






Smallpox Eradication

Student Data Collection Sheet

Think About It! Write your answers below:

Understanding Smallpox 	1. What resources do you think were required to eradicate smallpox from the world?
	2. The first smallpox vaccine was introduced in 1796. Why was it almost 200 years before smallpox was eradicated from the planet?
	3. Why is smallpox considered to be a serious bioterrorism threat?
Smallpox and CDC 	1. What role does communication play in eradicating a global disease?
	2. Why did the tools used for vaccinations change over time?
	3. Why must epidemiologists always consider cultural and religious factors when developing plans to stop an outbreak of disease?
Citizen Science 	1. Why are vaccines so important in stopping a disease epidemic/pandemic?
	2. In the video, Dr. Tedros issued a rallying cry for nations to come together to defeat COVID-19 just as we did to beat smallpox. How do you think we are doing?
	3. What training would you suggest for public officials learning to stop outbreaks?



Reflections

Now that you have completed this investigation, think about what you learned about smallpox and **epidemiology**. Answer the questions below.

1. What effects did vaccination have on the instances of smallpox worldwide?

2. How did the tools used to vaccinate people against smallpox change over time? Why?

3. What are some possible sources of local and/or global conflict that might arise when fighting an epidemic with such a broad reach?

4. Live samples of smallpox are currently only stored in two locations: Russia's State Research Center of Virology in Koltsovo, and the U.S. Centers for Disease Control and Prevention in Atlanta. Why are the samples being kept? Should they be destroyed?

5. The original strategy of vaccinating everyone for smallpox was gradually changed in favor of vaccinating only those people around confirmed cases. Do you think this was a good strategy or are there dangers in having an unvaccinated world population? Explain.

6. As a field **epidemiologist**, what do you think should be your number one priority when first analyzing an outbreak? Why is this most important to you?
