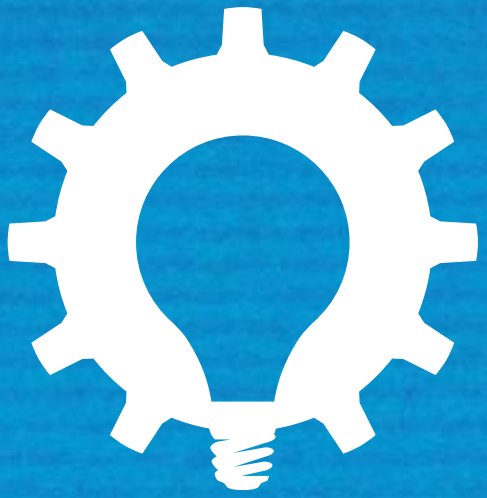


INVENTIONLAND®

EDUCATION

Services & Products Catalog

INVENTIONLAND® EDUCATION

About Inventionland Education

At Inventionland Education, we believe the world is full of **incredibly creative, intelligent, and innovative people...** even if some of them don't know it yet.

Every person is born with the potential to be brilliant, they just need the right tools to succeed. While people may be naturally creative, innovation must be taught. That's what we strive to do here every single day.

Inventionland began as a for-hire design company and we're now the world's largest private invention factory. Over the years, hundreds of our original products have gone to market, each one using the 9-Step Method. We established Inventionland Education by creating a curriculum for schools across the country to teach our 9-Step Method to the next generation of great minds. Our goal is to allow people to experience creativity in their lives every day, whether by creating an immersive work environment or by empowering students with the tools to take charge of their own education.

Contents

Courseware

Real-World Inventing
With Real-World Student Outcomes

High School Level Innovation Course

Innovation Course

One of the core passions of Inventionland Education **is the desire to give everyone the opportunity to reach their full potential.**

Through our years of Researching, Inventing and Making/Prototyping, we've found that the typical school model of teachers lecturing and students memorizing facts simply doesn't work for a lot of students. Though some may excel at left-brain-only learning, those right-brained students whose strength lies in creativity are being left behind. We decided it was time to restructure the classroom model, creating a course that allows all different types of learners to have a place to excel. This was how the Inventionland Education Innovation Course was born.

The Inventionland Education Course teaches students problem-solving, creativity, and real-world entrepreneurial/enterprising skills critical to their future success after K-12 schooling. Rather than using the typical classroom models of lecturing or memorization, we put students in charge of their own education. This is a standards-aligned course that allows students to gain skills that get them ready not only for college and careers, but also for life.

Elementary School Level Innovation Course

During the course, students have one objective: find a problem and create an invention to solve it. For the duration of the class, students learn how to use observational skills, develop ideas, research, design, create, package and present their original inventions.

9-Step Method

The students follow our proven 9-Step Method of success in teams in order to **develop their idea into a fully-formed product, ready to be sold on the market:**

1. Create & Protect Your Idea

Much like a real-life business scenario, Inventors must first define the core problem and their proposed invention. Students will even sign the appropriate documentation to maintain confidentiality between the involved parties/teammates.

2. Research Your Idea

Students will conduct a thorough patent and product search. If there is a similar product on the market, the team considers how can that product be improved upon. The students also research target corporations to gear their pitch towards.

3. Brainstorm Your Idea

Students are encouraged to find as many ways to solve their problem as possible. In this step, they'll create a few rough sketches of their potential invention to find the most efficient design.

4. Sketch Your Idea

At this stage, students will create a final sketch of their design. They are encouraged to use vivid colors, whitespace, and text to make their design look both exciting and appealing to consumers.

5. Model Your Idea

Students will create a concept model or mockup of their product. This simply gives them an idea of what the product will look like and how it will work. Though it mainly involves hot glue and cardboard, this step will help the group spot potential design flaws and allow them to anticipate their engineering needs.

6. Draft Your Idea

In this step, students will actually engineer the parts necessary for their inventions. This involves patience, efficient use of materials, and learning the specific processes behind building parts.

7. Package Your Idea

Next, students will design the packages that will hold their products. This step involves learning how graphic design and secure packaging must work together.

8. Communicate Your Idea

This step emphasizes the importance of the visual appeal of your product. Students focus on the more creative aspects of package design like incorporating fonts and colors that will appeal to their target market.

9. Put It All Together

Finally, we've reached the final product. Students complete the working model of their product which can be interacted with during a business pitch.

By the end of the 9-Step Method and the completion of the course, students are more knowledgeable and confident. They have learned skills that they will be able to use beyond the classroom and into their adults lives.

Here are what some of our teachers are saying about the course's effect on their students.

> "It was awesome to see kids doing some things they wouldn't normally be doing like marketing and research… It was fantastic to see them step out of their element into a real life situation, and just see them be so successful. You could see their confidence and what they think they could do go to astounding levels. It was really amazing."

Eric Stoudnour
Chemistry,
Altoona Area School District.

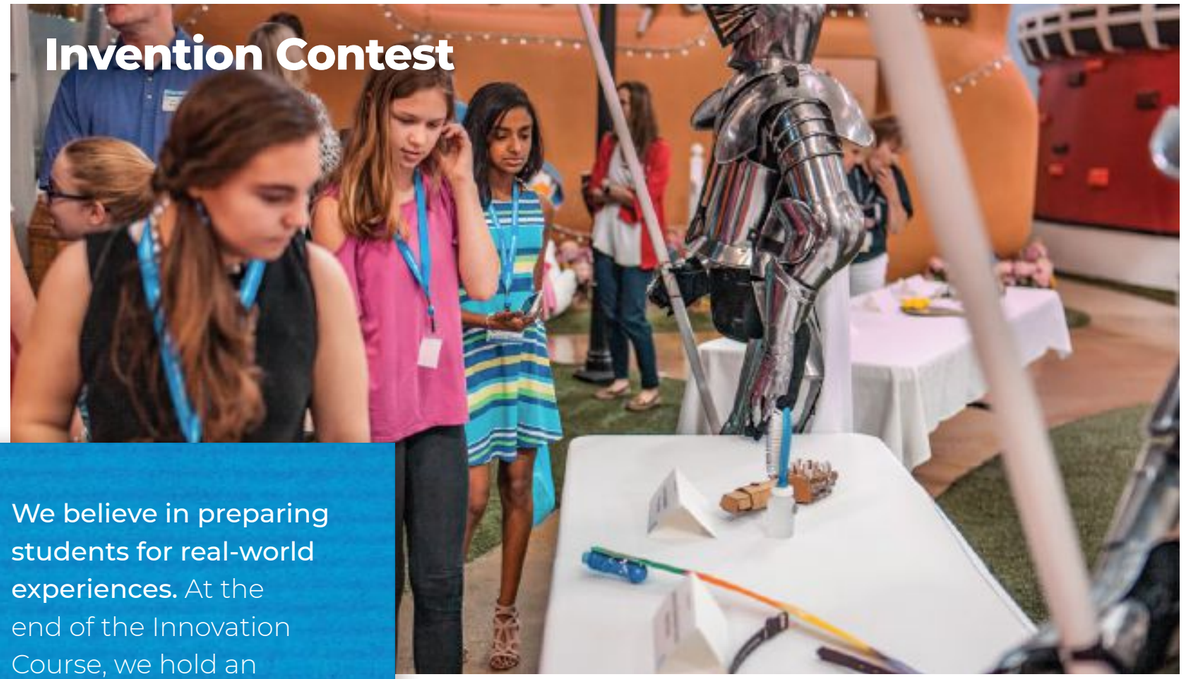
> "I think we actually had a lot of kids who really discovered that they enjoyed learning more than they realized. We had a couple of students that I think I would not say that they were normally academically inclined, who were excited coming to class everyday. And they were really pumped about actually getting to create something."

Frank Harpster
Technology Education,
Altoona Area School District

> "It's interesting to see that [because of this course] we might have students who end up becoming legitimate inventors. Through the process of the innovation course, I saw one student actually change as a person. He was someone who was very quiet, very timid…. He has grown in leaps and bounds. Not only in his confidence and perseverance, but also in the skills that kids need to have for employability. Seeing him organize himself and manage himself through the project was really impressive. I was so impressed with the way it changed him as a learner."

Mandy Figlioli
Curriculum Specialist,
Burgettstown School District

Invention Contest



We believe in preparing students for real-world experiences. At the end of the Innovation Course, we hold an Invention Contest that encourages students to develop confidence in presenting their ideas by pitching the product to a potential investor.

Students follow our ABC's of Storytelling steps, which teach them how to script, shoot, and edit an infomercial for their product. This infomercial puts their marketing knowledge to the test and becomes part of their product pitch for the Invention Contest.

Invention Contest

Students first compete within their schools in front of three judges who evaluate their inventions and presentations. We recommend including district superintendents, local business leaders, politicians, principals, and board members.

The winning group is sent to the regional contest, which is held at our offices in Inventionland. Students get to visit our creative work space while simultaneously getting the opportunity to present their inventions before a panel of state and national experts.

Students are judged based on their invention, their infomercial, and their research. They are asked a series of questions one may expect to be asked in a real-world investor pitch such as:

- What is the cost to make vs. the cost to sell your product?
- Are there any similar products on the market?
- If so, why is your product better?
- What type of companies do you want to work with?

The competing students leave the competition not only feeling more confident, but also possessing new knowledge and expertise on both pitching and marketing strategies.

Professional Development

Providing Knowledge

to Ensure Your Success in the Classroom

Innovation Course Workshop

Teachers who go through our three-day Innovation Course Workshop earn Act 48 credit and can become trainers for their district or state ESA like PA's Intermediate Units, Ohio's ESC or New York's BOCES.

It's not easy to find a classroom curriculum that both challenges and connects with students. Putting students in charge of their own learning can be intimidating, so we designed a training program that gives teachers the tools they need to empower both their students and themselves.

The teachers become the students in our three-day intensive professional development course. During the course, teachers go step-by-step through the Innovation Course Curriculum. They journey through the course as though they are a student, which allows each teacher to get an in-depth look into the work their students will be doing. Each teacher will come up with their own problem, solution, product pitch and sample invention. The goal is to give teachers hands-on experience with the 9-Step Method and The ABC's of Storytelling.

Teachers are also trained to use the Inventionland Education online cloud interface, which will help track the progress of the course when it is implemented in the classroom. This also provides an Online Idea Recorder for students, which will help them keep track of any updates they've made to their invention.

Attending teachers will also go through our 1, 2, 3's of 3D Printing course, which will walk them through the basics of using and problem-shooting a 3D Printer. A 3D Printer is not only a great tool for the modern teacher, but it is also the perfect tool to help students construct the pieces for their invention.

Teachers leave our workshop course feeling empowered and prepared to implement our innovative curriculum in their classrooms. **But don't take our word for it, see what teachers have said about our workshop:**

"I think one of the things that might be holding the school districts back might be the teachers and administrators thinking, "How do we bring this in successfully?" [Inventionland has] done a phenomenal job of setting up the 9-Step Method that you can follow. We literally were trained a week before we taught it and I walked in very comfortable… The materials are fantastic. The support system was great. Every time I called, I got an answer within a day. It was fantastic, so please don't be intimidated by taking this course on. Be excited about it because it's awesome, and it's going to change your kids."

Eric Stoudnour
Chemistry,
Altoona Area School District

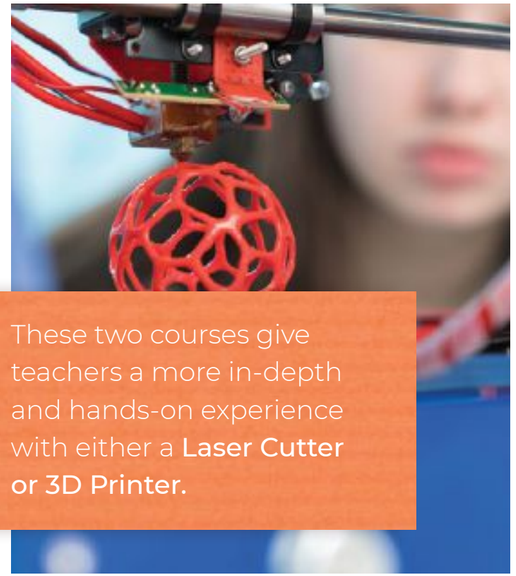
"We really enjoyed these last 3 days! This type of online teacher/student program is so great for our students to experience, build their creativity, find their inner confidence, and understand the business aspect of our ever-changing world."

Amanda Dyer
Grade 3-6 STEM, Integrated Technology,
Kenton City School District

"The training was hands-on and engaging. It let us see firsthand what the kids will experience. I can't wait to see all of the ideas that our students come up with."

Ben Barrett
Technology Education,
Valley Grove School District

3D Printing 101 & Laser Cutting 101



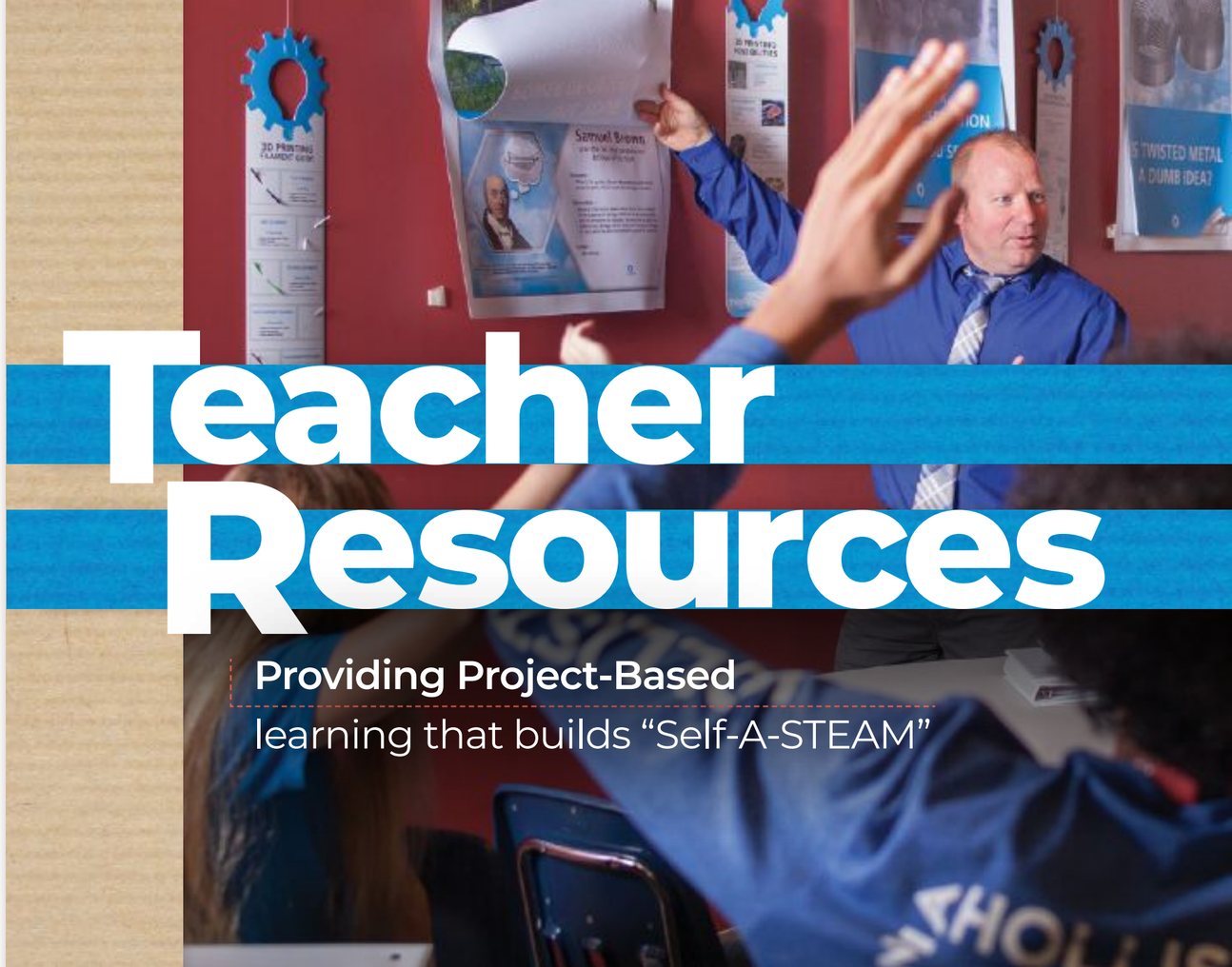
These two courses give teachers a more in-depth and hands-on experience with either a **Laser Cutter or 3D Printer.**

Each teacher will get the opportunity to design and either print or cut a part using one of these machines. Both of these devices may seem complex and intimidating, but taking one of our courses will help simplify the process, allowing you to leave feeling more confident with the equipment and ready to apply innovative knowledge in the classroom setting.

Day of Innovation

Implementing our Innovation Course is a major commitment and we take preparing teachers very seriously. It can seem like a complicated process, but there are also simpler ways to implement project-based learning activities into the classroom. Our one day course allows teachers to learn individual project-based activities that are immediately applicable in the classroom. These activities are suitable for kindergarten through college-aged students and are specifically designed to allow students to be active and engaged in their learning while simultaneously having fun. All of these activities are integrated into our comprehensive curriculum as supportive activities and challenges for team building and deepening learning activities.

We've found that lectures and memorization tactics found in most classrooms don't engage students universally. Some students may be able to learn this way, but visual and physical learners aren't able to reach their full potential. These activities allow students to learn by doing, giving them the opportunity to learn the same concepts in ways that are more suited to all students. They create a unique and imaginative environment where anything is possible. Who would have thought that a student could learn communication skills through a tissue box or collaboration using pipe cleaners? Teachers attending this day long PD activity can earn state teacher continuing ed credit through their district or state ESA.



Teacher Resources

Providing Project-Based

learning that builds "Self-A-STEAM"

Teacher Resources

We have numerous unique and affordable products available that help create a transformative classroom environment. We specialize in designing products that give children an active and sensory-driven classroom experience.

These tactile activities allow students to see, touch and learn by doing, which completely alters engagement within the classroom.

Maker Charts

In existing school makerspaces, these charts break down complex concepts like 3D Printing, Vinyl Cutting, Laser Cutting and Prototyping with specific materials into simple terms students and teachers can comprehend. They are made to hang in your classroom and can be used as an easy reference point while teachers are implementing our curriculum or using technology already available.

Maker Boxes

Students get an in-depth, step-by-step look at the manufacturing of four different materials, so teachers don't have to become the expert in all these areas. Each is accompanied with interactive QR codes that link to videos, so students can watch each metal, fabric, wood and plastic manufacturing process unfold before their eyes. Many academic areas of study can use these including English teachers conducting a writing assignment to help students focus on career exploration. They can watch, listen, write and then present on the careers associated with these four different manufacturing materials to help prepare for future career decisions.

Maker Kits

These are cardboard 2D materials that are pre-cut using a laser cutter. While assembling students watch the material transform from a 2D flat object to a 3D functional object like a pencil holder, clock or locker mirror. When teaching the concepts in engineering, design and more, these kits are inexpensive and become a visual reminder of course concepts either in the classroom, in student lockers or at home.

Peek-A-Boo Posters

We've designed a series of posters that aren't always what they appear. Each poster poses a question and reveals the answer by lifting up a flap at the front. We've created several series of posters, including a series called 'What company started here?' and 'Who is this Innovator?' These designs encourage curiosity and support teachers wanting students to understand their real potential through the journey of others.

Recommended Innovation Lab Starter Kit

Our recommended classroom starter kit includes clouds, trees, wall art, greenscreen and tables. This kit is available for purchase on our website: **inventionlandeducation.com**

Innovation Labs

Providing immersive learning

environments that inspire creativity

Our Innovation Lab services help transform classrooms **into imaginative and stimulating spaces.**

We design original immersive environments to help foster creativity within the classroom and can work directly with the staff using the space to design accordingly.

Our spaces are designed based on the knowledge that certain colors stimulate creativity and reduce stress and during the 2017-18 academic year we were awarded the prestigious Edison Design Bronze for the first ever educational space considered for the competition. We believe that creating an environment that brings technology, innovation, and inspiration together allows student engagement and imagination to soar.

We're able to create a customized design plan based on your budget and the age range of your students.

We're also able to work with your desired architects and construction teams upon request. Even if you're simply adding small elements of color and inspiration, it can vastly improve the classroom environment.

"We are very excited about providing an innovate space and how it will shape the future for our children. This is on the cutting edge of an immersive experience in education."

Dr. Tracy Vitale
Seneca Valley Superintendent of Schools

"Every child in the K-6 building will have the opportunity to work in the space, to create, to innovate, and to be leaders moving forward. The relationship with Inventionland Education has been amazing for us as a district, and we are looking forward to the great opportunities that are waiting to happen with our students in this space."

Dr. Sean McCarty
Seneca Valley Assistant Superintendent

inventionlandeducation.com · 585 Alpha Dr, Pittsburgh, PA 15238
info@inventionlandeducation.com · **1-800-371-6413**

INVENTIONLAND®
EDUCATION