

Purpose:

Believe in Ohio provides the program curriculum in a Google Classroom for teachers. 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 entrepreunerial 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 evaluating their place within the curriculum.

To earn 10 contact-hours (1 CEU) please follow this itinerary 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.

- · 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 Technologies That Are Changing the World PDF ProjectBoard (return to that section in the classroom Milepost 9-12: STEM + Entrepreneurship = Innovation, scroll to locate.)

- Peruse the technology developments provided. Look for a topic of interest to you from across vast fields of technologies and subjects.
- After reviewing the brief discussion of the technologies on these pages, choose <u>one</u>, and 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: (follow this itinerary within the Google Classroom. This is the same as stated above for 1 semester grad credit.)

- · 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)

#1 Grad assignment Using *Technologies That Are Changing the World PDF* in *ProjectBoard* (return to that section in the classroom Milepost 9-12: STEM + Entrepreneurship = Innovation, scroll to locate.)

- Peruse the technology developments provided. Look for a topic of interest to you from across vast fields of technologies and subjects.
- After reviewing the brief discussion of the technologies on these pages, choose <u>one</u>, and 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.

#2 Plus: Complete these Gifted Professional Development Reflection Ouestions

- 1. 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.
- 2. Explain how the implementation of Believe in Ohio serves your gifted students by incorporating advanced, conceptually challenging, in-depth, distinctive, and complex content.
- 3. 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



1. Overview of the Believe in Ohio Program

Watch Teacher Overview of BiO and How to Create and Assess an Idea...

Write to explain: basically, what do students do when they complete a Believe in Ohio project? Review documents: Scholarship Opportunity

2. Intro to Entrepreneurship & Believe in Ohio

Watch both Kaufmann series.

Respond to videos.

1.

2.

<u>Faces of Entrepreneurship</u>: Choose any 3 videos from the 2 documents.

Respond to videos. What is their product, or idea. Is their story inspiring? Why?

1.

2.

3.

Believe in Ohio Program via ProjectBoard

Open the link and the first box, <u>Believe in Ohio</u>
<u>Program Guide</u> Read parts 1 & 2.

Answer: What are your first impressions for the importance of students doing a STEM project such as Believe in Ohio?

3. Milepost 0: Getting Started: Learning about the entrepreneurial mindset.

Milepost 0, Videos 1-3 w Student Support Sheet Watch each video and

Answer the 2 After-watching debrief questions for each video.

4. 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

Milepost Videos 7-13 w Student Support Sheet Watch each video and answer the 2 Afterwatching debrief questions.

Student printable instructional materials:
Build your understanding of the Believe in Ohio process for this PBL experience by reading through the document.

Mileposts 9-12 How it comes together STEM + Entrepreneurship = Innovation

Revisit ProjectBoard, scroll through and review resource documents:
Commercialization operation cost worksheet, financial template, types of investors, templates for various plans and pitch Rubrics: Choose either a Business plan or STEM Commercialization plan rubric:
How does the rubric match criteria that you use in your classroom for a similar project.
Does the rubric meet the needs of assessment by your or your school's standards?

Sample student projects: Choose a project and briefly provide feedback on how it accomplishes the goals of a student learning about entrepreneurship and the entrepreneurial mindset.

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.

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Grad assignment as detailed on page 1 of this syllabus.

For 15 hours of gifted professional development complete the Reflections questions on page 1 of this syllabus.