could be worthy of a press release which will publicize STEM to a larger audience including parents and teachers.

Our display board was made by making color copies of book covers then laminating the copies. The center poster is an original design you can download and print at your local copy center. Or you can create your own STEM poster.

This book display can be used multiple times: once a year at the library or as part of a STEM event or at a school sponsored event. Possibilities are unlimited.

Look for these pages in this PDF:

- **STEM Book List** (2 pages)
- **STEM 20x30 poster**

Another source for book covers to print is Amazon but the reproduction quality may not be quite as good.

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**Fun Books for S.T.E.M. Girls** **Science-Technology-Engineering-Math**

Books listed here are all available in the Sarasota Library System. If a book is not in your local branch it can be requested online. **FREE.**

| *Title* | *Author* | *Area* | *Library Call #* |
|---|---|---|---|
| **See Jane Win for Girls: A Smart Girls Guide to Success** | Rimm | JUV | 305.235 RIM |
| **Forensic Science Investigator** | Orr | JUV | 363.25023 ORR |
| **Cool Careers for Girls as Environmentalists** | Pasternak | JUV | 363.70023 PAS |
| **I Want to Be an Environmentalist** | Maze | JUV | 363.70023 MAZ |
| **Math Brain Teasers** | Blakely | JUV | 372.7 BLA |
| **The Ultimate Girls Guide to Science: From Backyard to Winning the Nobel Prize** | Hoyt | JUV | 500.82 HOY |
| **The Technology Book for Girls and Other Advanced Beings** | Romanek | JUV | 500.82 ROM |
| **The Sky's The Limit: Stories of Discovery by Women and Girls** | Thimmesh | JUV | 500.82 THI |
| **Extraordinary Women Scientists** | Stille | JUV | 509.22 STI |
| **Women Scientists Who Changed the World** | DiDomenico | JUV | 509.252 DID |
| **Math Doesn't Suck** | McKellar | YA | 510 MCK |
| **You Can Be a Woman Astronomer** | Ghez | JUV | 520.23 GHE |
| **You Can Be a Woman Meteorologist** | Perez | JUV | 551.5023 PER |
| **You Can Be a Woman Marine Biologist** | McAlarary | JUV | 574.92 MCA |
| **Science Warriors** | Collard | JUV | 578.62 COL |
| **Marine Biologist** | Somervill | JUV | 578.77023 |
| **Creep and Flutter** | Arnosky | JUV | 595.7 ARN |
| **How To Raise Monarch Butterflies** | Pasternak | JUV | 595.789 PAS |
| **The Manatee Scientists** | Lourie | JUV | 599.550922 LOU |
| **Girls Think of Everything** | Thimmesh | JUV | 609.2273 THI |
| **Cool Careers For Girls in Health** | Pasternak | JUV | 610.69082 PAS |
| **A Day in the Life of a Doctor** | Adamson | JUV | 610.6952 ADA |

Juv=Juvenile
YA=Young Adult

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| | | | |
|---|---|---|---|
| **A Career as a Physical Therapist** | Harasymiw | YA | 615.82 HAR |
| **You Can Be a Woman Engineer** | Cohen | JUV | 620.0023 COH |
| **I Want to be an Engineer** | Grace | JUV | 620.0023 GRA |
| **Environmental Engineer** | Horn | JUV | 628.023 HOR |
| **Cool Careers for Girls in Air and Space** | Pasternak | JUV | 629.13023 PAS |
| **I Want to Be a Veterinarian** | Maze | JUV | 636.08906952 MAZ |
| **Cool Careers for Girls in Food** | Pasternak | YA | 647.95023 PAS |
| **Video Game Developer** | Jozefowicz | JUV | 791.8151023 JOZ |
| **Amelia to Zora: Twenty Six Women Who Changed the World** | Chin-Lee | JUV | 920.72 CHI |
| **Girls Who Looked Under Rocks** | Atkins | JUV | 925 ATK |
| **Extreme Scientists** | Jackson | JUV | 925 JAC |
| **Extraordinary Women of Medicine** | Stille | JUV | 926.1 STI |
| **Temple Grandin** | Grandin | JUV | Biography |
| **Sally Ride: First American Woman in Space** | Ride | JUV | Biography |

## Some books for parents:

| | | |
|---|---|---|
| **101 Success Secrets for Gifted Children** | Fonseca | 155.455 FON |
| **Reviving Ophelia** | Pipher | 305.235 PIP |
| **Helping Gifted Children Soar** | Strip | 371.9572 STR |
| **Your Child's Strengths: Discover Them, Develop them, Use Them** | Fox | 372.21 FOX |
| **American Women of Science** | Camp | 500.82 CAM |
| **Notable Women Scientists** | Proffitt | 500.82 NOT |
| **Women of Science: Righting the Record** | | 500.82 WOM |
| **A to Z of Women in Science and Math** | Yount | 502.22 YOU |
| **American Women Scientists: 23 Inspiring Biographies** | Reynolds | 509.2273 REY |
| **Feminine Ingenuity:Women and Invention in America** | Macdonald | 609.2273 MAC |

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For a full-size 20"x30" high-quality file of this poster contact denisedelong@comcast.net
You can usually print it locally for $25 or less

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# What is STEM?

## SCIENCE
## TECHNOLOGY
## ENGINEERING
## MATH

## Fastest growing STEM careers

| Career | growth | education required |
|---|---|---|
| Biomedical Engineers | 72% | Bachelor's degree |
| Network systems and data communications analysts | 53% | Bachelor's degree |
| Financial examiners | 41% | Bachelor's degree |
| Medical scientists, except epidemiologists | 40% | Doctoral degree |
| Physician assistants | 39% | Masters degree |
| Biochemists and biophysicists | 37% | Doctoral degree |
| Dental hygienists | 36% | Associate degree |
| Computer software engineers, applications | 34% | Bachelor's degree |

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## *A few more suggestions...*

Our first team of volunteers!

**Volunteers** are the very heart of your STEM event. Even if your Branch is small in number you can create a great event.
It's important to let your members know that they don't have to be experts in Science, Technology, Engineering or Math.
They can help in many ways.

**Contact your neighboring AAUW branch** invite them to attend your event in hopes that they will be inspired to host a similar event in their area.
We invited a nearby branch and they did just that!

**Contact other library branches** ask if they would like to hold a similar event, invite them to attend too. After you've done one event you have everything you need to do it again easily.

**Take lots of photos**.....for publicity releases, for your Branch scrapbook, or make a slideshow to take to schools or show at your meeting.

### Some of our changes and improvements are ~

We invited teen girls to assist our project leaders. These girls may already be volunteers at the local library and younger girls relate to them easily.
It's an opportunity for a teen girl to be in a leadership position and add it to their resume.

Talk to members or local women with careers in STEM fields. They may have good ideas for future 20 minute projects and are wonderful role models.

We decided to have all our volunteers, whether project leaders or helpers be female and we think that worked well.

Smaller snack size, girls just don't eat that much.

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**"girls, gadgetry and galvanizing genius"**
**STEM event**

evaluation created by Shirley Reid

**Evaluation of our day!**

**Please circle your answer**

1. **How did you hear about our STEM Program today?**

a. **Library**
b. **School**
c. **Other ( friend, etc.)**

2. **What was your favorite station?**

a. **Science – examining bugs and insects**
b. **Technology – "wearable light" using batteries and lighted diodes**
c. **Engineering - "Lego Balloon Car"**
d. **Math – "Chances Are"**

3. **Were the directions at each station clear and easy to understand?**

a. **yes**
b. **no**

4. **Would you like to see this program continue and be available for other girls?**

a. **yes**
b. **no**

5. **How would you describe your morning at "girls, gadgetry and galvanizing genius"**

a. **"boring"**
b. **It was "okay"**
c. **Exciting**
d. **Awesome**

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**Thank you. Hope that you had fun!!**

# Publicity for your STEM event

Publicizing your STEM event is extremely important. Start planning your publicity far in advance for success.

1. Call your local newspapers to get the e-mail address of the person who handles this type of news release. Ask how they prefer to get it, meaning do they want a Microsoft Word document or text in an e-mail.
Also ask what their photo submission (jpg) preferences are.

2. When making contact identify yourself as your AAUW branch representative by saying "American Association of University Women" not the letters AAUW. Do the same with STEM, say "Science, Technology, Engineering and Math known as STEM." Let them know your event is free and that AAUW is a non-profit organization advancing education for girls and women.

3. Make your press release ***dynamic*** by using quotes from people participating, describe what STEM projects will be offered and include a quote from your Branch president about AAUW's commitment and support of STEM for girls because it is lagging.

*Many more people will see publicity about your STEM event than will attend.*
*It's a great opportunity to get your message to more girls and their parents!*

Some editors may rewrite your release after calling contacts that you include at the bottom of your press release. Include names, titles, e-mail addresses and phone numbers of AAUW contacts and/or STEM role models that are participating. Be ready with simple talking points about STEM and why your AAUW Branch is sponsoring this event.

4. Attach a sharp well-exposed photo to your publicity release, something related to STEM. If you have a girl in the photograph make sure you have a signed release from a parent or the newspaper can't use the photo.

5. Take lots of photographs at the event and send another news release telling all about it, how many girls attended, with quotes from parents or teachers. This is another great opportunity to publicize STEM and your AAUW branch.

# Getting your STEM event publicized

Publicity doesn't just "happen", you need to contact your local paper, write interesting news releases and send good photographs.

Here are some clippings from several STEM events our Venice AAUW Branch sponsored .

The article (right) was written and photographed by a newspaper photojournalist who interviewed participants. It provided great publicity for STEM as well as our AAUW Branch.

## Girls get 'steamed' up on learning

PHOTO COURTESY OF AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

**American Association of University Women volunteer Kay Novotny lent her laptop computer and a Zoomy electronic microscope so girls could explore the Science project and examine macro images of insects including butterflies, moths and dragonflies at a STEAM (Science, Technology, Engineering, Art and Math) project at Venice Public Library Nov. 2 for 22 girls ages 9-12.**

This publicity was the result of sending a news release **after the event** along with several photos and details about the STEM projects.

## COMMUNITY CENTRAL

### Program urges girls to study science

By ALISON POSNER
Correspondent

**Lucy Zahed** wants to be a veterinarian.

She is already on her way. At home, she cares for a hamster, a lizard, two bunnies, two chickens, a dog, two cats and four frogs.

"That's what she loves," her mother, **Barri Zahed**, said. "Anything I can do to help her follow her dreams."

On Nov. 17, Lucy explored her career options with other girls ages 9 to 12 at a STEM, or science, technology, engineering and math, program at the Jacaranda Library in Venice.

The library partnered with the American Association of University Women to present "Girls, Gadgetry and Galvanized Genius."

The room was divided into the four STEM categories. Each group was assigned four projects that corresponded to one of the fields.

"We are losing girls in these areas of college degrees, so we are trying to introduce them at an earlier age," AAUW member **Denise DeLong** said. "We want them to know that anything is possible."

A fun project at the science table included pairing up and looking under a magnifying glass to view and identify insects. Using tweezers, groups sorted the insects and counted the different types of species.

At the engineering table, children also worked in pairs to complete a Lego project. They were challenged to use their skills and creativity to build an air-powered car with a set number of Lego pieces.

With a mission of "advancing equity for women and girls through advocacy, education, philanthropy and research," **Shirley Reid**, president of the Venice branch of AAUW, told the girls about the importance of preparing themselves for their future careers.

"You do have choices," she said. "You are our future and our future is bright."

DeLong added, "There just might be some future Nobel Laureates. I'd love to see that."

Students work on math problems as part of the projects at a STEM — science, technology, engineering and math — program on Nov. 17. The Venice branch of the American Association of University Women offered the "Girls, Gadgetry and Galvanized Genius" event at Jacaranda Library. Shown, from left, Jenna Tymczyszyn, Allison Gaccho, Hannah King and Gina Marie. PHOTOS BY ALISON POSNER

Casey Reckahn, 10, counts species of bugs during "Girls, Gadgetry and Galvanized Genius" at Jacaranda Library.

**SPOTTED:** To see a Herald-Tribune gallery of more photos, go to tinyurl.com/iburgt

Brooke Picazio, 9, rolls jumbo dice as she as her group figure out

Madison Deforge, left, and Savannah James team up to create an air-powered Lego car.

Community News Editors, EARLE KIMEL, 486-3066; CHRISTI WONACK, 486-3082; community@theeaglebuna.com

This news release was sent **2 weeks in advance** of our STEM event.

It resulted in 100% registration and was a great way to inform the general public about STEM.

Photographs were also sent but newspapers don't always have space for everything you submit.

WEEKEND EDITION • OCTOBER 26, 2013 — SUN NEWSPAPERS 5B

## Girls STEM event planned for Nov. 2

### Registration is open to girls ages 9-12

FROM AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

About 30 girls will be able to explore five fun 20-minute projects at Venice Public Library Nov. 2 from 10 a.m. to 12:30 p.m.

The projects will cover the fields of science, technology, engineering, art and math (S.T.E.A.M.) The event is normally called "STEM," but adding arts to the mix changed the acronym. This event is free and open to girls ages 9-12 who register with the library in advance.

Four project tables and the computer lab will be filled with future scientists, designers and perhaps a future Nobel Prize winner. Venice librarians Pam Johnson and Pat Maurer are partnering with American Association of University Women (AAUW) Venice Branch volunteers to offer the one-day S.T.E.A.M. event to girls.

Adding "A" for Art to turn STEM into STEAM was Maurer's idea. She will lead the "Golden Ratio" art project.

AAUW volunteers will bring unique projects, such as "Zoomy" electronic microscopes which hook up to laptop computers and allow girls to see much closer views of natural subjects, such as butterflies and other insects.

The engineering project entails a Lego balloon-powered car that starts out as Lego pieces. Girls build a car in under 20 minutes and race them to see whose car goes farthest.

A fun math game is played with big dice, and girls learn how probability can help them make intelligent decisions instead of guessing.

Librarian Pam Johnson is leading a new technology project in the computer lab where girls create a computer-animated flip-book. She and other librarians are going in on their day off to sponsor the event.

"We just think it's so important to have this fun event for girls at our library and don't mind giving up our Saturday morning to do it," Johnson said. "We're pretty excited about having it and many parents and girls are really interested in it. The Friends of the Venice Library provided full funding for our refreshments and prizes."

Some AAUW volunteers who had STEM careers include Dr. Margo Ostrom, former research scientist who holds patents in her field of nutrition. Dr. Lynn Fox, math project lead, taught gifted children. Other volunteers were physical therapists, clinical nurses and teachers.

AAUW President Kathy Black said, "Our Venice branch believes in the importance of encouraging more girls to enter these important and under-represented fields. We are so proud to have been able to award many scholarships in the STEM areas for local women to return to college to complete their degrees over the past several years."

To register online, go to http://fl.evanced.info/sclib/lib/eventcalendar.asp. Girls do not need to be Venice residents to attend.

For more information, call the librarians at 941-861-1348.

http://tinyurl.com/VeniceSTEM

AAUW http://venice-fl.aauw.net
Venice Florida Branch
American Association of University Women