

RESOURCES AVAILABLE TO TEACHERS WHO ARE HAVING THEIR STUDENTS DEVELOP A STEM COMMERCIALIZATION PLAN



Click on the links below to preview much of the content that the *Believe in Ohio* program makes available to STEM high school teachers who choose to have their students develop a STEM Commercialization Plan for entry into an in-school awards competition.

To have their students participate in the *Believe in Ohio* Local High School Program, a teacher needs to complete a [Believe in Ohio Memorandum of Understanding](#) (MOU) and submit it to the Ohio Academy of Science prior to the date(s) shown on the form. Once that is done, the teacher will receive access to their own, personal, Google Classroom, which will include all of the resources shown below and more. Submitting the MOU will also qualify the teacher to receive up to \$2,500 in grant funding for student competition awards, and up to \$595 in participating teacher support grants. [Please see the MOU for details.](#)

Overview of *Believe in Ohio* Program

- **Quick Look at the *Believe in Ohio* Program**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Overview-of-Program.mp4>
- **Teacher Walk Through of Google Classroom**
 - Link: <https://youtu.be/q41UEb2VAy4>

Overview of *Believe in Ohio* Curriculum Resources:

- **Quick Look at Overall *Believe in Ohio* Curriculum Resources**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Quick-Look-Curriculum.mp4>
- **Ohio Roadmap to Future Jobs & Prosperity**
 - Link: <https://believeinohio.org/wp-content/uploads/2020/08/BiO-Plan-book.pdf>
- ***Believe in Ohio* STEM Advocates Answer Teacher FAQs**
 - Link: <https://mk0believeinohioil21qn.kinstacdn.com/wp-content/uploads/2021/09/Believe-in-Ohio-Advocates-Answer-Teacher-Questions-Sept-7-2021.pdf>
- **Technologies Changing the World**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Technologies-Changing-the-World.pdf>
- ***Believe in Ohio* School Year 2020-2021 Activity Timeline**
 - Link - <https://mk0believeinohioil21qn.kinstacdn.com/wp-content/uploads/2021/09/BiO-Graphic-Activity-Timeline-for-2021-2022-Sept-27-2021-1.pdf>
- **How to Create and Assess an Idea Using the *Believe in Ohio* Roadmap**
 - Link - <https://www.believeinohio.org/wp-content/uploads/2020/08/Create-and-Assess.mp4>
- ***Believe in Ohio* Sample Science Unit Plan**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/BiO-sample-Science-Unit-Plan.pdf>
- **Science Standards Relevant to *Believe in Ohio***
 - Link - <https://believeinohio.org/wp-content/uploads/2020/07/Science-Education-Standards-Relevant-to-Believe-in-Ohio.pdf>

Milepost 0 – Getting Started:

- **Quick Look – Milepost 0 – Getting Started**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Quick-Look-Milepost-0.mp4>
- **Key Video Instructional Resources for Students:**
 - Video – Are You Ready for the Future?
 - Link - <https://youtu.be/zznfNwFe8X4>
 - Video 1 – Why students are asked to do a STEM Plan
 - Link - <https://www.youtube.com/watch?v=cmK3lYXXbSo&feature=youtu.be>
 - Video 2 – What, specifically, students are asked to do to develop their STEM Plan
 - Link - <https://www.youtube.com/watch?v=qwYw46-58w0&feature=youtu.be>
- **Inspirational & Explanatory Resources**
 - Videos to inspire students to think about their future

- Link - <https://believeinohio.org/wp-content/uploads/2020/08/Videos-teachers-to-inspire-students-to-think-about-their-future.pdf>
 - Videos that explain the importance of Entrepreneurship & the American Free Market System
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Videos-that-explain-Entrepreneurship-the-American-Free-Market-System.pdf>
 - Patent & Intellectual Property Discussion & Videos
 - Link - <https://believeinohio.org/wp-content/uploads/2019/08/BIOPatentDiscussion.pdf>
- **Additional “Roadmap” videos for students (6-10 min):**
(Accompanying Teacher Support Sheets & Learning Checks Also Included in Google Classroom)
 - Milepost 0 – *The Challenge of the Future*
 - Link - <https://www.youtube.com/watch?v=EMIXgE1AT-I>
 - Milepost 0 – *Introduction to Entrepreneurship*
 - Link - <https://www.youtube.com/watch?v=DTtvFtKh9X8>
 - Milepost 0 – *Finding Problems, Seeing Opportunity*
 - Link - <https://www.youtube.com/watch?v=HYIiz3H-hIQ>

Mileposts 1-3 – Problem, Opportunity, Solution, Technology:

- **Quick Look – Milepost 1-3 - Problem, Opportunity, Solution, Technology**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Quicklook-Milepost-1-3.mp4>
- **Key Video Instructional Resource for Students:**
 - Video 3 – Working Through Mileposts 1-3
 - Link - <https://www.youtube.com/watch?v=mzAqUpNv7Qk>
- **Printable Instructional Materials**
 - How to Navigate the Believe in Ohio STEM Plan Instructional Roadmap – Mileposts 1-3
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/How-to-Navigate-Mileposts-1-3.pdf>
 - Student Step by Step Instructions for Determining the Commercial Feasibility of Your Plan & Developing the Plan Itself
 - Link - <https://believeinohio.org/wp-content/uploads/2019/09/Commercial-Feasibility-of-Plan.pdf>
 - Printable Mileposts 1-8
 - Link - <https://believeinohio.org/wp-content/uploads/2019/10/Roadmap-milepost-1-8-worksheet.pdf>
- **Additional “Roadmap” videos for students (6-10 min):**
(Accompanying Teacher Support Sheets & Learning Checks Are Also Included in Google Classroom)
 - Milepost 1 – Finding Problems, Seeing Opportunities
 - Link – <https://www.youtube.com/watch?v=ulXQHWgT9oI>
 - Milepost 2 – Proposing Solutions
 - Link – https://www.youtube.com/watch?v=R_loeT195T4
 - Milepost 3 – Using Technology to Execute a Solution
 - Link – <https://www.youtube.com/watch?v=Cues9Jb345c>

Recommended Design Thinking / Ideation Mini-Course:

- **Quick Look – Recommended Design Thinking / Ideation Mini-Course**
 - Link – <https://youtu.be/a4iF8lbYVgY>
- **Design Thinking Lesson Plan**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Design-Thinking-Lesson-Plans.docx>
- **Part 1 - Believe in Ohio Welcome – Are You Ready for Your Future?**
 - Link - <https://youtu.be/ZHWnCOZsV5c>
- **Part 1 – Introduction to Design Thinking**
 - Link - <https://youtu.be/qigUkuNUwBw>
- **Part 1 – IDEO Shopping Cart**
 - Link - <https://www.youtube.com/watch?v=M66ZU2PClM>
- **Part 1 – Design Thinking Exercise**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/DT-Exercise.mp4>
- **Part 2 – Empathize & Define (Part 1)**

- Link - <https://www.youtube.com/watch?v=MvsXTzQqH0O>
- **Part 2 – Empathize & Define (Empathy Video)**
 - Link - <https://www.youtube.com/watch?v=HznVuCVQd10>
- **Part 2 – Empathize & Define (Part 2)**
 - Link - <https://www.youtube.com/watch?v=SMpnt9jLUw0>
- **Part 3 – Student Discovery – STEM Innovation & Entrepreneurship at Ohio Colleges & Universities**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/STEM-Innovation-Entrepreneurship-at-Ohio-Colleges-Universities.pdf>
- **Part 3 – Student Discovery – Emerging Technologies That Are Changing the World**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Technologies-Changing-the-World.pdf>
- **Part 4 – Introduction to Brainstorming – Ideation**
 - Link - <https://www.youtube.com/watch?v=hJmVNCWEhO4>
- **Part 4 – Stanford Life Design Lab – Introduction to Brainstorming**
 - Link - https://www.youtube.com/watch?v=iS_GUz9IFko

Mileposts 4-8 – Assessing the Commercial Feasibility of Your Plan:

- **Quick Look – Mileposts 4-8 – Assessing the Commercial Feasibility of Your Plan**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Quick-Look-Milepost-4-8.mp4>
- **Key Video Instructional Resource for Students:**
 - Video 4 – Working Through Mileposts 1-8
 - Link - <https://www.youtube.com/watch?v=1u9tp28LyWQ&feature=youtu.be>
- **Printable Instructional Materials**
 - How to Navigate the Believe in Ohio STEM Plan Instructional Roadmap – Mileposts 1-8
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/How-to-Navigate-Mileposts-1-8.pdf>
 - Student Step by Step Instructions for Determining the Commercial Feasibility of Your Plan & Developing the Plan Itself
 - Link - believeinohio.org/wp-content/uploads/2019/09/Commercial-Feasibility-of-Plan.pdf
 - Printable Mileposts 1-8
 - Link - <https://believeinohio.org/wp-content/uploads/2019/10/Roadmap-milepost-1-8-worksheet.pdf>
- **Additional “Roadmap” videos for students (6-10 min):**
(Accompanying Teacher Support Sheets & Learning Checks Are Also Included in Google Classroom)
 - Milepost 4 – Who Can Benefit From Your Solution?
 - Link - <https://www.youtube.com/watch?v=eJVZzdhaFUo>
 - Milepost 5 – Who Are Your Competitors?
 - Link - <https://www.youtube.com/watch?v=pvVcCLZlfd4>
 - Milepost 6 – What Value Do You Bring to the Market
 - Link - https://www.youtube.com/watch?v=c_fc9yh9b70
 - Milepost 7 – Will Your Idea Generate Revenue?
 - Link - <https://www.youtube.com/watch?v=fBxHoAICHGc>
 - Milepost 8 – What Will It Cost to Get Started?
 - Link - <https://www.youtube.com/watch?v=bBq6NfdxmoQ>
 - Milepost 8 – What Are the Operating Costs?
 - Link - <https://www.youtube.com/watch?v=-rEoUCAjwXU>
 - Traffic Light – Does Your Idea Get a Green Light?
 - Link - <https://www.youtube.com/watch?v=59NGv3a2iOs>

Mileposts 9-12 – Developing Your STEM Commercialization Plan:

- **Quick Look – Milepost 9-12 – Developing Your STEM Commercialization Plan**
 - Link - <https://believeinohio.org/wp-content/uploads/2020/08/Quick-Look-Milepost-9-12-Commercialization-Plan.mp4>
- **Key Video Instructional Resource for Students:**
 - Video 5c – Working Through Mileposts 9-12 (For STEM Commercialization Plans)
 - Link - <https://www.youtube.com/watch?v=twSUxmuVDbw>
- **Printable Instructional Materials**
 - How to Navigate the Believe in Ohio STEM Plan Instructional Roadmap – Mileposts 9-12

- Link - <https://believeinohio.org/wp-content/uploads/2020/08/Navigating-Mileposts-9-12.pdf>
- Student Step by Step Instructions for Determining the Commercial Feasibility of Your Plan & Developing the Plan Itself
 - Link - <https://believeinohio.org/wp-content/uploads/2019/09/Commercial-Feasibility-of-Plan.pdf>
- Student Instructions for Writing and Formatting Their STEM Plan
 - Link - <https://believeinohio.org/wp-content/uploads/2019/09/Student-Instructions-for-Writing-and-Formating-Their-STEM-Plan.pdf>
- STEM Commercialization Plan MS Word Template
 - Link - https://believeinohio.org/wp-content/uploads/2019/09/STEM_com_plan_template-Updated-Sept-25-2019.doc
- **Examples of past 'highly rated' STEM Plans for student review**
 - Link - <https://believeinohio.org/highly-rated-student-plans/>
- **STEM Commercialization Plan Judging Card**
 - Link - <https://believeinohio.org/wp-content/uploads/2019/09/Judge-card-Commercialization-plan.pdf>