State of Innovation: Our Communities After COVID-19

How to Use

This guide is intended to support you in adapting the State of Innovation's "Communities After 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

The COVID-19 pandemic will not last forever, but it has changed the way of life for nearly all Washingtonians. Our buildings, public spaces, homes, and communities are designed for our pre-COVID-19 world, but we anticipate that we will need to maintain some level of social distancing in our communities and buildings for several years in the future. We want to figure out how we can create a healthy future that still allows us to stay connected as a community.

Your challenge is to help the state imagine how we could redesign our buildings, public spaces, homes, and/or communities to allow for both social distancing and community connections. How can we help Washington build back from the pandemic in a healthier, more resilient, and more sustainable way?

Watch the Communities After COVID-19 Challenge case video for a brief overview of the topics and themes covered by this Challenge case.

Career Paths

- Architecture and Construction
- Business and Marketing
- Distribution and Logistics
- Human Services
- Transportation

Learning Objectives

Youth will be able to…

- Solve real problems around rebuilding communities currently facing Washington State

- Analyze social and logistical issues impacting their local communities
- Evaluate emerging solutions to rebuilding communities after the COVID-19 pandemic
- Develop new proposals and prototypes to rebuild Washington's economy and infrastructure

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 rebuilding 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 Communities After 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 Communities After 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 Communities After 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
Housing	As we plan for the future - what are some strategies cities or towns could pursue to ensure everyone has a safe place to live?
Urban Centers	How would you design an urban center that serves the needs of our communities after COVID-19?
Redesigning Schools	How would you redesign a classroom, school, or educational experience (e.g. school day schedule, method of learning delivery -- virtual, online, etc.) to minimize the risk of COVID-19 infection and maximize effective learning for students?
Safe Factories and Worker Safety	Imagine you were in charge of a manufacturing business in your community. How would you keep workers safe while ensuring operations continued smoothly?

Climate Change and Wildfires	Design a community to lower the risk that people, homes, and businesses face from wildfires.

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 📊.

Housing

COVID-19 has really shown how important having a safe, clean place to live is not just for individuals but for the health of our entire community. Many cities have come up with creative ways to quickly house people - including building tiny house villages, creating modular housing, placing people in hotels or motels, changing the way they design homeless shelters, creating eviction moratoriums, and increasing access to affordable housing.

As we plan for the future - what are some strategies cities or towns could pursue to ensure everyone has a safe place to live?

- Are there innovative types of housing we should consider building or building more of?
- How can communities help inform these decisions?

Background Information

- $98 million allocated to Washington state for homeless protections against coronavirus - KING 🎥
- A colorful 'tiny house village' for youth is opening in Oakland - The Oaklandside
- COVID-19 outbreak among three affiliated homeless service sites - CDC
- Plum Street Village residents say it offers a reprieve, not a solution to homelessness - The Olympian 🎥
- Seattle fast-tracks tiny house village for homeless amid coronavirus outbreak - KING 🎥
- Tiny house village inside old Kmart could shelter 200 people - Minnesota Reformer
- Washington Homelessness Statistics - USICH 📊

Urban Centers

The downtown areas of most Washington cities have been designed to support large populations of visitors and workers with office buildings, restaurants, hotels, parks, attractions, concert venues, sporting arenas, and housing. After COVID-19, we may not use these spaces in the same way - for example, workers who are working from home may not return to work in large office buildings in the same numbers.

How would you design an urban center that serves the needs of our communities after COVID-19?

Would you repurpose existing infrastructure (office buildings, restaurants, parks, transportation, etc.), and if so, how?

Background Information

- COVID-19: is working from home really the new normal? - The Economist 🎥
- How experts are rethinking the workplace - National Geographic
- How the coronavirus recovery is changing cities - Bloomberg
- How to design a post-pandemic city - Bloomberg
- Redesigning the COVID-19 city - NPR
- Redesigning the office for the next 100-year flu - NPR

Redesigning Schools

Finding a safe way to reopen schools so students can learn in person instead of online is one of the state's top priorities. But school buildings are not necessarily designed to allow students and teachers to safely learn during a pandemic. Some architects are beginning to re-imagine how schools could be designed in the future to provide better health and safety and maybe better learning environments.

How would you redesign a classroom, school, or educational experience (e.g. school day schedule, method of learning delivery -- virtual, online, etc.) to minimize the risk of COVID-19 infection and maximize effective learning for students?

- Should it be a virtual classroom?
- Should it be blended - virtual and in-person?

Background Information

- 6 classroom layouts to maintain social distancing - Fanning Howey
- Enrollment is dropping in public schools around the country - NPR
- Parents gamble on virtual schools amid coronavirus closures - Seattle Times
- Reopening American: Strategies for safer schools - American Institute of Architects
- Washington aims for improved virtual learning as classes begin - MyNorthwest
- What back to school might look like in the age of COVID-19 - NY Times
- Will coronavirus prevention have positive long-term impact on classroom design? - Education Dive

Safe Factories and Worker Safety

Manufacturing is an essential business in Washington state and it cannot usually be done from home - people who work in manufacturing need access to tools, equipment, materials, and working conditions that can only be found in a manufacturing business.

Imagine you were in charge of a manufacturing business in your community. How would you keep workers safe while ensuring operations continued smoothly?

- What protective equipment should workers wear?
- What protocols should you adopt to allow for greater distancing between employees?
- Will you test employees regularly to ensure they are not infected, and if so, how?
- Look at manufacturing businesses in your community for examples

Background Information

- COVID-19 guidance for the manufacturing industry workforce - OSHA
- COVID-19: How to reimagine work for factories and distribution centers - EY
- Factory workers face a major COVID-19 risk. Here's how AI can help keep them safe - World Economic Forum
- Manufacturers strive to stop spread of coronavirus while staying at work - Lincoln Journal Star
- Phase 2 manufacturing facility COVID-19 requirements - WA State
- Tracking coronavirus closures at food and beverage factories - Food Dive
- Washington's largest meat-packing plant, hard-hit by COVID-19, to reopen - Seattle Times

Climate Change and Wildfires

As more people are able to work from home, and do not need to be within easy commuting distance of an office, some people are moving to more distant communities that can offer a lower cost of living along with more space. As these communities grow however, they can push closer to protected state and national lands that are at risk for wildfires.

Design a community to lower the risk that people, homes, and businesses face from wildfires.

- How would you plan the community?
- How big would it be and how close would you recommend it get to public lands?

Background Information

- 5 digital technologies to help fight wildfires - Orange Business
- 5 ways to protect your home from wildfires - Sierra Club
- The climate case for working from home - Heated
- How Silicon Valley companies are thinking about the future of work - Business Insider
- Information on Wildfires in WA State - WA State Department of Natural Resources
- Microsoft is letting more employees work from home permanently - The Verge
- Remote towns evacuated as California wildfire grows - Spokesman Review
- WA can't contain epic wildfires without state, federal help - Crosscut
- Working from home is erasing carbon emissions - but for how long? - Grist

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 several industries to build on themes related to the Challenge case, learn about career pathways within the industry, and to get feedback on youth work.

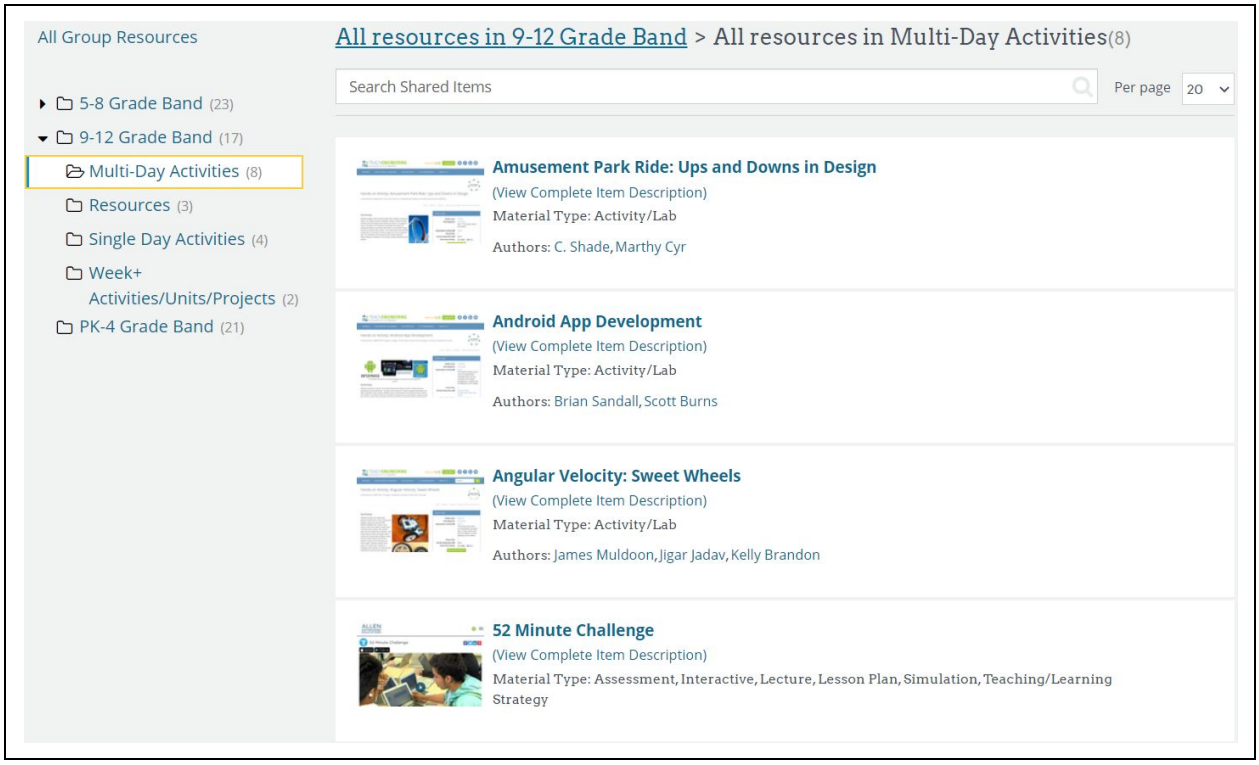
The schedule for these sessions will be available on the State of Innovation website. Be sure you are signed up for the State of Innovation Outreach list to receive updates as new sessions are added. All sessions will be recorded and posted on the State of Innovation website.

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?