ON BEING BRAVE, NOT PERFECT

“We have to teach [girls] to be brave in schools and early in their careers, when it has the most potential to impact their lives and the lives of others, and we have to show them that they will be loved and accepted not for being perfect but for being courageous.”

-Reshma Saujani

ENGAGING YOUTH IN TECHNOLOGY

BUILD MORE THAN CODE: SISTERHOOD ACTIVITIES

We definitely want girls to learn the basics of computer science in our Clubs. However, we also want them to leave with a strong, meaningful peer group and the strengths they’ll need to continue studying computer science. Leverage these activities to make time for girls to reflect, play, and grow together, because that work is just as important as the programs they might write.

SAMPLE ACTIVITIES:

The Shakedown:

Type: Active Energizer

Description: This activity is an opportunity to shake out jitters and help focus energy.

Instructions: Have girls stand in a circle. Then, tell them to follow your lead.

1. Hold out your right hand. Quickly shake it and count down from 6 on each shake. Repeat this with your left hand.
2. Hold out your right leg. Quickly shake it and count down from 6 on each shake. Repeat this with your left leg.
3. Continue to shake and count, decreasing by one count each round until you get down to one.
Blind Drawings:

**Type:** Communication Builder  

**Description:** This activity is an opportunity for girls to collaborate and build communication skills

**Instructions:** Have girls pair up and designate one as the drawer and one as the communicator.

1. Find a partner, and sit back to back.
2. One person will be given a picture and will give instructions to their partner to help their partner draw the picture. 
   a. Don’t give away what your picture is! For example, if your picture is a puppy chasing a ball, don’t say “draw a puppy chasing a ball”.
3. The other person will have up to five minutes to try to draw the image using only the directions.
4. Compare the drawing with the original picture.
5. Switch roles and repeat!

**Notes:**

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**WOMEN IN TECH SPOTLIGHTS**

“You can’t be what you can’t see.”

Through our research, we know that one of the primary challenges that girls face in pursuing computer science as a career is a lack of female role models. Girls are likely to grow up to be innovators only if they have access to female innovators, underscoring the importance of role models and self-image.

**SAMPLE WOMEN IN TECH LESSON PLAN:**

Role models come in all shapes and sizes. In fact, Dr. Ayanna Howard's first role model wasn't even human! **Bionic Woman**, a robotic superheroine, inspired Dr. Howard’s passion for building robots and engineering at an early age.

- **Professor of bioengineering**
- **Co-founder and Chief Technology Officer** of the educational robotics company Zyrobotics
- **Developed robots** that are learning to inhabit Mars with NASA
BRAVERY: Dr. Howard showed bravery when she spoke up in an uncomfortable situation at work. What would you say to yourself in that moment?

RESILIENCE: Imagine you are working with Dr. Howard on one of her robots. What might go wrong? How might you stay positive and work through the problem?

CREATIVITY: Which industries use robots today? What are some problems that robots can be used to solve?

PURPOSE: What inspires Dr. Howard to make innovations in robotics? Who or what inspires you?

Notes:

GIRLS WHO CODE CURRICULUM:

6th-12th Grade Curriculum Notes:

3rd-5th Grade Curriculum Notes:
DESIGN THINKING: BUILDING YOUR PROGRAM

Reflection:

What does my community STEM landscape look like?

What resources can I leverage?

Reframe the problem:

What do I hope to accomplish?

What are my goals for a Girls Who Code Club?

Design the solution:
What can my Girls Who Code Club look like in my community to complement my work?

**Action Steps:**

What 3 steps can I take once I get back to my community?

**STEP ONE:**

**STEP TWO:**

**STEP THREE:**

**Barriers:**

What are some barriers and how can I address them?

**QUESTIONS?**

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