



WE RUN THIS: GIRLS IN CHARGE

In this apprenticeship, girls will “talk back” to stereotypes and gender-based limitations by developing innovative ideas to make products that will empower girls in response to design challenges that they have identified. Students will analyze case studies of innovative female designers who are tackling these challenges head on. They will follow in their footsteps by experimenting with the design process and ultimately building, testing, and presenting a prototype of an innovative product at the WOW!, a designer’s showcase. In the process, they will learn to think like designers as well as learn to empower and support each other as they address issues that are most important to them as young women.

Unit Standards and Objectives 21st Century Skill: Innovation

Standard #1: Citizen Schools students will generate an idea or product that suits a practical or artistic purpose.

Lesson Objectives: SWBAT...

- generate ideas of innovations that would suit a specific user’s needs.
- explain the importance of understanding the end user’s needs, wants, and preferences when designing a product for that user.
- use bodystorming to fully empathize with the end user’s standpoint.
- brainstorm a list of at least 20 possible innovations to respond to the problem statement: “How can we protect girls and women from street harassment?”
- select the best problem statement to focus on for their WOW! Project based on which is most feasible.
- generate a list of potential innovations to address their WOW! problem statement.
- build models of three ideas to assess the advantages, limitations, and feasibility of each idea from a practical standpoint.
- state and use the advantages, limitations, and feasibility to select the best idea to create in response to their problem statement.
- identify advantages and limitations of their idea from an end-user standpoint.

Standard #2: Citizen Schools students will use a design process to create ideas or products.

Lesson Objectives: SWBAT...

- use Building to Think as a step in the design process.
- describe a sound, multi-step process for realizing their idea that addresses their problem statement.
- identify tools and materials needed to realize their idea that addresses their problem statement.
- create a plan to field test their idea and collect data to improve their idea.
- conduct a field test collecting data to refine and revise their idea.
- refine and revise their idea based on feedback, data, and reflection.

Standard #3: Citizen Schools students will realize a product or idea that suits a given purpose.

Lesson Objectives: SWBAT...

- describe their WOW! design challenge and what they will learn in this apprenticeship.
- create a draft prototype of their idea addressing their problem statement.
- create a final prototype of their idea addressing their problem statement.
- build a display to showcase and share their idea for the WOW!
- write a designer’s statement for their final prototype.
- practice verbally explaining and sharing their idea and prototype.

Standard #4: Students will analyze the effects of gender inequality on groups and individuals.

Lesson Objectives: SWBAT...

- identify issues girls their age face in their community.
- write problem statements that are gender-related, specific, and could be feasibly solved by innovation.
- explore the stereotype that girls don’t like math and science as much as boys do.
- identify ways that stereotypes about genders impacts them and other girls.
- describe how people use symbols to draw boundaries between people based on gender.
- describe how beliefs about gender contribute to the development of a sense of self or identity.
- discuss the effects and consequences of gender stereotypes in street harassment and treatment of girls in their communities.
- evaluate the impact of gender inequality and stereotypes on girls’ nutrition and eating habits.



- identify the effect of lifting each other up with praise.
- discuss how beauty standards impact girls' self-esteem.
- demonstrate mastery on sociology of gender standard.

Sociology and Gender standards were adapted from the [National Council on Social Studies' College, Career, and Civic Life \(C3\) Framework for Social Studies State Standards](#).

Essential Questions

- How do gender norms and stereotypes impact girls in our community?
- How can innovative thinking help girls be more safe, successful and happy?
- What distinguishes a great idea from a regular one?
- What does it take to turn a great idea into reality?

Performance Task Assessment (WOW!)

The Performance Task Assessment or WOW! Is a project for a design challenge. At the end, we'll have a design showcase to share our work with the people we designed it for. Our designs will make people's lives better. They will solve a problem, or meets a need. The challenge will be to create a product that will help young women be happier, safer, or more successful. It could be a new building, a toy, a vehicle, a special piece of clothing, a website, an event--almost anything you can imagine, but it will be an innovative, brand-new idea. Students will plan what it will look like, and build a prototype or model of the product.

Goal: Present a prototype of an innovative product that will help girls overcome gender limitations or stereotypes. Describe your design challenge and process.

Role: Designer

Audience: Girls of all ages, as well as their families.

Situation: Design Showcase

Product: Complete product* with display (poster or tri-fold board) that outlines the process of thinking, building, testing, and improving that went into the product.

Standards: End user feedback (survey); formative and summative rubrics for CT/TL to complete (attached)

*We use "product" in the broadest possible sense: it could be a toy, artistic endeavor, club or organization, clothing or jewelry, social media campaign, a proposal about school policy, or nearly anything students could dream up and create within the ten-week timeframe using the materials provided. It may be a useable product, a prototype, or a proposal; whatever it is, it should address a specific design challenge and be polished and professional.

Students will be assessed on Citizen Schools' 21st Century Skill [Innovation Rubric](#).



Lesson Plans At-A-Glance

Lesson Plans are available [here](#).

Week	Lesson Objectives	Agenda	Outcomes & Work Products
1	<ul style="list-style-type: none"> ● SWBAT describe their WOW! design challenge and what they will learn in this apprenticeship. ● SWBAT identify issues girls their age face in their community. ● SWBAT write problem statements that are gender-related, specific, and could be feasibly solved by innovation. 	<ul style="list-style-type: none"> ● Hook: Who are We? ● Intro to New Material: Design Challenge ● Activity 1: Peer Counselor ● Activity 2: Defining your Challenge: Problem Statements ● Activity 3: Real talk circle: Safe Space ● Assessment: Problem statements 	<ul style="list-style-type: none"> ● Generate possible problems to solve.
2	<ul style="list-style-type: none"> ● SWBAT generate ideas of innovations that would suit a specific user's needs. ● SWBAT explore the stereotype that girls don't like math and science as much as boys do. ● SWBAT identify ways that stereotypes about genders impacts them and other girls. ● SWBAT explain the importance of understanding the end user's needs, wants, and preferences when designing a product for that user. 	<ul style="list-style-type: none"> ● Hook: Goldie Blox ● Activity 1: Design Mini-challenge ● Activity 2: End User Profile ● Activity 3: Real Talk Circle: Stereotypes 	<ul style="list-style-type: none"> ● Detailed user profile
3	<ul style="list-style-type: none"> ● SWBAT use bodystorming to fully empathize with the end user's standpoint. ● SWBAT describe how people use symbols to draw boundaries between people based on gender. ● SWBAT describe how beliefs about gender contribute to the development of a sense of self or identity. 	<ul style="list-style-type: none"> ● Hook: Drawing Lines ● Activity 1: Review Design Showcase for WOW! ● Activity 2: Bodystorming ● Flex time ● Assessment: Exit Ticket 	<ul style="list-style-type: none"> ● Analyze a nursery rhyme ● Write a problem statement
4	<ul style="list-style-type: none"> ● SWBAT brainstorm a list of at least 20 possible innovations to respond to the problem statement: "How can we protect girls and women from street harassment?" ● SWBAT select the best problem statement to focus on for their WOW! Project based on which is most feasible. ● SWBAT generate a list of potential innovations to address their WOW! problem statement. ● SWBAT discuss the effects and consequences of gender stereotypes in street harassment and treatment of girls in their communities. 	<ul style="list-style-type: none"> ● Hook: Sisters in Strength ● Activity 1: Brainstorming with Constraints ● Activity 2: Ideate! ● Activity 3: Real Talk Circle: Safety ● Assessment: Exit Ticket/Top Three Ideas 	<ul style="list-style-type: none"> ● Final problem statement ● Top three design ideas
5	<ul style="list-style-type: none"> ● SWBAT build models of three ideas to assess the advantages, limitations, and feasibility of each idea from a practical standpoint. ● SWBAT state and use the advantages, limitations, and feasibility to select the best idea to create in response to their problem statement. ● SWBAT use Building to Think as a step in the design process. 	<ul style="list-style-type: none"> ● Hook: Princess Awesome ● Intro to New Material: Building to Think ● Activity 1: Building Time ● Activity 2: Group Debrief ● Assessment: Prototype and Written Reflection from Activity 2 	<ul style="list-style-type: none"> ● Models of three products and written reflection
6	<ul style="list-style-type: none"> ● SWBAT describe a sound, multi-step process for realizing their idea that addresses their problem statement. ● SWBAT identify tools and materials needed to realize their idea that addresses their problem statement. ● SWBAT evaluate the impact of gender inequality and stereotypes on girls' nutrition and eating habits. 	<ul style="list-style-type: none"> ● Hook: Lunchtime! ● Activity 1: Process Maps ● Activity 2: Sketches & Materials ● Activity 3: Real Talk Circle: nutrition ● Assessment: Process Map and Sketch 	<ul style="list-style-type: none"> ● Process map ● Sketch with materials labelled
7	<ul style="list-style-type: none"> ● SWBAT create a plan to field test their idea and collect data to improve their idea. ● SWBAT create a draft prototype of their idea addressing their problem statement. 	<ul style="list-style-type: none"> ● Hook: Revisiting Goldieblox ● Activity 1: Build! ● Activity 2: Plan for Testing 	<ul style="list-style-type: none"> ● Second-round prototype



Core Apprenticeship Library
Apprenticeship Sector: Design & Invention
 Unit Guide: *We Run This: Girls in Charge*



	<ul style="list-style-type: none"> ● SWBAT identify the effect of lifting each other up with praise. 	<ul style="list-style-type: none"> ● Activity 3: Real Talk Circle: Lifting up vs. Dragging down ● Assessment: Prototype and Questions for Users 	<ul style="list-style-type: none"> ● 1-3 key questions for test groups
8	<ul style="list-style-type: none"> ● SWBAT identify advantages and limitations of their idea from an end-user standpoint. ● SWBAT conduct a field test collecting data to refine and revise their idea. 	<ul style="list-style-type: none"> ● Hook: Revising Barbie ● Activity 1: Field Testing ● Activity 2: Empathy Map ● Activity 3: Field Testing Reflection ● Flex time ● Assessment: Survey Data and Reflection 	<ul style="list-style-type: none"> ● Survey data ● Written reflection/plan for improvement
9	<ul style="list-style-type: none"> ● SWBAT refine and revise their idea based on feedback, data, and reflection. ● SWBAT create a final prototype of their idea addressing their problem statement. ● SWBAT discuss how beauty standards impact girls' self-esteem. ● SWBAT demonstrate mastery on sociology of gender standard. 	<ul style="list-style-type: none"> ● Hook: "I'm a Girl" ● Activity 2: Build! ● Real talk circle: Beauty ● Assessment: Exit Ticket 	<ul style="list-style-type: none"> ● Final prototype or product
10	<ul style="list-style-type: none"> ● SWBAT build a display to showcase and share their idea for the WOW! ● SWBAT write a designer's statement for their final prototype. ● SWBAT practice verbally explaining and sharing their idea and prototype. 	<ul style="list-style-type: none"> ● Hook: Like a Girl ● Activity 1: Designer Statement ● Activity 2: Build Displays ● Activity 3: Design Showcase Prep ● Assessment: WOW! Checklist /User Surveys 	<ul style="list-style-type: none"> ● Final Display for WOW!S

Lesson Elements

Hook	Opening activity will vary from lesson to lesson, but will often involve analyzing an innovation created by a young female designer or a product created to revise or correct stereotypes of girls and women.
Opening ritual used each week to build excitement	
Assessment	<ul style="list-style-type: none"> ● Exit tickets ● Materials for WOW! presentation. Throughout the 10 weeks, students will create materials (i.e. a "design challenge statement" that is motivating their innovation) which will be part of their display at the Wow!
How you will measure student learning (i.e., exit tickets, student writing, student presentations, etc.)	
Structures	<p><u>Modeling:</u> Modeling the process you are teaching is one of the most effective ways of helping students grasp it. If at all possible, one or both teachers should complete the steps of the design process before each class (i.e. before lesson #2, create your own end user profile). Make this a design challenge that is relevant to your career or your life! There is no need to produce perfect products--in fact, it's better if you encounter problems and work through them, modeling the trial and error process of design. Have these models available in class for students who need more guidance, or as a way of clarifying the procedure as needed.</p> <p><u>Case studies:</u> Students will analyze the work of female innovators with an eye toward the specific step of the design process they are learning and doing in that session. These will usually be in a whole-group and will often require a computer that is connected to a projector and the internet. If internet connectivity is a problem, download any videos in advance. If there is no projector, you can make do with the computer screen for videos and substitute handouts for the still images.</p> <p><u>Real talk circle:</u></p> <ol style="list-style-type: none"> 1. <u>Overview:</u> The session will often end with a conversation about a specific issue relevant to girls. It is a flexible time for students to discuss what's on their mind. The goal is to build a safe and supportive community and to help the group identify issues, problems, or obstacles that they face as girls and to support each other in finding solutions. Topics are
Learning structures, tools or student grouping strategies	



	<p>suggested in lesson plans, but leaders should adjust them based on student interests.</p> <ol style="list-style-type: none"> 2. <u>Routine</u>: It will be important to follow a specific routine during this time; predictability is essential to create trust and safety. <ul style="list-style-type: none"> ● Set up: Arrange seating, or sit on the floor, in a relatively tight circle ● Opening: Leader should repeat a predictable welcome to mark the opening of this time. It could be something like "Welcome to our safe space. Please close your eyes and take a deep, relaxing breath. Remember that this is a time for honest conversation, active listening, and mutual support." ● Guiding questions: Kick off discussion with a question, and if the conversation veers off track or dies down, offer other questions to spark it. ● Closing: Repeat a predictable closing statement thanking and praising the group. 3. <u>Topics List</u>: Keep a running list of possible topics for these conversations and allow students to suggest additions to it. It's likely that profound and perhaps emotionally loaded questions and issues will crop up unexpectedly in the course of class meetings. You will probably be able to address some of them productively and without straying too far from the plan as they arise (either individually or with the group). At other times, you are likely to be stumped, or fear that the topic may pull focus away from an important activity. In those cases, affirm the importance of the question and add it (or ask the student to add it) to the list so that you can remember to address it in a future meeting. <p><u>Partner work</u>:</p> <ul style="list-style-type: none"> ● <u>For activities</u>: Plan to vary partners, so that girls work with all of their classmates at some point. You can count off by two, or quickly pair students up by name ("Lisa and Tricia," etc), or, to save time, write lists of partners on the board before class begins. ● <u>For the WOW! project</u>: Students should be allowed to work on their design project independently or with partners. Partner work may involve some negotiation of disagreements, so plan to intervene and guide those conversations as needed. <p><u>Assessment</u>:</p> <ul style="list-style-type: none"> ● You will find three rubrics attached to this unit plan. <ul style="list-style-type: none"> ○ Formative Rubric: Innovation - Print this and complete the appropriate rows after each lesson. ○ Summative Rubric: Gender - Interview questions to be asked during Lessons #9 and #10 work time. ○ Summative Rubric: Innovation - Complete this after Lesson #10 ● The end user survey, which guests at the WOW! will be asked to complete, is attached to Lesson #10 as part of the WOW! preparation.
<p>Procedures</p> <p>Special procedures used each class (ie handing out folders, rearranging seating, etc.)</p>	<p><u>Student folders</u>:</p> <ol style="list-style-type: none"> 1. <u>Set up</u>: Each student should have a manila or pocket folder in which to keep each week's work. They will use much of this again, and some of the handouts will ultimately become part of their WOW! displays. 2. <u>Procedure</u>: A lost folder would set a student back significantly, so keep this with you. Students should pick them up as they enter the room and drop them off as they leave. 3. <u>Comments</u> 4. <u>Assessment</u>: You will use the materials in the folder to assess students after each lesson. As you do that, you might take the opportunity to neaten them up as needed, and pull out any handouts that they won't need again (keep these, just in case). This will save time when they need to take out a handout from a prior lesson. <p><u>Prototypes</u>: Students will build up to three versions of their product. Arrange for a space in the school where you can store them, if possible. Bring a few boxes for students to turn them in after class.</p> <p><u>Word Wall</u>: Have a poster where you write key vocabulary words as you introduce them (as indicated in lesson plan). Keep it up so that you remember to use them, and to encourage students to use the words so that they acquire them for their own vocabulary.</p>



Photographs: There will be many opportunities for great photos during the unit, so keep your phone/camera handy. Consider what you might do with the shots: do you have a way to print some out so that each student can use it on her final display? If not, you could create a slideshow to project at the WOW! Consider documenting:

- Each version of each student's prototype
- Post-it process maps, which will be hard to store
- Field testing conversations
- The group empathy map
- Any guest teachers who visit
- Moments of collaboration, concentration, and inspiration!

Assessments and assignments: Students should put completed assessments at the top of their Wow! folders and turn the folders in on their way out the door.

Regaining Student Attention: Have a procedure for getting student attention at the end of discussion or work time.

- "Clap once if you can hear me. Clap two times if you can hear me Clap three times if you can hear me."
- Silently hold up on hand and instruct students to do the same when they see you.
- Call and response: "When I say GIRLS ARE, you say IN CHARGE!"

Work time:

1. Set up: Girls should be able to spread out and be comfortable as they work, so invite them to sit on the floor, pull 2 desks together (assuming there are enough), or arrange their work area in the way that best suits their materials. This is relatively unstructured time, so CT/TL should circulate and ensure that students' questions are answered, frustrations addressed, and distractions minimized.
2. Materials and Tools: Create a list of rules for using materials and tools that you will review before students build prototypes. These may included:
 - Avoid wasting materials like glue and tape.
 - Always work over paper, never on an uncovered desk or floor.
 - Ask an adult for help with hot glue gun, box cutter (other dangerous materials)
 - Return unused materials to where they came from
 - Clean up your work area, and help to clean up the classroom
3. Clean up: Build time in to the end each session for students to put away supplies, and return the room to its original condition. Taking care of this as you set up for Real Talk is often most efficient.

WOW! set up (day of event)

- All handouts to be copied are included in lesson #10
 - Make copies of Design Showcase User Survey
 - Bring summative rubrics if they are not complete
 - Set up the space by hanging posters and setting up prototypes
 - Decide where you will have visitors turn in user surveys (a box, a letter tray, etc)
 - Optional:
 - set up slide show (powerpoint) with photos
 - hang up 'Like a Girl' posters
 - hang up roadmap and/or word wall posters



Implementation Notes

Supplies

Materials, tools, technology

1. For lessons and activities:
 - Computer with an internet connection and, if possible, projector
 - Student folders (manila or pocket)
 - Chalk or whiteboard markers
 - Graph paper
 - Markers
 - Pencils
 - Glue
 - Tape
 - Post it notes (standard size is fine)
 - Large paper (butcher paper, poster paper, blank newspaper would work)
 - Paper towels (for clean-up)
 - Boxes to store student models/prototypes
 - Clipboards (only if you can get them for no cost)

2. For WOW! display:
 - Poster paper or tri-fold boards
 - Glue or tape
 - Markers

3. For prototype building:

*Encourage students to bring items like cardboard boxes, egg cartons, milk jugs, and fabric scraps from home.

 - Required:
 - Extra/scrap copier paper
 - Extra/scrap construction and bulletin board paper
 - Lots of cardboard: boxes of all kinds, paper towel rolls, etc
 - Stapler
 - Newspapers
 - Egg cartons
 - Plastic bottles and lids
 - Plastic food containers (milk cartons, deli containers, etc)
 - Fabric scraps; sewing supplies \$5
 - Various kinds of tape: duct, masking, packing \$10
 - Pipe cleaners \$5
 - Glue
 - Rulers
 - Hole punch
 - Paper clips
 - Scissors
 - Various tools from home (distinguish between kid-safe and for use by CT/TL only)
 - Hot glue gun
 - Box cutter
 - Whatever craft or small-scale building tools you might have (no need for drills or other power tools!)
 - Suggested:
 - *Acquire what you can for free or very inexpensively at the beginning of the unit.
 - *Reserve a portion of your budget (\$80) for after lesson #6, where students will make a materials list.
 - *Thrift stores are a great source for materials, as are dollar stores.
 - *You may not be able to acquire every item on the list; get what you can and prioritize collecting a wide variety of objects that are likely to be useful and versatile. The wider variety you have, the more creative students will be able to get



	<p>with their experimentation. It will be a test of your resourcefulness!</p> <ul style="list-style-type: none"> ● Pennies ● Rubber bands ● Binder clips \$3 ● Modeling clay \$5 ● Hot glue gun & sticks (for adult use only) \$15 ● Velcro \$5 ● Old CDs (thrift shops sell them) \$5 ● Clothespins \$3 ● Wooden popsicle/craft sticks \$5 ● Balloons, small pack \$3 ● Zip ties \$5 ● Tissue paper \$5 ● Wooden dowels \$5 ● String/clothesline \$3 ● Box cutter (for adult use only) \$5 ● Aluminum baking tins \$5 ● Aluminum foil \$5 ● Plastic (saran) wrap \$5 ● Small paper cups \$5 ● Drinking straws \$2 ● Ping-pong balls \$2 ● Marbles \$2 ● Magnets \$5 ● Wooden spools \$3 ● Swimming noodles \$5
<p>Budget</p>	<p>Total cost of apprenticeship:</p> <ul style="list-style-type: none"> ● Total cost of items above: flexible, \$75-\$80 ● Total cost of all additional weekly supplies: copies ● Cost of all field trips: \$0
<p>Supporting Materials & Resources <small>handouts, books, materials</small></p>	<ul style="list-style-type: none"> ● Computer with display/projector connected to the internet ● Handouts (included with each lesson)
<p>Location <small>Tables/desks, or classroom, gym, kitchen, outside, etc.</small></p>	<ul style="list-style-type: none"> ● Classroom: a room with tables and a space to arrange a circle of chairs is ideal; one with desks would also work. ● WOW! Space with tables (gym, large classroom, etc) and walls for posters. Scout this out as early as possible so you have a sense of how students will set up their displays. Ideally, they will have tables on which to put their prototypes, near walls where they can hang their posters.
<p>Choice and Voice <small>Key decisions students make</small></p>	<ul style="list-style-type: none"> ● Students will have a voice in determining topics for the real talk circle ● They will choose their own direction at every step of the design process
<p>Modifications for Student Needs <small>Supports and changes to help meet the needs of all learners</small></p>	<ul style="list-style-type: none"> ● Students with motor skill limitations may need help building their prototype, which CT or TL can provide. The students can also be paired with a willing partner. ● Some students are likely to have trouble making design decisions, and so may fall behind in the process. One teacher can work with these students as a group and provide additional guidance; some suggestions are provided in individual lesson plans. ● For students who have difficulty writing: <ul style="list-style-type: none"> ○ Consider pairing them with a willing partner ○ One teacher can act as a scribe, letting the student dictate ideas while the teacher records them. ○ If a keyboard is available, typing may be a helpful accommodation. ● For students who need extra time, the process could be tricky. Options include: <ul style="list-style-type: none"> ○ Remind them that designers all work at different paces, and that's normal. <ul style="list-style-type: none"> ■ Encourage them to finish as much as they can, and then move on. Every bit of every task doesn't need to be completed to make a great project. ■ Before a lesson, identify certain questions or steps that the student should skip.



<p>Student Background Knowledge and Skills Needed</p> <p>Academic skills, social emotional skills or developmental milestones needed</p>	<ul style="list-style-type: none"> ● Students need to be able to engage in age-appropriate conversations on sensitive subjects. A student who struggles with this may need to be explicitly taught how to engage in serious conversations (active listening, body language, affirming others' comments, using "I" statements, making relevant comments) and one on one practice as well as feedback and praise as she learns the skill. ● Students will need to be able to tolerate frustration/ambiguity as they build, test, and refine their product. A student who struggles may benefit from ample affirmation to build her self image, being taught how to calmly voice her frustration, take a break, seek support, and use self-calming techniques like deep breathing, stretches, or guided meditation. ● Students need to be able to interact sensitively and appropriately with peers. If this is a challenge, provide extra support to guide the student and reinforce positive behaviors. If appropriate, enlist the help of classmates to exercise patience and encourage the student.
<p>College and Career Readiness</p> <p>Connections to college and career</p>	<ul style="list-style-type: none"> ● College skills: learning from case studies and examples, identifying and solving relevant problems, generating and evaluating ideas, using an iterative design process, improving a product based on feedback, interacting with end users, critical thinking about sociology and gender ● Career connections: Design of any kind (graphic, product, fashion, architecture, industrial), engineering, entrepreneurship, nonprofit work, a variety of business careers, careers in human services
<p>Co-Teaching Roles</p> <p>Recommendations for co-teaching and planning</p>	<p>Team Teaching: Prior to each lesson, each teacher should identify which activities she will take the lead on. The other teacher should plan to:</p> <ul style="list-style-type: none"> ● Distribute materials ● Keep time ● Write on the board ● Assist struggling students <p>Alternative Teaching:</p> <ul style="list-style-type: none"> ● If a group of students is struggling or falling behind, one teacher should pull them aside to help them troubleshoot or prioritize, offering additional support and assistance. ● You can identify students who would benefit from this based on observation and/or the assessment of each lesson. <p>Parallel Teaching:</p> <ul style="list-style-type: none"> ● Some activities could be easily adapted to parallel teaching, which will be noted in each lesson plan. ● One advantage to parallel teaching is that it allows more time for each student to speak and ask questions. ● If you find that the Real Talk conversations are too short for every student to participate, consider conducting these in two parallel groups.
<p>Special Resources</p> <p>Field trips, excursions, guest speakers</p>	<p><u>Make a plan to support students in need</u></p> <ul style="list-style-type: none"> ● It is very possible, especially in real talk, that one or more students will mention issues that impact their safety--for instance, individuals at school or home around whom they are unsafe, or serious bullying. Talk to your campus director and any guidance counselors at the school about who can follow up with students for whom that is the case. ● Be sure to have a concrete follow-up plan in place so that students who need it can get support quickly from a trusted and qualified adult. ● A few resources: <ul style="list-style-type: none"> ○ Domestic violence/abuse: http://www.lfcc.on.ca/teacher-us.PDF ○ Sexual harrassment: http://teens.webmd.com/features/what-is-sexual-harassment ○ Bullying: http://www.stopbullying.gov/what-you-can-do/educators/index.html <p><u>Field Testing (Lesson #8)</u></p> <ul style="list-style-type: none"> ● There are several ways to do this. Consult with your Campus Director as you plan this. ● Travel to a nearby public place: look for a place where students can approach people safely (perhaps a crowded playground) to share their product and ask questions about it. ● Visit another classroom at school: You could also arrange with another teacher in the building to give your class 20-30 minutes with their group to interview them. ● Recruit local designers, artists, etc. to visit your classroom: If you can find enough people who fit this description and are available, they can share expert feedback and



	<p>encouragement.</p> <ul style="list-style-type: none"> ● Recruit volunteers from within the building: Adult volunteers from around the building could role-play users and provide feedback. This is the most time efficient, but perhaps least authentic, approach. <p><u>Possibilities for Guests:</u> Consider recruiting a guest teacher for one of the following lessons.</p> <ul style="list-style-type: none"> ● Lesson #4 includes a large chunk of time for brainstorming. You could recruit a local design professional to come guide the group in some brainstorming/ideation process that they use in their work. ● Lesson #6 asks students to create process maps (plans for their design) and create sketches. You could recruit a local design professional to share examples of their own plans and sketches and to walk students through the processes that they use at this stage of the design. ● Lesson #7 includes time for students to build a second prototype and to plan questions to ask in field testing. You could invite local creative professionals to help students with the building process and/or to talk about the kinds of questions they ask clients during the design process. ● Lesson #8 continues the building process, and so could also benefit from a creative professional to help inspire students and show them possibilities. <p><u>Gender fluid or transgender students</u></p> <ul style="list-style-type: none"> ● Gender fluid and transgender students who identify as female should be welcomed into the apprenticeship. Consider devoting a Real Talk session to the gender binary versus the gender spectrum. ● Resources: <ul style="list-style-type: none"> ○ https://www.genderspectrum.org/ ○ http://www.tolerance.org/gender-spectrum ● You might consult a local advocacy organization for transgender youth or LGBTQ center
<p>Road Map to WOW!</p> <p>Visual overview for students of their 10 week apprenticeship</p>	<p>Note to CT/TL: Create a poster-sized visual of the information listed below, display and reference weekly in your classroom.</p> <p>Visual overview for students of their 10-week apprenticeship:</p> <p>Design Challenge: create a brand-new product that will help young women be happier, safer, or more successful</p> <p>Week 1: Identify problems we can solve with innovation Week 2: Decide who you are going to help Week 3: Write problem statements Week 4: Ideate by brainstorming Week 5: Build to think Week 6: Plan and sketch Week 7: Build first prototype Week 8: Field tests Week 9: Build final prototype Week 10: Prepare for showcase</p> <p>WOW!: Design showcase</p>



Co-Teaching Structures Guide

Teaching Model	Description	Why should we use it?	When should we use it?
Parallel Teaching 	Class is split into two (or more) small teams. <u>Same</u> content is taught to each team.	<ul style="list-style-type: none"> ·Low student-teacher ratio ·Greater proximity to high-risk students ·Co-teachers have equal presence and responsibility in the classroom 	<ul style="list-style-type: none"> ·We can plan effectively together to ensure we teach the same content to each group well. ·Classroom's physical structure permits it. ·Lessons with heavy independent work ·Need to provide a lot of individual attention
Station Teaching 	Class is split into two (or more) small teams. <u>Different</u> material taught to each group simultaneously and then teams switch or teachers switch.	<ul style="list-style-type: none"> ·Low student-teacher ratio ·Co-teachers have equal presence and responsibility in the classroom. ·More variety in teaching methods for teachers and students 	<ul style="list-style-type: none"> ·When a lesson can be split into two mutually exclusive and equally timed parts (e.g. using a camera/critiquing a photo, chopping vegetables/measuring ingredients) ·Classroom's physical structure permits it ·Lessons with a lot of knowledge or skill-building
Team Teaching 	Both teachers actively teach the material taking turns during the lesson to lead teach. While one teacher is lead teaching the other goes around to groups or individual students.	<ul style="list-style-type: none"> ·One teacher can pay attention to high-risks students while one teacher leads the full class. ·Co-teachers have equal presence and responsibility in the classroom. 	<ul style="list-style-type: none"> ·When it's difficult to effectively split a lesson into two stations ·When a lesson has lectures and independent practice time ·If most SPED students can follow whole-group instruction ·Best with well-developed co-teaching relationship ·Lessons with a lot of group work
Alternative Teaching 	One teacher remediates a small group of students (pre-teach, re-teach, supplement, or enrich) and catches them up for the main lesson being taught by the other teacher.	<ul style="list-style-type: none"> ·Low student-teacher ratio. ·To remediate in class for a small group of students. ·To catch students up who may not have understood/missed previous lesson 	<ul style="list-style-type: none"> ·When the benefits from a few minutes of remediation/ pre-teaching will pre-empt greater misunderstandings for the lesson. ·Classroom's physical structure permits small group in one part of the room. (CTs should not be left alone in the classroom with students.)
One Teach, One Assist 	One teacher lead teaches the whole lesson and the other teacher works with individual students.	<ul style="list-style-type: none"> To redirect behavior from an especially low functioning student. To pay greater attention to a student who needs one-on-one interaction in order to keep up 	<ul style="list-style-type: none"> ·If there is a particularly high-needs student(s) in the classroom that need specific support. ·During direct-teach sections of the lesson



The Pitch

*All notes found here are also in the PowerPoint presentation

Slide One

- Have you ever thought about how designers change the world, how they help people with their innovative thinking? That's what you will learn how to do in this apprenticeship! Here's an example of what designers can do:
- SHOW 1:00 VIDEO
- Not only do people design and build skyscrapers and planes, but someone designed the toy that this commercial is advertising.

Slide Two

- It was designed by these two college friends, who noticed that there weren't very many women in their engineering program at Stanford.
- In fact, only one-sixth of engineers are female.
- They wanted to solve that problem, and they decided to invent and design a new product.
- It turned out to be a toy that would get young girls interested in building things!

Slide Three

- If you watch Shark Tank, you might already know about their invention, a toy called "Roominate"
- They got two investors on the show, if you're wondering.
- Now their design is being sold at stores everywhere.

Slide Four

- In this apprenticeship, you'll learn the same process that those designers (and many others) use.
- It all starts by noticing a problem—at school, in their community, or in the world in general.
- After they make up their mind to try to solve it, they get to work on their design—just like you will.

Slide Five

- On the first day of the apprenticeship, you'll get a design challenge—kind of like you see on many TV shows.
- Then you'll learn how to think like a designer while you create a product.
- What you design will be up to you—it can be almost anything.
- At the end, we'll have a Designer's Showcase where you will share your product with your family, friends and community!

Materials Needed for Pitch Day

- Computer, PowerPoint presentation, and projector.

Apprenticeship in Action

Coming soon!



Apprenticeship Description for WOW! Communications

In this apprenticeship, girls will learn the principles of design in order to create a product that empowers girls in their community to overcome stereotypes and achieve their dreams. Whether it's a toy for younger girls, an article of clothing, a work of art, or a new afterschool club, they will invent, design, plan, and build their product. In doing so, they will follow the principles used by design professionals. Along the way, girls will have a chance to talk about their own concerns, questions, and problems in a supportive and safe group. They will also analyze advertising and media and its effect on girls' self-image. We'll host a design showcase at the end, where students will share their final products with their users: girls their age and younger. By sharing their process and letting users try out their product, girls will not only be designers, but innovation role models.

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Formative Rubric: Innovation

Complete each after the lesson(s) indicated in parentheses, responding to the questions posed in the assessment section of each lesson.

M = full mastery (you can answer “yes” to all questions)

P = partial mastery (you can answer “yes” to some questions, or “somewhat” to all questions)

N = no evidence of mastery (you answer “no” to all questions)

student names>																
1. Identify problems to solve (L1)																
2. Identify who will benefit (L2 / L8)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
3. State the challenge (L3)																
4. Brainstorm (L4)																
5. Trial and error (L5 / L7)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
6. Practical advantages and challenges (L5)																
7. Select best idea using criteria (L5)																
8. Process (L6)																
8. Tools and materials (L6 / L8)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
7. Plan for field testing (L7)																
8. Share and gather feedback (L8)																
9. Evaluative processes (L8)																
10. End user standpoint (L8)																
11. Create a product that suits a purpose (L9)																
12. Describe the purpose (L9)																

*please note that objectives #2, 5, and 8 will be evaluated in two separate lessons.



Summative Rubric: Innovation

Use the WOW! poster/display to complete

M = full mastery - designated piece of work clearly achieves the criteria

P = partial mastery - designated work addresses the criteria but not entirely, or addresses part of the criteria

N = no evidence of mastery - work is missing, or does not address criteria at all

student names>															
1ai & iii - Problem Statement - States the problem in her own words															
1aii - User Profile - Identifies who will benefit and analyze likely interests and abilities															
1aii - Empathy Map - Identifies who will benefit and analyze likely needs															
1b - Brainstorm - Generates a list of innovations that address the problem															
1c - Build to think reflection - State the advantages, limitations, and feasibility from a practical standpoint															
2a - Process map - Describe a sound, multi-step process*															
2b - Sketch - Identify tools and materials															
2d - Field testing questions - Describe a plan for field testing the idea (questions)															
2b - Field testing data - Shared work and gathered feedback															
2c - Empathy map/FT data - Use reflection or data analysis to refine and revise the product or idea															
1d - Field Testing Reflection - States advantages, limitations, usability for end user															
3a - Prototype/Designer statement - Created a piece of work that meets a pre-determined purpose															

*may not be available at WOW! -- if not, consult photos or actual maps in folders



Summative Rubric: Gender

Complete through conversation with students during work time in lessons #9 and 10. If you need more time, you could complete it at the WOW!

M = full mastery (confident, on-point, reasonable answer)

P = partial mastery (on-point, partial answer)

N = no evidence of mastery (unrelated or implausible answer, or no answer)

student names>																			
1a. Define key issues or problems. ASK: Tell me about one issue or problems that girls face in our community? *Or use problem statement.																			
1b. Evaluate the effects and consequences of gender stereotypes. ASK: Do you think gender stereotypes matter? Why? *Or use designer statement																			
2. Describe how people use symbols to draw boundaries ASK: What's one specific way that boys and girls are kept separate in our community? *or use L#3 exit ticket (question 2)																			
2a. Evaluate representations of gender in media. ASK: Can you think of a movie, song, or TV show where you like the way girls are portrayed? What is positive about it?																			
2b. Describe how beliefs about gender contribute to the development of a sense of self or identity. ASK: What gender stereotypes have affected you personally? How?																			
3. Propose or evaluate alternative responses to gender inequality and/or stereotypes ASK: What's one thing girls can do to overcome gender stereotypes? Why do you think that would work? *Or use exit ticket L#9																			