

Welcome to Envision by WorldStrides Envisionary Labs!

For over 35 years, Envision by WorldStrides has empowered extraordinary students to become their best selves through programs that enable them to discover their passion, explore a career, and positively impact their world. In 2018, Envision became part of the WorldStrides family. The largest provider of educational travel and experiences in the United States, WorldStrides works with over 50,000 educators each year to help more than 550,000 students see the world—and themselves—in new ways.

Recently, students, families, and teachers have been challenged to quickly shift to new ways of learning and interacting. At Envision, we believe in providing hands-on educational experiences to foster critical thinking and innovation. We created Envisionary Labs to share our instructional philosophies with you and your students at home.

The Envisionary Labs provide student-guided activities that can be completed independently or as a family. These activities enhance creativity and critical thinking and are fun! The goal is to safely transform your home into an innovation lab, allowing your child the opportunity to learn, grow, and explore their power of potential as they navigate through the activities. While the Envisionary Lab is designed for certain grade levels, each lab can be enjoyed by most age groups.

While participating in Envisionary Labs, encourage your child to embrace challenge, think outside of the box, and most importantly, have fun!

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Viruses & Preventive Medicine Challenge

Lesson Plan Introduction

Your child will explore the world of viruses and preventive medicine in this workshop. They will begin by learning a bit about viruses, then they will create a public awareness campaign to help prevent the spread of a virus.

Viruses & Preventive Medicine Challenge	
Lesson Overview	<p>Grade Levels: 9th – 12th</p> <p>Essential Questions:</p> <ul style="list-style-type: none"> • What does preventive medicine entail? • How do you stop the spread of viruses? <p>Objectives: By the end of the challenge, your child will be able to:</p> <ul style="list-style-type: none"> • Describe the characteristics of a virus • Identify and apply the phases of the Design Thinking Process • Understand how to create a persuasive public awareness campaign to prevent the spread of a virus <p>How to measure success: Your child is successful if they complete a public awareness campaign to prevent the spread of a virus following all of the required guidelines of the challenge.</p>

	Item	Quantity/Link
Materials & Resources	<i>Viruses & Preventive Medicine Challenge Lab Manual</i>	1 per child
	Device	Computer, iPad, tablet, and/or smart phone
	Online Resources <i>(see resources page for video names and URLs)</i>	Infectious Disease Overview Video Viruses Video What is Epidemiology? Video The Design Thinking Process Video
	Poster Board and Markers	Optional depending on the platform your child decides to use to present their work.

Preparation	<p>To prepare for this lesson:</p> <ul style="list-style-type: none"> • Keep in mind what is going on in the COVID-19 era, and be sensitive to how your child has been affected and how that could influence their understanding of the material and approach to the challenges. Help to frame the challenges for them in the context of future careers they may want to pursue in medicine or public health. • Get your child set up with a device that they can use to access the online research links. They will also use the device to develop their challenge presentations (e.g., PowerPoint, Word, YouTube and/or social media platforms like Facebook and Instagram). • If your child chooses to use more tangible presentation methods, like posters and markers, have those supplies on hand as well. • We encourage you to review the student materials in the <i>Viruses & Preventive Medicine Challenge Lab Manual</i> to get an idea of what your child will be creating. • Ensure that your child follows the steps of the <i>Viruses & Preventive Medicine Challenge Lab Manual</i> to successfully complete the challenge.
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Standards Addressed	This Envisionary Lab was created based on the following national education standards:	
	Abbreviation	Standard
	CCSS.ELA-LITERACY. CCRA.SL.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
	CCSS.ELA-LITERACY. CCRA.SL.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
	CCSS.ELA-LITERACY. CCRA.SL.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
	CCSS.ELA-LITERACY. SL.9-10.1.C	Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
	CCSS.ELA-LITERACY. SL.11-12.1	Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.
	CCSS.ELA-LITERACY. CCRA.L.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
	HS-ETS1-1.	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
	HS-ETS1-2.	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

Challenge Guidelines

One major way to get people to change their behavior is to educate them about why a new way of doing things is better than an old way. In this challenge, your child will create a public awareness campaign to help educate the public about how to avoid a specific virus. Your child's campaign must be persuasive enough to convince people to change their behavior around health.

Public Awareness Campaign Process

1. First, your child will decide which virus they will target for their Public Awareness Campaign. They will be able to choose a virus from a list of examples they will learn about in the *Exploring Human Viruses* section of the lab manual or one they select from additional research on their own. They should choose a virus that they find interesting and would like to learn more about in terms of how to stop the spread.
2. Your child will complete an Epidemiological Triangle for their chosen virus. The Epidemiological Triangle is a tool epidemiologists use to help understand viruses, then prevent disease from spreading—more information on how to create an Epidemiological Triangle is available in the lab manual.
3. Your child will utilize the Design Thinking Process to create their Public Awareness Campaign. This will include generating ideas for how to prevent the spread of their selected virus. Then, creating a catchy slogan or story that will make people want to adopt this behavior.
4. Your child must create the following campaign content:
 - Print materials (e.g., poster/billboard, flyers, magazine ad, etc.)
 - A social media post (e.g., Instagram, Twitter, Facebook, etc.)
 - A commercial
5. Importantly, your child should ensure accuracy of the information they are presenting in their campaign.
6. Once complete, your child can share their work on social media!

Public Awareness Campaign Criteria for Success

In order to successfully complete the challenge, your child's campaign should have a:

- *Specific target audience* (Who is most likely to contract this virus or be encouraged to adopt new behaviors due to the campaign?)
- *Value proposition* (What's in it for your audience and why should they feel compelled to change their behavior?)
- *Call to action* (What should they do?)
- *"Sticky" catch phrase or slogan* (What is something easy to remember so the information and behavior is more likely to be adopted? For example, Nike's "Just Do It" or Homeland Security's "If you see something, say something.")

Getting Started

Print out or pull up the *Viruses and Preventive Medicine Lab Manual* for your child to use. The interactive PDF is optimized to be used on a tablet or computer. You will also see video links to help your child understand the content that you can pull up before they get started.

For the final campaign project, your child may use computer platforms or poster/craft materials.

Supporting Your Child

Evaluate your child's progress throughout and give a helpful tip or suggestion to help them move forward. You want them to complete the challenge independently as much as possible, but family participation is also encouraged!

Extend the Learning

Share with your student that there are people in the medical community who do this exact kind of work—educate the public about health and wellness. If this sounds interesting and they enjoyed the work they did today, a career in public health might be a good path to pursue!

The Centers for Disease Control also has activities and lessons for high school students on public health.

- **CDC Science Ambassador Educational Activities:**
 - [Introduction to Epidemiology](#)
 - [Investigating an Outbreak](#)
 - [Preparedness and Response](#)
 - [Public Health Surveillance](#)
 - [Careers and Roles in Public Health](#)
- **CDC BAM! Body and Mind Classroom Resources:** [Infectious Disease Epidemiology](#)

Tell Us What You Think

We hope you enjoyed this Envisionary Lab! We encourage you to share it with friends and family. We would love to get your feedback!

Please complete this optional two-minute survey and provide us your thoughts. Thank you!

[Click here to complete the survey!](#)

Resources

Infection Diseases Overview

Let's Learn Public Health. (2017 February 26). *Infectious Diseases - An Introduction* [Video]. YouTube. <https://www.youtube.com/watch?v=9axOFtPqS0c>

Viruses Overview

Amoeba Sisters. (2018 May 22). *Viruses (Updated)* [Video]. YouTube. <https://www.youtube.com/watch?v=8FqITslU22s>

Epidemiology Video

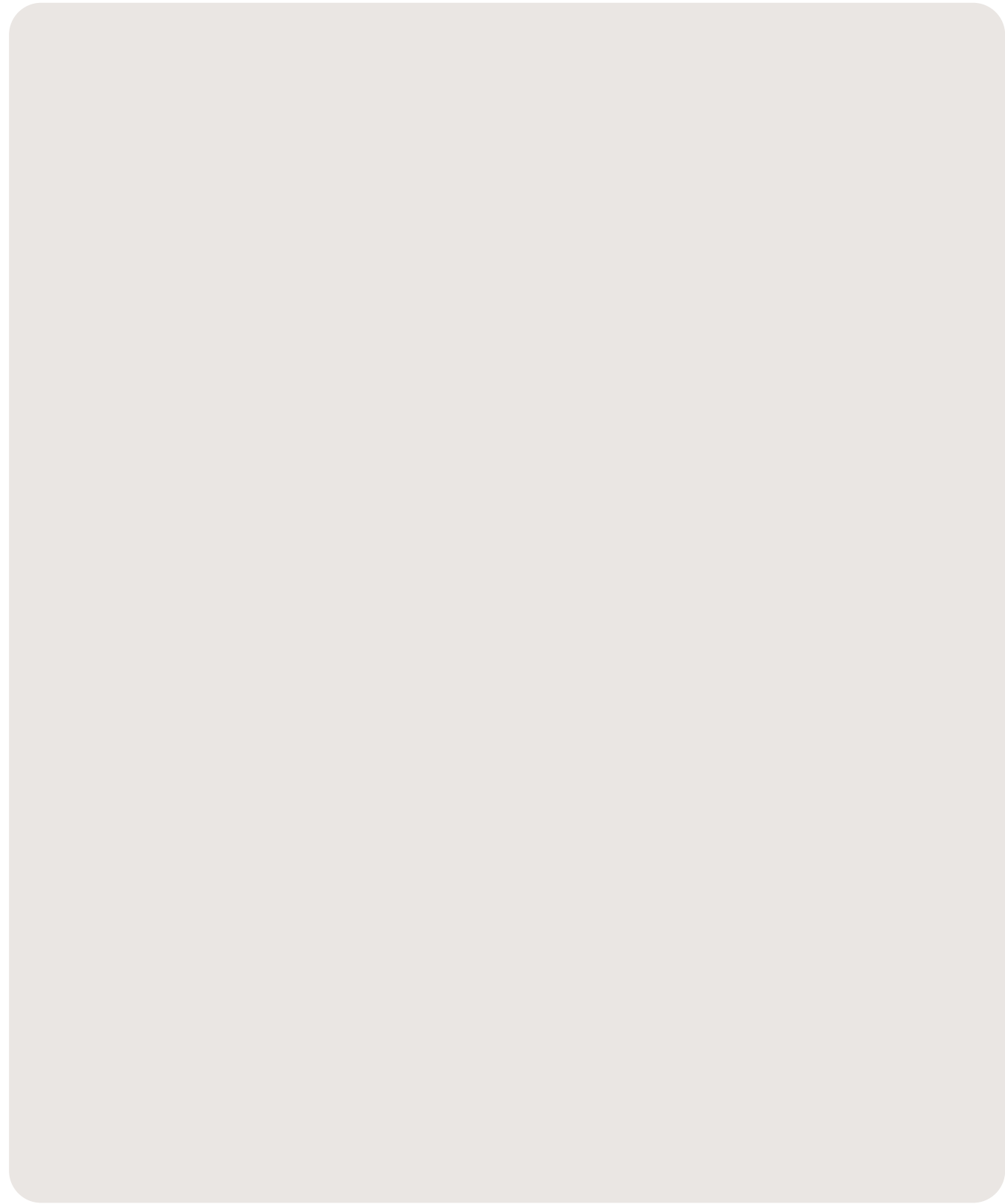
LiveScience. (2020 April 15). What is Epidemiology? [Video]. YouTube. <https://www.youtube.com/watch?v=q-17icRTMyY>

Design Thinking Process

Sprouts. (2017 October 23). *The Design Thinking Process* [Video]. YouTube. https://www.youtube.com/watch?v=r0VX-aU_T8

Note: These videos are created and owned by third parties and this is only a curated set of examples that your child can use to build background knowledge. They are subject to be removed without notice at any time. Need help finding other resources? Reach out to Envision for help.

Notes



Crossword Puzzle Answer Key

