State of Innovation: Responding to COVID-19

How to Use

This guide is intended to support you in adapting the State of Innovation's "Responding to COVID-19" Challenge case into a lesson plan to implement with youth. It includes background information on the case, problem solving questions for youth to work on, and suggested activities to use with youth. It also explains how you can get support during the Challenge, including helping youth connect with industry leaders throughout the Challenge.

Challenge Case

Keeping our communities healthy during the COVID-19 pandemic is a top priority for Washington State. Social distancing has saved lives during the pandemic, but it can also leave people feeling isolated and anxious. People want to know the right things to do to be safe from COVID-19, but it's not always easy to tell what information is accurate, or how you should act on information once you have it. The state is looking for your help in solving one of two major challenges related to keeping our communities safe during the COVID-19 pandemic. The state is looking for your help in solving two major challenges related to keeping our communities safe during the COVID-19 pandemic.

Your challenge is to help the state figure out how to best:

1. **support the mental health of Washingtonians while practicing social distancing - especially teens and elders**
2. **ensure people have accurate, actionable, accessible information about COVID-19, while still respecting individual privacy**

Watch the [Responding to COVID-19 Challenge case video](#) for a brief overview of the topics and themes covered by this Challenge case.

Career Paths

- Health Sciences
- STEM
- Journalism & Communications

Learning Objectives

Youth will be able to…

- Solve real problems around public health currently facing Washington State
- Analyze social issues impacting the public and mental health of their local communities
- Evaluate emerging solutions to solving health crises driven by the COVID-19 pandemic
- Develop new proposals and prototypes to improve Washington's public health systems

Implementation

The resources presented in this guide are designed to be used flexibly based on the needs of youth and your classroom. You are invited to develop lesson plans of your own in alignment with your course, leveraging one or more of the problem solving questions below or weaving the public health theme into your own curriculum. You are also encouraged to use or build on lesson plans shared by other Washington State educators - see the "Support" section of the guide for information on how to access the State of Innovation Lesson Bank on OER Commons.

Structure and Timing

Participation in the State of Innovation Challenge has no strict time expectations or requirements. Youth can meaningfully engage with this Challenge with as little as one hour, or as much as several months. Youth are invited to work on this challenge individually or in teams of any size.

If you have **one class period**, you could:

- kick off the Challenge case with the [Responding to COVID-19 Challenge video](#)
- present one of the problem solving questions to youth with a brief class discussion
- break youth into small groups to each read one of the provided background information resources
- have youth summarize their findings to the class, highlighting any ideas they have to build on the existing solution
- **Suggested end product**: A quick poster or slide deck

If you have **one week of classes**, you could:

- kick off the Challenge case with the [Responding to COVID-19 Challenge video](#)
- present an overview of each problem solving question and allow small groups of youth to each choose one question to focus on
- have each group explore the background information resources provided for their question

- ask each group to develop a novel solution to their problem in the form of a lightweight design proposal, building on the successes and shortcomings of existing solutions in that space
- provide a space for groups to each present their solutions to the class with ample time for discussion and peer feedback
- **Suggested end product**: A design proposal document or poster

If you have **one month of classes**, you could:

- kick off the Challenge case with the [Responding to COVID-19 Challenge video](#)
- present an overview of each problem solving question and allow small groups of youth to each choose one question to focus on
- have each group explore the background information resources provided for their question, and additionally find several research sources of their own
- ask each group to develop a novel solution to their problem in the form of a robust prototype, model or sales pitch
- run weekly design reviews with ample time for discussion and peer feedback
- connect youth with relevant industry leaders for authentic feedback
- help youth connect with relevant end users for user-oriented collaborative design opportunities
- **Suggested end product**: A functional prototype or business plan

Project Submissions

Youth can submit projects in a wide range of formats to the Challenge. Once you've selected the project format below that works best for you/your group, please review the submission guidelines in the [Appendix](#) and submit your project through the submission portal at www.innovationwa.org.

Problem Solving Questions

Below are some suggested questions for youth to tackle in this Challenge case. You can choose to use one or more of these questions, or you can create a problem of your own choosing that is related to the Challenge case.

Theme	Problem Solving Question
Elder Isolation	Design a service or tool the state could use to help alleviate isolation for older adults during the pandemic.
Teen Mental Health	Design a service or tool that would help people in your age group stay connected to each other socially and support their mental health while also protecting themselves and others from being exposed to COVID-19.

Contact Tracing	Design a solution to ensure people are notified about their exposure to COVID-19 while still protecting their privacy.
Fighting Misinformation	How could the state help ensure that residents can identify accurate information about COVID-19 online? How should the state share information so that the most accurate information gets to people that need it?
Understanding Information	Design a public information campaign, community service, or service-learning project that provides accurate information about COVID-19 for your community.
Testing Protocol	Design a testing protocol for COVID-19 that is based on your community needs.

You can find more information on each problem solving question below, including additional context and links to background information in the form of articles, videos 🎥 and data presentations 📊.

Elder Isolation

Older adults are one of the populations at high-risk of developing a serious illness if they are infected with COVID-19. Because of this risk, many older adults are sheltering at home, and are not able to travel, see loved ones, or engage with their community during the pandemic.

Design a service or tool the state could use to help alleviate isolation for older adults during the pandemic.

As you plan your solution, consider how it will help the state serve people who do not have internet at home, people who do not have or cannot use smart phones, and people who speak languages other than English.

Background Information

- 8 tips to help seniors stay mentally acute in isolation - USA Today
- Is extended isolation killing older adults in long-term care? - AARP
- Isolated the elderly is bad for their health - Wall Street Journal
- Project VITAL will connect Florida seniors to their families through virtual technology - Florida Department of Elder Affairs
- Seattle-area letter drive sends message to seniors isolated due to coronavirus: You're not alone - Seattle Times
- There's no cure for COVID-19 loneliness, but robots can help - Wired
- The unspoken COVID-19 toll on the elderly: loneliness - ABC News 🎥

Teen Mental Health

COVID-19 has disrupted the routines of many young people in Washington State - isolating them from friends, school, sports, and other activities. youth have less access to supportive adults like school counselors, teachers, coaches, and other mentors. The state is concerned about an increase in anxiety and depression in young people because of social distancing. Even in places where teenagers have been able to return to school and other in-person activities, we want to ensure that everyone interacts safely and that they continue to protect themselves from unnecessary exposure and risk.

Design a service or tool that would help people in your age group stay connected to each other socially and support their mental health while also protecting themselves and others from being exposed to COVID-19.

Here are a few ideas to inspire you:

- Something that helps them stay connected while social distancing
- Something that reminds them to take precautions when interacting in person
- A new game or activity that encourages social connections without creating ways for the virus to spread

Background Information

- [Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown - NIH](#)
- [Comics that helped prevent teen depression before pandemic now targeting increased risks because of COVID-19 - Chicago Tribune](#)
- [Coronavirus anxiety: How to cope - Teen Vogue](#)
- [King County community health indicators - King County](#) 📊
- [The first data on COVID-19 and teen's mental health is here, and it's not good - Huffington Post](#)
- [How coronavirus racism infected my high school - NY Times](#) 🎥
- [Teens across the country share their mental health struggles during COVID-19 - People](#)

Contact Tracing

When someone tests positive for COVID-19 it is important for them to notify everyone they have recently been in contact with so that those people can be tested before they potentially spread the virus further. This is called contact tracing, and while it is important in fighting the spread of coronavirus, it has been difficult to implement for many reasons. Some solutions that are being tried include expanding training for people doing contact tracing and developing an app to help trace contacts more quickly. Contact tracing, especially using digital technology, has also raised concerns about personal privacy.

Design a solution to ensure people are notified about their exposure to COVID-19 while still protecting their privacy.

- Are there community-based ways to do contact tracing that don't require storing electronic data?
- How would you conduct contact tracing in places where people do not have access to the internet, a smartphone, and/or speak languages other than English?

Background Information

- [A contact-tracing app that helps public health agencies and doesn't compromise your privacy - UW](#)
- [Big contact tracing study shows role of kids and superspreaders in coronavirus pandemic - CNN](#) 🎥
- [Data privacy laws collide with contact tracing efforts; privacy is prevailing - Reuters](#)
- [Despite army of workers, coronavirus contact tracing in Washington state is challenging - Seattle Times](#)
- [New York launches coronavirus contact tracing app as cases rise in hot spots - CNBC](#)
- [UW launches online training for contact tracing to help fight COVID-19 - UW](#)
- [What is contact tracing? infographic - WA Department of Health](#)
- [What is contact tracing? Here's how it could be used to help fight coronavirus - Time](#)

Fighting Misinformation

Washingtonians get their information about the pandemic from lots of sources, including online, from friends and neighbors, or from newspapers, TV, etc. One of the challenges of public health during the pandemic is ensuring people receive accurate information. There is accurate information available on government websites, but not everyone checks those sources regularly.

How could the state help ensure that residents can identify accurate information about COVID-19 online? How should the state share information so that the most accurate information gets to people that need it?

Background Information

- [Coronavirus misinformation, and how scientists can help to fight it - Nature](#)
- ['Hundreds dead' because of Covid-19 misinformation - BBC](#)
- [Immunizing the public against misinformation - WHO](#)
- [Social media contributes to misinformation about COVID-19 - Northwestern](#)
- [UW fights viral misinformation - UW](#)
- [Washington State's COVID-19 information portal - WA DOH](#)

Understanding Information

Information about COVID-19 is not always easy to communicate. Not everyone has the time or ability to follow the news, and the information that we need to communicate about public health can be complicated and technical.

Design a public information campaign, community service, or service-learning project that provides accurate information about COVID-19 for your community.

- How would you communicate the information?
- What medium would it be in?
- How would you reach people of different ages, people who speak different languages? Where would you place the information - on an app? On TV? On posters? On the radio?
- Who would communicate that information?
- Would you train community members to share the information?

Background Information

- [CDC's COVID-19 information portal - CDC](#)
- [COVID-19 ads - Ads of the World](#) 🎥
- [King County community health indicators - King County](#) 📊
- [Talking with children about COVID-19 - CDC](#)
- [Washington State's COVID-19 information portal - WA DOH](#)
- [WHO's COVID-19 information portal - WHO](#)

Testing Protocol

An important part of fighting COVID-19 is ensuring that people have easy access to testing, and quick results that will tell them if they need to quarantine before spreading the virus to others.

Design a testing protocol for COVID-19 that is based on your community needs.

- When would testing be available?
- Where would you ideally place testing?
- How would people get there - by car? On foot?
- Who would do the testing and how would they be trained? How would people get alerted about their testing results?
- Where would people go if they test positive but do not have a safe place to be quarantined?

Background Information

- [A "heroic" COVID-19 testing campaign in Thailand - IFC](#)
- [COVID-19 data dashboard - WA DOH](#) 📊
- [COVID-19 testing overview - CDC](#)
- [Drive-thru food distribution paired with COVID-19 testing - KUOW](#)
- [How accurate are rapid COVID-19 tests? - The Atlantic](#)
- [Seattle COVID-19 testing portal - Seattle](#)
- [Testing for COVID-19 - WA DOH](#)

- [UW announces COVID-19 testing program for students, faculty and staff across all three campuses - UW](#)
- [Why is COVID-19 testing lagging in Washington? - KING](#) 🎥

Support

Industry Leader Engagement

Your class will have multiple opportunities to engage with relevant industry leaders during the Challenge period. These interactions will take the form of pre-scheduled meetings with members of the public health industry to build on themes related to the Challenge case, learn about career pathways within the industry, and to get feedback on youth work.

The schedule for these sessions will be available on the [State of Innovation website](#). Be sure you are signed up for the [State of Innovation Outreach list](#) to receive updates as new sessions are added. All sessions will be recorded and posted on the State of Innovation website.

Office Hours

During the Challenge period, you may request one on one support from a member of the State of Innovation team. To schedule office hours, please visit [this link](#) to find a time that works well for you. You can get help with lesson planning, using any of the provided resources, or technical assistance with OERCommons or the youth response forum.

OER Commons

A wealth of complete lesson plans developed for this Challenge case are available in the **[State of Innovation group at oercommons.org](#)**, a platform for open educational resources. On this website, you will find remote-friendly lessons tailored to [middle school classrooms](#), [high school classrooms](#) and [Open Doors classrooms](#).

Are you willing to share a lesson plan you've developed for this Challenge case with other local educators? Please upload your resources using the `Contribute to this Group ▼` button on the State of Innovation OERCommons page.

In addition to helping to build a robust lesson bank, the most creative lesson ideas uploaded to OERCommons will be recognized at a celebratory statewide event at the conclusion of the Challenge.

Standards

Due to the flexible nature of the Challenge, there are a great number of standards that may apply to your specific implementation. If you are looking for standards with which to align your implementation, you may find the following sources from OSPI helpful.

CTE Standards

- 21st Century Leadership Skills
- Program of Study, Career Clusters, and Career Pathways
- Program Standards

Subject Area Standards

- [Arts Learning Standards](#)
- [English Language Arts Standards](#)
- [Environmental and Sustainability Learning Standards](#)
- [Mathematics Learning Standards](#)
- [Science Learning Standards](#)
- [Social Studies Learning Standards](#)

Appendix: Submission Guidelines

Disclaimer: Participating youth and their teachers or adult advisors are responsible for securing all necessary parental permissions and/or waivers prior to submitting a Challenge solution.

Nano Project

- Up to 2 minute video on [Flipgrid](#) using one of the followings submission links:
    - [The Food Chain Flipgrid](#)
    - [Responding to COVID-19 Flipgrid](#)
    - [Our Communities after COVID-19 Flipgrid](#)
- If you don't have access to Flipgrid, you can also upload a video to Vimeo or Youtube and email a short written solution.

Flipgrid Privacy Notice

Flipgrid submissions are publicly accessible. Once approved by the project team, your Flipgrid video can be viewed by anyone with a link to the Flipgrid community page. Do not share personal identifiable information such as your last name, name of your school, address, etc. in your Flipgrid video.

Flipgrid videos will be reviewed for approval by the project team prior to posting on the community page. Videos containing personal identifiable information, as well as videos containing discriminatory, racist, offensive, obscene, inflammatory, unlawful or otherwise objectionable statements, language or content will be rejected.

Video Guidance

- In your video, give your first name *only* -- this will protect your privacy
- Say which case you're working on
    - The Food Chain
    - Our Communities During COVID-19
    - Our Communities After COVID-19
- State the problem you're trying to solve

- Give your answer - in your own words, what do you think the solution should be? Your answer should:
  - Reference the case video or at least one of the research links provided for the problem
  - Explain what this solution would look like if it was used in your community. Who would it help and why?

Micro Project

Upload through the [Submission Portal](#) in one of the following formats:

- Submit a video of up to 5 minutes that demonstrates your solution -- this includes a music video -- you can upload your video to Youtube or Vimeo and submit a link through the project website.
- Submit a short essay narrating your solution of up to 2 pages (middle school) or up to 4 pages (high school).
- Write an editorial explaining your solution and arguing why the state should support your solution -- if possible, submit your editorial to a local or school newspaper for publication.
- Submit a drawing or comic that describes your solution.
- Create a short research project around the problem-solving prompt. Create a hypothesis, write a research plan for how you will collect data (example: 2-3 questions you will ask community members about the issue), go out and collect the data, and submit a 1-2 page report or a slide deck with your research plan and an analysis of your findings.
- Create an elevator pitch for a business or nonprofit entity that implements your solution. For your pitch you can:
  - Create a slide deck (Powerpoint, Google Slides, Keynote, etc.) or short narrative (maximum 2 pages) explaining what your proposed business is, what problem it solves, and how.
  - Record yourself giving the pitch, as if you were talking to the state government or other potential investors about supporting your solution -- upload your pitch to Youtube or Vimeo and include a link in your slide deck.

Macro Project

Upload to the [Submission Portal](#) in one of the following formats:

Creative Project
- Write and record a podcast episode, song, or play about your solution. Record and submit your performance or podcast episode.
  - Submit a link to your video or podcast through the project website.

Create a model
- Build a physical model of your solution. Submit a 1-3 page description with photographs of your project.

Research Project
- Create a research project around the problem-solving prompt. Create a hypothesis, write a research plan for how you will collect data, go out and collect the data, and submit a 3-5 page report or a slide deck with your research plan, an analysis of your findings, and a recommendation for next steps the state could take based on your research.

Computer Program or App
- Create an app or computer program for your solution. Submit at 1-3 page report about your app/program including:
  - What it does, and who it helps
  - How you developed it and why
  - Any links demonstrating your app or program

Service Project
- Create a service project around your solution. Submit a 1-3 page report of your project, describing:
  - What the project was and who you were helping
  - Did you partner with any other community organizations for your project? If so, describe what they do in the community
  - The length of the service project -- including how long it took you to prepare for and complete the project
  - Why you chose this project and what you learned from the process
  - What you think the state should do about the issue you focused on in your project going forward

Business Plan
- Create a business plan for a business that implements your solution. This can be an imaginary business or based on a real business in your community, but you must create the business plan yourself. Your business plan should include:
  - 1-3 page description of your business plan
  - Staff and customer safety plan for operating safely during COVID-19, including compliance with all state and local public health rules
  - Projected budget for your business
  - Sample menu for food, service, or merchandise offering
    - Optional -- Actually create the food item, service, or merchandise for your business. Photograph and describe the final product
  - Drawings of the physical space of your business (if physical)
  - Marketing plan for your business

Challenge Submission Criteria

We will recognize some of the most creative solutions submitted to the Challenge at our closing event in spring 2021. We'll be looking for solutions that meet most of the following criteria.

We are looking for solutions that are…	That means the solution shows us...
Creative	Original ideas or your personal spin on existing ideas.
Future focused	What isn't happening yet but that you think should be happening.
User focused	Who will use this solution? What do you know about them and how do you know they would benefit from your solution?
Implementable	How we can use the tools we have in real life to implement this solution -- unfortunately the Avengers are busy, we checked. Think about how you could use state and city budgets, support from business or philanthropy, donations or volunteer support from communities, etc. to accomplish your goals.
Reflective of you	How does your personal identity and your experiences shape the way you see the problem?
Reflective of your community	How are the people around you -- your family, friends, teachers, bosses, teammates, coworkers -- impacted by the problem? How will the solution you propose impact them?
Equitable	You've thought about how this problem impacts people of different races or ethnicities, genders, abilities, or income in different ways. How does your solution help address those different impacts?
Accessible	Is this a solution that could be used by a person with disabilities? Someone who speaks a language other than English? A person living in a rural area? In an urban area? An elderly person? A person with kids? What about a person who doesn't have access to the internet or a computer?