# **VENTURELAB USER GUIDE**





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## **INTRODUCTION**

#### About VentureLab's Curriculum

Learning to have the mindset and skillset of an entrepreneur will be invaluable throughout your students' education and career, particularly as career opportunities change and STEM fields grow at a rapid pace. The curriculum features hands-on activities that inspire curiosity, creativity, and collaboration, while teaching students how to think entrepreneurially, identify and anticipate diverse societal needs, and create products and services that fill those needs. The lessons introduce students to the fundamentals of the entrepreneurial mindset and skillset and how the entrepreneurial process can bring new creations or solutions to life.

Students will learn to embrace and reimagine failure as a learning process and become more confident and creative problem-solvers. They will learn new ways for effective brainstorming and how to apply design-thinking. They will conduct market research, and practice pitching, presenting and public-speaking.

#### The Entrepreneurial Mindset and Skillset

When students, particularly girls, are exposed to entrepreneurial thinking, a profound change takes place. They become aware of opportunities around them. They think more critically and creatively. The result: they become more confident and experimental in their ability to problem-solve and tackle challenges.

Entrepreneurship isn't just about starting companies; it is a skillset and a way of thinking. It involves identifying needs, brainstorming creative solutions, innovating, and taking calculated risks. In short, it's about having a vision and making it a reality. Anyone can be entrepreneurial in their own way (think back to that summer you spent selling lemonade as a kid!). For example, artists and doctors may open their own gallery or practice. Teachers have to find the right resources for their classroom. Some Girl Scouts find innovative ways to sell cookies through online platforms. And even within companies, innovation is necessary in order to stay competitive!

That's why we believe that learning and practicing entrepreneurship starts with nurturing an entrepreneurial mindset. This includes the ability to be confident and creative, to learn from failure, and to work well with others to bring your ideas to life. People sometimes say there should be a simpler, less clunky word for all this. But to us, 'entrepreneurship' is a short, amazing word that encompasses everything it's about: vision, creativity, innovation, initiative, persistence, risk and fear tolerance, collaboration, resilience and determination—in just five syllables.



The VentureLab entrepreneurial curriculum directly and indirectly teaches the critical skills and mindsets of an entrepreneur, helping kids to see themselves as tomorrow's entrepreneurial leaders, regardless of what career path they choose! Core Entrepreneurial Mindsets:

- 1. Curiosity
- 2. Growth Mindset
- 3. Courage
- 4. Persistence and Grit
- 5. Opportunity-Seeking
- 6. Problem Solving
- 7. Redefining Failure
- 8. Optimism
- 9. Resourcefulness
- 10. Adaptability
- 11. Empathy

#### Core Entrepreneurial Skills:

- 1. Creativity
- 2. Teamwork
- 3. Idea Generation
- 4. Opportunity Analysis
- 5. Market Research and Customer Validation
- 6. Design-Thinking
- 7. Prototyping
- 8. Business Model Methodology
- 9. Pitching
- 10. Public-Speaking

# ROLE OF THE INSTRUCTOR AND LEARNING ENVIRONMENT

#### Instructor Mindset

VentureLab Instructors should serve as mentors, guides, facilitators and champions. Entrepreneurship is not black and white. It is not 2+2=4. Many times, even as the instructor, you won't know the answer. You may not know if a student's idea will work or if there is a market for their product. Encourage your students to do more research and to continue testing their ideas, and don't be afraid to let the students know that you are learning right alongside them! In fact, acknowledging your own learning process is a great way to lead by and embody an entrepreneurial mindset.



The instructor must also serve as a cheerleader or champion. Many times, it will turn out that an idea won't work and the students will have to try something different. The students may be disheartened at realizing that they have to come up with a new idea and start from scratch. This is where the instructor can really serve as a guide and encourage the students to look at the problem from a different angle and show them that this is part of the learning process. They will not lose points or be seen as having failed.

Success will come in all shapes and sizes, and it is important to know when and what to celebrate. Each student will grow at a different pace; a group may struggle for a long time to create a prototype where another group may develop one very quickly. As an instructor, it is important that you don't compare one team to another—all milestones look different!

Remember, the goal for the students is learning a mindset and skillset that can be used later in their future, not necessarily starting a company.

#### Establishing the Right Environment

The single greatest influence on learners' well-being is the climate of the classroom or learning environment. In a classroom typified by positive challenge and joy, the body releases endorphins which elevate our feelings and cause us to feel good. A positive learning environment promotes better problem-solvers and higher quality learning<sup>1</sup>. As an instructor, you should strive to foster a culture of creativity and curiosity. Create an environment that is accepting of all people and all ideas, where it is okay to try and fail. This safe space for exploration and trial and error is vital to student learning and the development of the entrepreneurial mindset.

Many times, students come up with ideas that may seem impractical. Instructors should encourage students to fully explore their ideas and then serve as a guide to help them focus their ideas. If a student has a great idea, but it is not appropriate for the learning environment, students should be directed to a new problem or issue.

Students are asked to take risks in this program—to step out, create, share and work with peers in ways they might not have done before. The relationships established with and among students will be critical for students to feel safe to take those risks. Instructors should encourage students to listen to, and consider, other people's ideas

<sup>&</sup>lt;sup>11</sup> Jensen, E. (1998). Teaching With the Brain in Mind. Alexandria, VA: Association of Supervision and Curriculum Development.



with respect. We recommend you develop a list of values and responsibilities with your students before you start your first VentureLab lesson, have them sign it, and display the list on the wall to create a sense of shared responsibility and care.

One of the best gifts we can give our students is an environment of relaxed alertness. The goals of relaxed alertness include the following:

- Eliminating fear
- Creating a highly challenging learning environment
- Fostering energy and excitement
- Creating space for emotional openness.

This environment will encourage students to work quickly, fail often, reevaluate, and troubleshoot—all important aspects of embracing the entrepreneurial mindset. In an atmosphere of relaxed alertness, instructors make an effort to eliminate fear while maintaining a highly challenging environment. For instance, instructors may play music when appropriate to set a relaxed tone. Bright lights may be dimmed.

VentureLab programs typically have students work in teams, drawing and writing with colorful markers on butcher paper or even windows! We prefer an open classroom/learning space that is modular so tables can easily be moved around for teamwork.

All students learn in different ways. We want to activate students' entire brains and utilize all of the students' senses: sight, sound, touch, movement, etc. because students learn best when concepts are reinforced with multiple sensations through art, drawing, colors, music, etc. Students don't always need to be sitting at their tables writing neatly!

#### Girls and the Entrepreneurial Mindset

Studies show that many girls self-select out of things that are risky or hard because they are afraid that they might fail or won't perform perfectly. We've seen firsthand at the beginning of our programs girls who have a "nurtured apprehension" to standing up and speaking up—girls who have been taught to drop out, instead of having the confidence to pursue their interests. In today's global economy, "[c]ompanies are in desperate need of innovation and talented people who are capable of solving global, complex problems."<sup>2</sup> To be able to tackle these problems, we need to arm girls with



<sup>2</sup> https://www.forbes.com/sites/pauladavislaack/2017/03/08/lets-teach-girls-to-be-brave-not-perfect/#7ef2f90f46df

the mindsets and skillset to allow them to grow into passionate innovators. We need to develop their confidence, skills and resilience, so they can transform their ideas into reality. **In other words, we need to arm them with the entrepreneurial mindset!** 

While all of the VentureLab curriculum is completely appropriate for both girls and boys (we whole-heartedly believe that we need to raise boys with the entrepreneurial mindset too!), our research-based curriculum was created and designed in particular to promote girls' learning. These lessons emphasize collaboration, communication, connection, real-world connections and problem-solving for a cause— all important factors in girls' learning. Whenever possible, we have also used real-life examples of female entrepreneurs so girls can be exposed to entrepreneurial role models, both girls their age and professional women.

#### Tips on Working With Girls With This Curriculum

#### Instructor Mindset

1. **Embody confidence!** It's easy to forget that girls learn not only from what you say to them, but what you say about yourself. Research shows that girls can pick up attitudes and insecurities from parents and teachers. Do not put yourself down and avoid negative language about yourself.

Make sure that when you talk about any areas of weakness you feel you have, you apply a growth mindset. (e.g. Instead of saying "You kids are very creative, which is great—I've never been very creative," say "I've never had the chance before to learn ways to be creative before these lessons—I'm learning right along with you guys!").

Using the VentureLab youth entrepreneurship curriculum may be the first time you've worked with kids and/or taught the topic of entrepreneurship, which can be nerve-racking or make you feel insecure. You may find that you run out of time on a lesson, don't know the answer to a question a student asks, or an activity doesn't go as planned. Do not panic! \*\*Rather, use these situations as important opportunities to model the entrepreneurial mindset!\*\* Learn from failure (ask yourself what you could do next time to make the lesson go more smoothly), be optimistic and adaptable ("We ran out of time, but we can pivot and pick it up where we left off tomorrow").

No one's perfect, including you...and that's the GOOD news! We want girls to see relatable and real-life role models who live and breathe the entrepreneurial

mindset. We don't want to teach girls they have to be perfect...rather we want them to be resilient in the face of challenges and this starts with you!

2. Small moments matter. Some of the most impactful moments for girls can come in between activities or through a passing comment. When a girl's prototype doesn't work as expected, you have the chance to help her realize and internalize that it's okay for something to not work the first time (or second or third!) and remind her that the most successful entrepreneurs have things go wrong all the time. Learning to be resilient in the face of failure has the power to impact a girl for the rest of her life. Don't feel pressure to run a perfect program—remember, you are trying to change a mindset, not prepare a child for a graded exam. And that can happen when you least expect it (even during a snack break)!

#### **Developing Girls' Confidence**

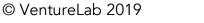
Research shows that there are multiple barriers to girls' confidence, including fear of failure, perfectionism, sensitivity to criticism, and language of self-doubt. Here are some tips to address these barriers as you go through our curriculum.

1. Fear of failure

Entrepreneurial education infuses instances of failure with positive meaning. Girls learn that everyone fails. It's how you deal with failure that makes all the difference. At VentureLab, successive failures are built into the curriculum and provide girls with a safe environment to examine the role of failure in real time, in supportive groups of peers. For many girls, a VentureLab entrepreneurial class is the first time that they have seen failure as a valuable, vital part of the learning process.

When something doesn't work, or go according to plan, emphasize that failure is a part of the entrepreneurial process! Give examples of times that you've failed, or when things haven't gone as well as you expected them to. Reinforce the growth mindset: if they are struggling because they are being challenged, that's because they are trying something new!

2. Perfectionism—In the real world, rarely is there time to work on any project enough to get it to be perfect—particularly for entrepreneurs! Entrepreneurs expect that there will always be ways their product/service can and should be improved. However, often girls aren't getting the message that getting everything perfect all the time isn't realistic, which can end up holding them back from taking risks with potentially huge pay-offs.





"The desire that many girls have to 'get it right' can quickly topple into anxiety and perfectionism. Perfectionist girls may constantly seek reassurance from you that they are doing the right thing, teach them to trust their instincts and do what they think is right most girls will do what is asked of them, but they may be less likely to realize that they have acquired a skill."<sup>3</sup>

A number of VentureLab activities are intentionally set up so that kids don't have enough time to "perfectly" achieve their goal. And then we ask them to present their solution in front of the other kids! That's because we want kids, particularly girls, to practice sharing work they've created that is not perfect, even if it feels uncomfortable. If a girl (or boy!) seems anxious during these activities, make sure to address it either with her directly or with the whole group (e.g. ask the group "Who found it hard to get up and present a product idea that you've only worked on for 2 minutes??"). Engage the group in a discussion about perfectionism so that you can reinforce the point that nobody's perfect, no work is perfect and that entrepreneurs can't let perfectionism rule them or slow them down, otherwise, their great ideas would never become realities!

For many girls, the pressure of perfection limits them from taking risks, raising their hand in class, participating in new activities, expressing their creativity and pursuing their dreams. By creating a freedom for failure environment, we encourage girls to be curious, bold and daring, showing them that you can be wrong and at the same time experience progress and eventual success.

#### Sensitivity to Criticism

Successful entrepreneurs recognize critical feedback for what it is—a way to help them improve anything related to their product/service. They seek it out and expect to get critical feedback from different perspectives including potential customers, actual customers, investors, competitors, colleagues etc. After all, it's hard to make things better if you don't know what's wrong!

However, research shows that girls can be sensitive to criticism, taking it not as helpful feedback but rather as a negative judgement on who they are. As an instructor, you can set the tone for how critical feedback is perceived—like failure, you want to celebrate it as a chance to learn and a reflection of work, and not a person's worth. Talk about times when you got critical feedback and how it was ultimately helpful.



<sup>&</sup>lt;sup>3</sup> http://andrewfuller.com.au/wp-content/uploads/2014/08/Teaching-Girls.pdf

Emphasize that criticism's aim (at least criticism you should take seriously!) is about helping you improve, not a negative judgement about who you are, your abilities or your potential.

#### Language of Self-Doubt

Be on the lookout for the following kinds of language from students, particularly from girls:

- 1. "This is probably a stupid [dumb, bad, unoriginal...] idea but..."
- 2. "I'm sure I'm wrong but what if..."
- 3. "How am I supposed to know? I'm not good at this..."
- 4. "I'm not good at \_\_\_\_\_."
- 5. "I'm not creative [confident, a good public-speaker, good at solving problems]."

Discourage language like # 1 and 2 above—have students restate their ideas without that language. Remind them that part of being a successful entrepreneur means sharing all ideas, no matter how bad or stupid something sounds (see the idea generation lessons for rules on how to effectively brainstorm—which includes that the more ideas you put out there the better and that wild or exaggerated ideas are welcome!).

If you hear language like # 3, 4 and 5, help girls to reframe these kinds of statements using a growth mindset—such as "I'm not a good public speaker YET...with practice I know I can get better" or, "I never thought of myself as creative because I'm not very interested in painting or drawing but now I realize that there are many ways to be creative AND that I can learn to be more creative. It's a skill like anything else—you just need to practice."

#### Group Dynamics

Girls can thrive during small group collaboration because it lets them learn through hands-on work that affects their lives and influences the lives of others. They tend to like the discussion aspect of group work. Be sure to encourage collaboration whenever possible—let girls know that talking through their thoughts and ideas with others is not cheating, it's entrepreneurial!

Groups need to be carefully considered in order to help girls feel most comfortable and productive. Interpersonal relationships can affect girls' willingness to participate in whole class or small group work. Girls who feel like they're being left out of groups by



friends or are not being chosen to be partners can experience low self-confidence, which in turn impacts their learning and participation. Also, once they're in groups, girls may be more willing to step aside and let others be leaders depending on social relationships.

To help address some of these social dynamics, consider using teacher-selected groups (and get as fun and creative about this as you want!) as often as possible. Also, when appropriate, assign roles within groups. When all students have been assigned to groups and roles, the social dynamics become less of a factor—girls will know that they have a particular role to play within the group because that is the assignment and not because a peer decided their fate.

Most importantly, in co-ed settings, be sure to give girls plenty of opportunities to take on leadership and speaking roles in their groups. And, in activities that involve building/constructing things, keep an eye on the groups to make sure that the girls are participating in the hands-on component of the activity i.e. not just taking notes while the boys are actively manipulating the materials.

### **CURRICULUM DETAILS**

#### Sequencing

The lessons are developed and organized with a purposeful sequence to ensure that students acquire the skills and strategies needed to apply new learning in meaningful and increasingly challenging ways. If possible, we recommend that you start with the first lesson and work through them in order. However, the lessons have been designed so that they can be used in a stand-alone manner if you only have time for teaching individual topics. We strongly suggest that if you are going to do stand-alone lessons that you choose Lesson A before you do a Lesson B of a particular topic.

**\*Note:** Opportunity Analysis Lesson A is needed in order to provide the context and vocabulary for Opportunity Analysis Lesson B.

If you start with a later lesson prior to completing the Intro lessons, you'll want to take a few minutes before you start your first VentureLab lesson to discuss what entrepreneurship means and what an entrepreneur is with your students. Let them know that entrepreneurship isn't just about running a business or starting a company, but that it's a skillset and a way of thinking. Entrepreneurship involves identifying needs, brainstorming solutions, innovating, and taking calculated risks. In short, it's about having a vision and making it a reality.



#### Lesson and Activity Duration

The lessons are designed to be 90 minutes long but are separated into shorter activities that can be completed over the course of 2 or more lessons, depending on the amount of time you have with your students/length of your classes.

Individual activities are designed to take anywhere from 5-10 minutes to 65 minutes. At the beginning of each lesson, you will see the estimated duration for each activity.

The actual time it will take to do each activity or lesson will depend on a number of factors e.g. the size and age of your group, the level of student experience with/interest in particular topics, and how comfortable the group of students are with one another. You should feel free to spend less or more time than the suggested duration if students are going through the material more quickly or slowly. We especially encourage you to let students delve more deeply into an activity if they seem very engaged with a particular topic!

We also provide ideas for optional extensions and homework assignments that will allow students to continue to practice the entrepreneurial skills and mindsets. You may also find there are other places within the curriculum where you could turn an activity in class into a larger project that could be done over multiple classes or completed in groups or on their own outside of class time. We encourage you to be innovative about how to best engage your students!

**VentureLab** thrives off feedback. VentureLab is committed to the refinement and improvement of this curriculum. In an effort to create the best environment for our learners, all feedback will be welcomed and considered.

#### **Materials**

Please see individual lessons to find the specific materials needed. Whenever less common materials are specified, we typically include notes in the lessons on what can be used as an alternative so you are not limited by what materials you can access.

Common materials throughout the program include the following:

- Household materials and recycled items like aluminum foil, cling wrap, popsicle sticks, cardboard, empty yogurt containers, toilet paper rolls, yarn, string, etc.
- Scissors
- Notebooks (that can be used as "Idea Journals" see below for information on Idea Journals)



- Pencils/pens
- Marker Pens
- Sticky notes
- Projector
- Computers/iPads
- Blank paper
- Masking tape
- Large sheets of paper
- Large construction paper (e.g., 12" x 18")
- Thin markers to make display posters
- Chart paper/board
- Chart markers
- Blank index cards (ideally in four different colors)
- Recording device (e.g. on tablets or smartphones)

Note: Certain design challenges and product prototypes will be built out of recycled materials. To prepare for VentureLab lessons, instructors may wish to notify students and parents that they can bring recycled materials and establish a drop-off location for them.

#### Idea Journals

We highly recommend students keep an Idea Journal (i.e. a spiral or composition notebook or online word processing platform) for the duration of the program. The purpose of the Idea Journal is to record ideas, notes, and inspiration in one place so that students can reference them in the future. For example, students will record their brainstormed solutions to a problem. Then, they will choose one solution to turn into a product. If they realize there is not a viable option for that product, they can refer back to their previously brainstormed ideas for an alternate solution. The Idea Journals capture their ideas so that their notes are not lost as the program progresses. Therefore, the instructor should introduce the Idea Journal to students at the beginning of the students' first VentureLab lesson. Encourage students to decorate or personalize them however they want!

#### Importance of reading lessons in advance and post-activity discussions

We strongly recommend that you read through each full lesson <u>at least</u> one time before you run the lesson with your students. The lessons have been carefully constructed in order to maximize student learning and engagement. In many cases, **the most important connections/revelations that will be made will occur during the postactivity discussions facilitated by the instructor.** In the lesson plans, we offer detailed



notes on what questions to ask the students, as well as what key points and takeaways you will want to be sure to make. Sometimes the post-activity discussion will be a time when new vocabulary is introduced (by connecting entrepreneurial terms with the activity they just did). As an instructor, you want to be sure you are well-versed in the lesson content prior to the lesson in general, and in particular, pay close attention to the post-activity discussion notes provided.

You'll notice that we haven't included anything specific that students should be doing during this discussion because that's up to you. Students don't always need to be sitting at their desks or at tables, quietly taking notes, to listen and learn. We believe all students learn in different ways and we want to support you in helping them activate their entire brain. So, while a discussion is taking place you might have students:

- Take notes
- Listen attentively by writing down key words
- Participate a certain number of times
- Manipulate something front of them (notecards, drawing a diagram, etc.)
- Draw images or mind maps of what they hear
- Stand behind their desks or sit on the floor
- Fill out a graphic organizer
- Record the discussion to listen to later

You might try these techniques with the whole class or you might let students choose what's right for them.

# FREQUENTLY ASKED QUESTIONS

# Will we need access to the internet or computers? Will students be expected to use the internet or Smartphones for this curriculum?

At times throughout the lessons, instructors will want to be able to project certain material as well as show videos from the internet, play audio or share images, so ideally instructors will have access to at least one laptop/computer. Occasionally students will want to access particular websites and online videos. However, most lessons do not require it and the majority of any lesson could be done without students using the internet or a computer. Lessons do not require a 1:1 device-to-student ratio.

With regards to use of computers, tech, and media, we encourage you to be aware of and follow any policies set forth by your school, district, local or federal governmental agencies. Certain websites may contain actively generated content or ads that change





based on local computer usage. VentureLab does not require that students participate in any given portion of the curriculum, nor does VentureLab require that students access or view any given website or use any technology. All curriculum, internet, and technology usage is made at the discretion of the instructor, parent, or group leader.

While not required, it can be beneficial during the lessons to let students capture their work using smartphones by taking photos and videos. Also, if available, students may use their smartphones to access information as part of a particular activity or extension/homework option. However, student usage of smartphones in any lesson is completely optional—instructors should comply with any school/district policies related to smartphone use.

#### If you are using VentureLab lessons in a school:

Your school's instructional technology (IT) staff is a great source of support for solving technical issues. Instructors must ensure that all internet and computer usage is in accordance with the district or school's acceptable internet use policies. We recommend previewing websites and videos used in each lesson in advance to see if any of them need to be white-listed by your school or district's IT department. It is the responsibility of the instructor to ensure that internet use is monitored and all internet material has been properly vetted.

#### What is the intended format/setting of the program?

If you are intending to use the youth entrepreneurship curriculum in its entirety, to run a program, for example, you can do so in a variety of formats/settings including as inschool enrichment, afterschool and community group programs, programs for gifted/talented youth etc. Public, independent, charter and home school groups are all equally welcome in offering VentureLab programs, as are community groups and individual parents.

#### What resources are included?

The VentureLab lessons contain detailed activity plans, including instructor notes, extension and homework ideas, as well as supplementary lesson material as downloads (e.g. handouts, slides), all accessible at no charge on the VentureLab website.

#### What prior knowledge is required to run/participate in the program?

No prior knowledge of entrepreneurship, nor of any particular STEM (science, technology, engineering, math) fields, is required for the program, either by the instructor or the students. Each lesson provides background information on the



different topics and how/why they are an important part of the entrepreneurial mindset and skill set.

#### What if I don't have enough time to go through a full lesson with my students?

Each lesson is developed and organized with a purposeful sequence to ensure that students acquire the skills and strategies needed to apply new learning in meaningful and increasingly challenging ways. However, we understand the realities of the classroom and that sometimes there is no choice but to cut portions of lessons. We encourage you to consider the needs/situation of the students you are instructing to determine which parts of the lessons will be most impactful for your group.

