



# Lower Elementary Course Outline

The primary years are a time for students to become enthusiastic about learning as they explore, make discoveries, and imagine new ways to interact with their world. The lower elementary version of Inventionland's course on Real World Inventing will inspire your students with enjoyable challenges, opportunities to express creativity, and relevant, interesting content. And it's presented in a way that any teacher can handle—whether or not you're a do-it-yourself or technology expert!

The main section of the course follows the proven 9 Step Method of inventing as students work in groups to develop their own idea into a product. After that, our "ABCs of Storytelling" modules teach students what makes good storytelling and guide them through telling the story of their own product.

Following is a brief description of the instructional content in each module.

## Getting Started

**History of Inventionland** shows the Disney-like offices where Inventionland staff actually work, including a video tour of the building.

**History of Innovation** contains an extensive collection of inventions and new ideas from ancient to modern times.

**Our Founder's Influences:** Students are introduced to the historic inventing and storytelling impact of three famous Americans: Thomas Edison, Henry Ford, and Walt Disney.

**Character Traits** contains brief descriptions of five desirable personal traits: curiosity, dependability, confidence, determination, and patience.



**"You are coming at teaching my students in such a wonderful and unique way. The fact that you're working on providing for these students the way you are is just awesome!"**

**Kimberly Price - PA Educator**



# The 9 Step Method

## 1. Create and Protect Your Idea

Students are guided in thinking about types of simple innovations they could develop. They also learn the importance of not stealing other people's work and how to prevent others from stealing their ideas.



## 2. Research Your Idea

Students learn how to do Internet research safely and then conduct their own research in a product category that interests them.



## 3. Brainstorm Your Idea

Students learn what brainstorming is and then brainstorm and discuss ideas for the product they will develop. A series of fun challenges help them practice generating and trying out ideas.



## 4. Sketch Your Idea

Students learn how simple shapes can help them sketch their idea, even if they aren't great artists. Videos introduce them to manufacturing processes. They then make their own product sketch.



## 5. Model Your Idea

After some mind-expanding building challenges, students construct their own product model using simple materials. They learn about survey research and conduct their own survey on their product, and they consider various types of product names and their marketing benefit.



## 6. Draft Your Idea

Students review precise measuring skills with a ruler or tape measure and then create technical drawings of their product. If you are into technology, this section can incorporate computer-aided design and even 3D printing of a product model.



## 7. Package Your Idea

Students learn about the different types of packaging and their purposes (such as keeping products from breaking or being easily stolen). They then determine a package design for their product and create a sample from basic materials.







## 8. Communicate Your Idea

8



Students learn about different personality types, how to market products to each type, and the psychological impact of colors. They apply this knowledge to creating a graphic design for their product.

## 9. Put It All Together

Students use everything they've learned to create their final product. This module also contains guidance for students to create a brief presentation or a video about their product. (Or you can extend the curriculum by covering the "ABCs of Storytelling" before students prepare their presentation.)



## E. Telling Your Story

Students apply what they have learned to a different type of storytelling—pitching their product. They learn about three types of pitches and begin to prepare their own.

## F. Presentation Pointers

Students learn about other factors that contribute to an excellent presentation: attire, self-confidence, enunciation, politeness, and getting ready for questions. After this module, students should be fully equipped to develop and deliver their own presentation.



# ABCs of Storytelling

## A to D



The first four steps discuss essential aspects of any good story: (A) setting, (B) characters, (C) conflict and resolution, and (D) plot.

Students examine how these five essential components of stories function and complete creative challenges that incorporate these components.

# 123s of 3D Printing

Many elementary schools have 3D printers. If you and your students have this capacity, that is an awesome way to enhance Real World Inventing—because it enables students to print real-life models!



As a result, our curriculum contains detailed instructions on effective use of your 3D printer, including common pitfalls to avoid.