

Made  Code

_PARTY KIT

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THANKS FOR HOSTING A MADE WITH CODE PARTY

Welcome to your **Made with Code Party Pack**! This do-it-yourself guide includes everything you need to introduce coding to girls in a fun, accessible and social way — advice and agendas to get your party organized, inspiring stories of girls and women who are already changing the world with code, and five engaging activities to get them making with code. But rest assured, **no computer science experience is necessary to host a party.**

The goal of a Made with Code party is to **spike girls' curiosity and encourage them to explore the countless possibilities of what they can do with code.** Though code is at the center of our lives today, young women are not equally represented in the creation of these technologies. We started Made with Code to help change that. Together, we can help ensure that more girls become the creators, and not just the consumers, of our collective digital future.

As parents, teachers, coaches, advisors and role models, we all have a huge part to play

in helping to make coding relevant and exciting for girls. In fact, a nationwide study we published earlier this year found that encouragement from adults and peers is the most significant contributor to a girl's decision to pursue computer science — even more than her parents' occupation or household income. Given that girls are half as likely as boys to receive that encouragement, your support is all the more important.

Thank you for taking this first step to show girls that the things they love are Made with Code.



...spike girls' curiosity and encourage them to explore the countless possibilities of what they can do with code."

PARTY PLANNING LOGISTICS



GATHERING A GROUP FOR YOUR PARTY:

- Made with Code parties can be held for groups of all sizes, whether you're hosting for your daughter and four of her closest friends, for 10 girls from the basketball team you coach, or for all 20 girls in the school band.
- Encourage each girl who joins your party to bring along a friend. Girls who come in pairs will be more likely to get other girls involved.
- Consider inviting a local female engineer or Computer Science (CS) student to speak about her interest and career in computing.
- Customize the email template below to invite girls to join the party:



You're invited to a Made with Code Party!

Hi (name),

You're invited to our first Made with Code party on (date) at (location)!

Code touches every part of our world — and no matter what you want to be when you grow up, code and Computer Science skills can help you get there. Join us for a fun intro on how to get started using code to build the world you want to live in:

- Hear how women coders around the world are creating a better future
- Discover how code and CS skills can help you pursue your interests
- Write your first few lines of code!

We hope to see you (date)!

MATERIALS

- 1 Internet-enabled computers:** There are a few ways that you can host a successful party, even if you don't have a device for every girl:
 - Encourage girls to **work in pairs**. This will require fewer computers and encourages students to collaborate.
 - **Use tablets**. All of the Made with Code activities can be completed on a tablet device.
 - Reach out to your **local library, community center or universities** to see if you can use their space for your party.
 - Ask volunteers to provide computers or tablets for the party.
- 2 [Optional] A projector** to show videos to your party-goers on a big screen. No problem if a projector isn't available — you can all simply watch the videos together on a shared computer screen.
- 3 Brain food.** Fuel their minds and keep energy up with healthy snacks.

SUGGESTED PARTY AGENDA

In this section, we'll go over each agenda item so you have a successful event. We recommend scheduling at **least 2 hours** for your party to allow girls to engage deeply with the coding projects. Here's a rough outline of what your agenda might look like. Feel free to mix and match the activities that you think will resonate best with your girls.

Intros and Ice Breakers	20 min.
Discover what coding is and what girls can do with it	10 min.
Make something you love with code	50 min.
Take a break!	10 min.
What else can girls make with code? Share stories of amazing girls and women already changing the the world with code.	20 min
What's next: how and where to keep learning	10 min.

A few tips to ensure that girls get the most out of the session:

- **Build frequent breaks into your agenda.** Brain-breaks keep the energy of the room high and help build a sense of community among the girls, which might inspire them to continue to explore coding.
- **Provide specific feedback and encouragement.** Motivate your girls by providing positive encouragement along the way. When you're working on the coding challenges, encourage girls to share their successes and help their peers out with any roadblocks.
- **Encourage girls to share their experience on social media.** Once the girls create their first code projects, they can share with friends by uploading a photo or link to their creation. Make each project more discoverable by tagging each post with #madewithcode.

NOTES

INTROS AND ICE BREAKERS



Start things off with a bit of visual inspiration by showing girls the [Made with Code Film](#).

ICE BREAKERS:

Whether your girls are already close friends or meeting for the first time, starting off with an ice breaker will bring the group closer together and help get the creative juices flowing.

- 1 **Intro your friend:** Break the group up into pairs. Ask the girls to take a few minutes to gather at least three fun facts about each other. After a few minutes, bring everyone back together and ask each girl to introduce their partner to the group.
- 2 **Hot potato:** Ask the girls to stand up and make a circle around the room. Pass a real or imaginary ball around the room, asking each girl to introduce herself and mention her favorite thing that is Made with Code.
- 3 **Two truths and a lie:** Ask each girl to write three things about themselves that the group might not already know. Two of them are true, and one is not. Take turns reading out the three facts and guessing which one is false.
- 4 **The Question web:** You'll need a spool of string or a crepe paper streamer for this game. Gather your girls around in a circle. Hold onto the end of the string and throw the spool to one of the girls in the circle. Ask her to answer one of the questions from the list below and then throw the string or streamer to another member of the group. Eventually, this will create a nice web between all of your party goers.
 - ✓ If you could go anywhere in the world, where would you go?
 - ✓ What did you want to be when you were little? And what do you think you want to be now?
 - ✓ If you could have a conversation with anyone in the world, who would it be and why?
 - ✓ Does your name have any special meaning? Or were you named after anyone?
 - ✓ What's the best thing that's happened to you this week?
 - ✓ What book or movie have you seen or read that you would recommend?

WHAT IS CODING AND WHAT CAN GIRLS DO WITH IT?

So what can a girl do with code? Literally anything — she might go on to be a programmer, doctor, anthropologist, designer, president, pastry chef or anything in between. Computing skills can build the foundational problem solving, creativity and communication skills that will help her succeed and stay competitive in whatever she chooses to do. There really is nothing she can't do with code as a tool in her belt.

A FEW TALKING POINTS TO KICK THINGS OFF:

- Learning how to code will help you to become a creator, more than just a consumer, of the technology that we use every day.
- If girls don't participate in technical innovation, your ideas, concerns and designs won't be included when we make the cities, cars, clothing, medicine, communications and government of tomorrow. It's a big deal that girls be a part of our collective digital future.
- **Coding can help you make a difference:** Computing skills can allow you to work on creative solutions to some of the world's most complex and challenging problems. You can build products and solutions to save lives, improve the environment, solve health problems or keep the world connected.
- **Coding is team oriented:** Computer scientists work as part of collaborative teams that require many different kinds of skills.
- **Coding is flexible:** Computing skills can allow you to work in any industry, and in any part of the country. Many IT careers offer flexible hours or the option to telecommute, making it easy to blend your career with your personal life.
- **Coding can provide great quality of life:** CS is among the fastest-growing and highest-paying fields in the US, earning the highest entry-level salary of any bachelor's degree.
- **Computing jobs aren't all about coding:** Coding is an important skill for a computing job but these jobs are about much more than coding. They are about working with others to design and build new tools for people to use to make their lives better.

HOLIDAY LIGHTS + SNOWFLAKE PARTY KIT

It's always fun to create something special for the holidays. Let your girls experience coding for the first time with 2 featured projects: Holiday Lights and Snow Flake.

HOLIDAY LIGHTS

This season, your girls can light up the national holiday trees in Washington D.C. through code. They can customize and design their tree online, then bring it to life on one of the 56 holiday trees just outside the White House's backyard.

SNOWFLAKE

Let your girls code a colorful and unique snowflake for the holidays. They will be able to manipulate patterns and colors to create the perfect winter graphic.



MAKE SOMETHING WITH CODE

Now that you've got girls interested, it's time for them to try their hand at code. We've developed five creative coding exercises that you can choose from below. Exercises are self-paced and require no prep time. Just visit www.madewithcode.com to get started:





CODING ACTIVITIES	<u>Kaleidoscope:</u> Girls can code colorful, symmetric, reflective patterns using a selfie or an image. Using the Blockly programming language, girls will create a kaleidoscope animation out of different images.
<u>Accessorizer:</u> Girls can choose a photo or snap their own, then customize it with accessories and other visual elements. They'll learn how to create custom shapes by defining different pixel coordinates.	<u>Avatar:</u> The girls will learn to code different shapes and colors to arrange geometric patterns and create their own custom avatars.
<u>GIF:</u> In this project, girls will learn how to use a series of frames to create an animated GIF. They'll specify the images and order of appearance, and end up with an awesome GIF ready to post online.	<u>Beats:</u> This project teaches the girls how to use different lengths and types of sound to create their own personal beat. By selecting the pace and individual instruments they want to play at each point in a measure, they'll create a custom beat track.

WHAT ELSE CAN GIRLS MAKE WITH CODE?

By now, we hope that your girls are excited to learn more about what they can do with code!

Computing skills can help girls pursue their passions, no matter what they are. We've listed below some examples of how coding relates to a variety of fields that the girls at your party might be interested in. Pick and choose a couple of examples and videos of inspiring girls and women who are changing the world with code to share at your party.

Sources: DotDiva, Makers at Google

TOPIC	CODE CAN HELP YOU MAKE
Nonprofit & Humanitarian work 	<p>Code can help you make:</p> <ul style="list-style-type: none">○ Secure databases to record human rights abuses.○ Online petition software that can instantly collect signatures about urgent causes.○ Location devices to keep relief workers and separated families connected during disasters.○ Microfinance websites that help fight poverty by providing loans to low-income people in developing countries. <p> Watch these mentor and maker stories:</p> <p>Erica Kochi from Unicef develops technologies to help save lives and improve the health of millions of people.</p> <p>The EPA Chica Squad, four girls from East Palo Alto, developed the Tag It app during the Technovation Challenge to help beautify their community by alerting the city about graffiti, garbage or vandalism.</p>
Medicine and Disabilities 	<p>Code can help you make:</p> <ul style="list-style-type: none">○ Camera phone microscopes that can diagnose diseases in remote areas without access to hospitals.○ Software to help deaf people.○ Smartphone-based fetal monitors for rural areas.○ GPS systems for people who are blind. <p> Watch this maker story:</p> <p>At the age of 17, Brittany Wenger developed an app to make the diagnosis of breast cancer less painful and more accurate.</p>

Robotics and Artificial Intelligence



Code can help you make:

- Security systems with face, speech and handwriting recognition.
- Robots that can perform brain surgery while a patient is in an MRI machine.



Watch this maker story: [Tessa Fitzgerald](#) is a 16 year old PhD candidate pursuing her passions for Artificial Intelligence and Cognitive Science to better understand how humans and computers overlap.

Environment



Code can help you make:

- Wireless sensors that can track endangered animals.
- More accurate local weather forecasts.
- Hurricane tracking technology to help communities better prepare for storms.
- New renewable energy technologies.

Communications & Social Media



Code can help you make:

- Mobile apps that help people meet up with friends and explore a new city.
- Communications devices that help speech-impaired stroke patients carry on conversations.
- Technology to bring affordable Internet access to disadvantaged communities.

Journalism



Code can help you make:

- Mobile devices that let reporters research and fact-check stories as they write them.
- Real-time virtual news feeds.
- Recording devices that pick up an interviewee's voice and provide a highly accurate transcription.

Film, Animation & Computer Graphics



Code can help you make:

- Animated films at making your favorite movies.
- Digital set design programs that let you add virtual actors to the set and visualize how all the elements interact.
- Internet-enabled TV that lets you watch your favorite show, talk to your friends, browse web sites and update social media at the same time.



Watch this mentor story:

Danielle Feinberg, Director of Photography and Lighting at Pixar, worked on animation for films including Wall-e, Finding Nemo, and Brave.

Performing Arts, Music & Dance



Code can help you make:

- Cloud computing storage platforms for an entire music collection.
- Online guitar instructors that let you know when you're off tune or beat.



Watch these mentor stories:

Ebony "Wondagurl" Oshunrinde recorded beats for Jay Z's "Crown" and has built her brand using social media.

Miral Kotb merged her passions for computer science and dance to develop iLuminate, a dance company that uses wearable light technology to create exhilarating performances.

Fashion








Code can help you make:

- Shopping apps that help you choose styles, then recommend matching accessories and where to buy them.
- Home design programs that record a room's parameters and help users redesign.
- 3-D fashion design software that helps you visualize your designs.






Watch the mentor and maker stories:

Maddy Maxee has merged her interests in fashion and coding to understand how technology is creating a new era in fashion design.

<p>Gaming</p> 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ The next hit game for consoles or PCs ○ Computer games designed to address the social and educational needs of autistic children. ○ Software that develops music for video games. <p> Watch these mentor and maker stories:</p> <p><u>Robin Hunicke</u> is a video game designer and co-founder of Funomena who believes that games can have a positive impact on the world.</p>
<p>Art, Design & Craft</p> 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Interactive digital art, like the projects featured on DevArt. ○ Databases to preserve images of fragile paintings and sculpture. ○ Virtual tours of an ancient Greek temple. ○ Smartphone apps for art museum visitors. <p> Watch these mentor stories:</p> <p><u>Limor Fried</u> is an electrical engineer and hobbyist who developed Adafruit, a company offering tools, equipment and electronics for makers and designers of all ages and skill levels.</p> <p><u>Ayah Bdeir</u> founded Little Bits, an open source electronics company that strives to break down the barriers between the products we use and the things we make, so that everyone can become an inventor.</p>
<p>Engineering</p> 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Software that can predict the durability of bridges during earthquakes. ○ “Smart” wheelchairs with GPS navigators for severely handicapped people. ○ Solar design software that analyzes which type of solar panels would work best in a green building.

Psychology 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Phone apps that helps people deal with stress and reinforce basic cognitive therapy techniques. ○ Brain imaging software that helps analyze psychological disorders.
Politics, Poverty and Social Justice 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Apps that collect and organize articles and videos about the political issues you care about. ○ Mobile tools allowing urban dwellers to report potholes, trash and other local annoyances directly to city hall. ○ Virtual political communities that mobilize people to meet and organize in real life. ○ Programs that identify available shelter space for the homeless within a city.
Law 	<p>Code can help you make:.</p> <ul style="list-style-type: none"> ○ Web portals with a databases of pro bono lawyers and other legal services for low-income people. ○ Mobile apps that put all state and federal laws at a lawyer's fingertips. ○ Sites that help people quickly and affordably prepare, file and serve a claim in small claims court.
Literature 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ E-reader devices. ○ Children's e-books with animated illustrations. ○ Virtual bookstores that let users download content to any smartphone.
Sports 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Monitors that provide feedback on an athlete's technique to help them make small physical adjustments to perform better. ○ Marathon apps that provide customizable training programs. ○ Computer vision systems that more accurately detect when a tennis ball falls out of bounds.

Advertising 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Interactive and engaging banner advertising formats. ○ Tools to measure and optimize the performance of a digital advertising campaign.
Education 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ Interactive whiteboard technology. ○ Software for medical schools that use 3-D virtual patients. ○ Digital research labs that help scientists in different countries collaborate on pressing global issues.
Forensics & Detective Work 	<p>Code can help you make:</p> <ul style="list-style-type: none"> ○ DNA scanners that can instantly sift through crime suspect files. ○ Mobile forensics labs for on-the-spot analysis of evidence at crime scenes. ○ New ways to fight cybercrime and identity theft.

HOW AND WHERE TO KEEP LEARNING

Check out these resources for more coding opportunities:

- ☐ Try more coding projects at www.madewithcode.com!
- ☐ Share photos of your event on social media and let us know how it went! #madewithcode
- ☐ Our [directory](#) of after school clubs, courses, summer camps and more in your area
- ☐ [Online and offline activities](#) from our educational partners, including Scratch, Sew Electric and more.
- ☐ The [Made with Code Google+ Community](#), which lets girls stay up to date on the latest from Made with Code and get to know other girl coders.
- ☐ [Follow us on social media](#) #madewithcode

NOTES

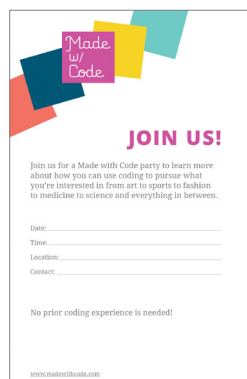
YOUR PARTY PIECES!

You'll find some wonderful party pieces for the event. Click on the name to find in the PDF.

- ☐ **Name tag:** Use this Avery Template to print: U-0119-01_0805-03_en
- ☐ **Flyer:** 4.8" x 7.5", 2-up on a letter page
- ☐ **Poster:** 8.5" x 11" 3 versions, 11" x 17" 3 versions
- ☐ **Certificate of Completion:** 8.5" x 11"



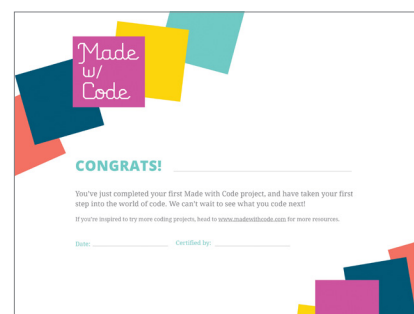
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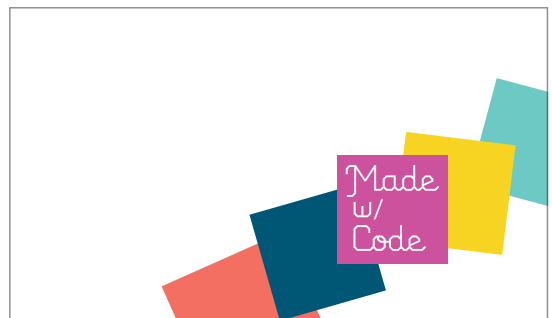
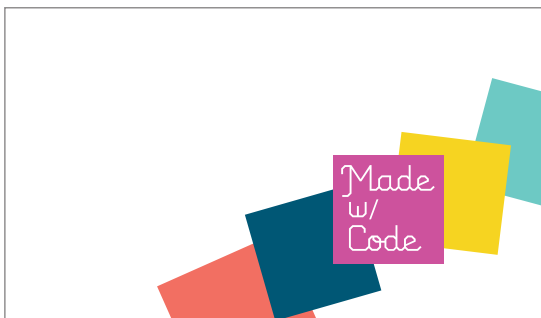
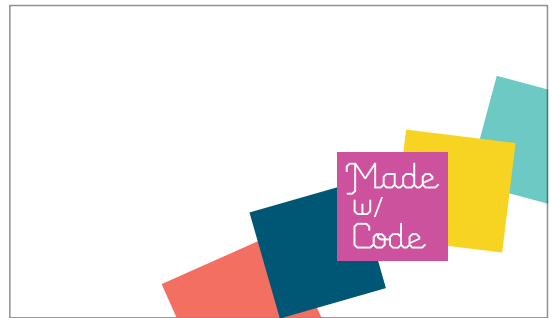
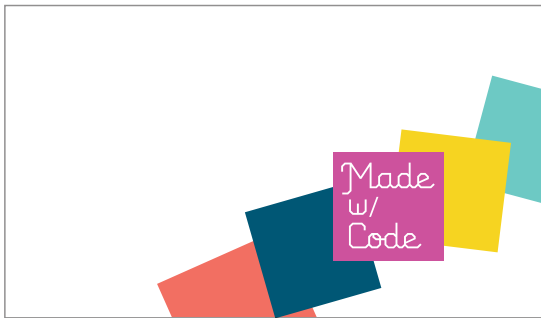
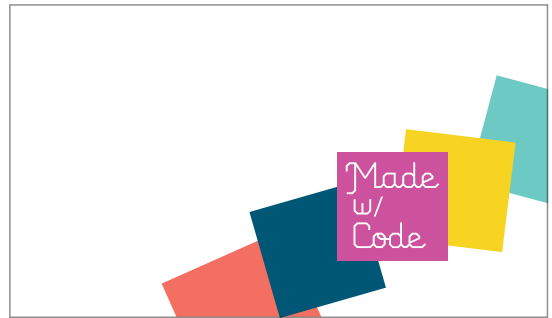
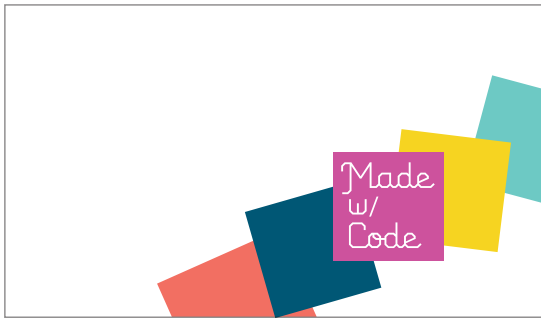
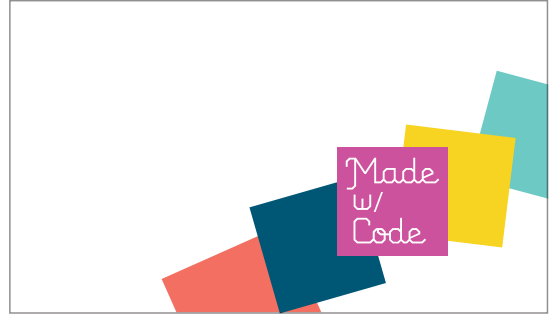
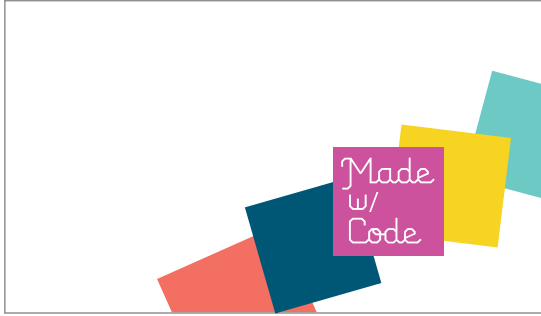
Flyer



Poster



Certificate of Completion





Made
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Code

JOIN US!

Join us for a Made with Code party to learn more about how you can use coding to pursue what you're interested in from art to sports to fashion to medicine to science and everything in between.

Date: _____

Time: _____

Location: _____

Contact: _____

No prior coding experience is needed!

www.madewithcode.com



Made
w/
Code

JOIN US!

Join us for a Made with Code party to learn more about how you can use coding to pursue what you're interested in from art to sports to fashion to medicine to science and everything in between.

Date: _____

Time: _____

Location: _____

Contact: _____

No prior coding experience is needed!

www.madewithcode.com



Made
w/
Code

CONGRATS!

You've just completed your first Made with Code project, and have taken your first step into the world of code. We can't wait to see what you code next!

If you're inspired to try more coding projects, head to www.madewithcode.com for more resources.

Date: _____ Certified by: _____





things you love are

Made  Code

Code the world you want to see.

madewithcode.com

Google



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HEALED WITH CODE

19-year-old Brittany Wenger is using code to detect breast cancer cells in less invasive ways with higher accuracy.



What will you make with code?

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MIXED WITH CODE

17-year-old Ebony
“Wondagurl” Oshunrinde uses
code to create her very own
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