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| **Name:** |  |

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|  | Smallpox Eradication  **Student Data Collection Sheet** |

Think About It! Write your answers below:

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| Understanding Smallpox | 1. What resources do you think were required to **eradicate** smallpox from the world? |
| 1. The first smallpox vaccine was introduced in 1796. Why was it almost 200 years before smallpox was **eradicated** from the planet? |
| 1. Why is smallpox considered to be a serious bioterrorism threat? |

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| Smallpox  and CDC | 1. What role does communication play in **eradicating** a global disease? |
| 1. Why did the tools used for vaccinations change over time? |
| 1. Why must **epidemiologists** always consider cultural and religious factors when developing plans to stop an outbreak of disease? |

In this step, you share your information. Sharing the information you collect is key. Click the links below to share:

https://observer.globe.gov/do-globe-observer/mosquito-habitats

http://www.citizenscience.us/imp/collectionform.php

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| Citizen Science | 1. Why are vaccines so important in stopping a disease epidemic/pandemic? |
| 1. 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? |
| 1. What training would you suggest for public officials learning to stop outbreaks? |

Write a Field Handbook or Case Study

You may choose to make a physical handbook or a digital one. Whichever format you choose, include photos or a link to your field handbook or case study below.

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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?

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

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

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1. 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?

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1. 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.

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1. 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?

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