

**Purpose:**

This workshop will familiarize teachers with the concepts of entrepreneurship and design-thinking ideation by engaging teachers in the very resources that they can utilize with their students to develop a STEM business or commercialization plan.

Through the process of engagement, this workshop will provide instruction and activities to increase teachers' conceptual knowledge of the entrepreneurial mindset, design-thinking, and the relationship between STEM and innovation.

**Objectives:**

*Teachers will: (using the Believe in Ohio Google Classroom)*

- a. build a conceptual base using a process that takes a personally-identified problem through to finding a solution and identifying the underlying STEM concepts in that solution;
- b. be able to explain the design-thinking ideation process;
- c. understand the implications and importance for entrepreneurial and STEM instruction in the context of today's economy and students' future prosperity;
- d. identify Believe in Ohio resources that can be utilized for instruction.

**There are options for earning credit. Please note the requirements for each listed below.**

**To earn 7 Contact hours please follow the itinerary. All work is within the Google Classroom.**

- Complete each assignment in the classroom which includes a Final Wrap-up
- **Respond to video means:** Write a sentence or two that gives the Big Idea. (Note: for examples see the student support sheets in Milepost videos)

**To earn 1 Graduate hour please follow this itinerary within the Google Classroom.** If desiring a Gifted certificate along with grad credit, follow the 15 hour option below.

- Complete each assignment in the classroom which includes a Final Wrap-up
  - **Respond to video means:** Write a sentence or two that gives the Big Idea. (Note: for examples see the student support sheets in Milepost videos)
  - Grad assignment Using both documents from the Design Thinking Course Part 3 Sections
    - *Technologies That Are Changing the World* PDF
    - *Emerging Technologies* PDF
1. Peruse the technology developments provided in each of the 2 documents. Look for topics of interest to you. The documents provide insight across vast fields of technologies and subjects.
  2. After reviewing the brief discussion of the technologies on these pages, choose three, and for each provide a 1-2 paragraph discussion of why the technology development interests you and how you might apply it to develop a product, system, or service in response to a specific solution problem, need, or pain point.

**To earn 15 hours for Gifted Professional Development credit complete:** (following this itinerary within the Google Classroom. If you want grad credit plus gifted, do it all.

*Complete each assignment in the classroom which includes a Final Wrap-up, Same as 7 contact hours.*

**Respond to video means:** Write a sentence or two that gives the Big Idea. (Note: for examples see the student support sheets in Milepost videos)

**PLUS**

**#1** Grad assignment: Using both of the documents from the Design Thinking Course Part 3 Sections

- *Technologies That Are Changing the World* PDF
  - *Emerging Technologies* PDF
1. Peruse the technology developments provided in each of the 2 documents. Look for topics of interest to you. The documents provide insight across vast fields of technologies and subjects.
  2. After reviewing the brief discussion of the technologies on these pages, choose three, and for each provide a 1-2 paragraph discussion of why the technology development interests you and how you might apply it to develop a product, system, or service in response to a specific solution problem, need, or pain point.

CONTINUED REQUIREMENT ON PAGE 2 FOR COMPETENCIES A, B, C.



**#2 Plus: Complete these Gifted Professional Development Reflection Questions**

- a. Explain how the implementation of Believe in Ohio is ideal for your gifted students in terms of how it might be differentiated based on a student's readiness, knowledge, and skill level.
- b. Explain how the implementation of Believe in Ohio serves your gifted students by incorporating advanced, conceptually challenging, in-depth, distinctive, and complex content.
- c. Explain how the implementation of Believe in Ohio provides an extension or replacement of the general curriculum by compacting standards and/or offering alternative assessments and/or projects based on the needs and abilities of your gifted students.



## Itinerary

### Overview of the Believe in Ohio Program

- Watch Teacher Overview Video- 3 min
- Watch How to Create and Assess an Idea using the Believe in Ohio Roadmap- 3 min
- Watch Teacher Walk-through of Google Classroom- 20 min

### Believe in Ohio Resources

- Review documents: Scholarship Opportunity
- Review “Technologies Changing the World” Choose 2-Explain what most interested you in these topics.
- Watch “Videos that show the importance of entrepreneurship” Videos have time listed. Watch both Kaufmann series and at least one more video. **Respond** to videos.

### Milepost 0: Getting Started

- Teacher Quick Look- 1 min
- Key Videos: Are You Ready for the Future? “Why students are asked to do a STEM plan”, “What specifically must students do”. Respond to videos.
- Milepost 0, Videos 1-3 w Student Support Sheet Watch each video and answer the 2 After-watching debrief questions.

### Mileposts 1-3: Problem, Opportunity, Solution

- Teacher Quick Look video – 1 min
- Key Video: “Working through Mileposts 1-3” Respond to video
- Milepost 1-3 Videos 4-6 w Student Support Sheets Watch each video and answer the 2 After-watching debrief questions.

### Design-Thinking/Ideation Mini Course

- Watch Teacher Quick Look – 1 min
- Review Lesson Plan
- Review each PowerPoint Show
- Write to answer: How can this be implemented in your classroom?

### Milepost 4-8- Assessing the Commercial Feasibility of your plan

- Watch Teacher Quick Look- 1 min
- Watch Key Video “Working through Mileposts 1-8” Respond to video
- Milepost Videos 7-13 w Student Support Sheet Watch each video and answer the 2 After-watching debrief questions.
- Review student materials

### Mileposts 9-12

- Watch Teacher Quick Look- 1 min
- Watch Key Video- “Working through Mileposts 9-12” Respond to video
- Review student printable instructional material.

**Complete Final Wrap-up: Respond to the questions:** Explain how the implementation of Believe in Ohio can enhance students’ skills in research, creative thinking and problem-solving. How does Believe in Ohio give relevance to studying STEM subjects? Give an example of how Believe in Ohio can offer students a strong practical foundation of skills toward their future prosperity.

*Additional for these options:*

**Grad assignment** as detailed on page 1 of this syllabus. (12.5 hours)

or

**Grad assignment with Gifted** as detailed on page 1 of this syllabus plus complete the reflection questions, too. (15 hours)

or

**For 15 hours of gifted professional development** note requirements on page 1 of this syllabus. Be sure to complete the Reflections questions on page 1 of this syllabus.