

# Pennsylvania: At the forefront in the prevention of infectious diseases

## Puzzle Activity

### Watch the film



### Instructions

**Step 1:** Use the information from the film to answer each question or fill in the blank. Enter one letter in each space. Note that some spaces are designated by a square, circle, or triangle. These letters will be part of the final answer.

**Step 2:** Enter the letters from the shapes into the corresponding spaces on the final answer section. Each shape group makes up one word of the answer phrase.

**Step 3:** Unscramble the letters of each shape group to get each word in the answer phrase.

### Questions

1. What was it called when General George Washington decided to inoculate his soldiers with pus from a mild case of smallpox to reduce, but not eliminate, the risk of death from the disease?

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2. What Pennsylvania location did George Washington camp at through the winter? Here is where he ensured his soldiers were inoculated against smallpox.

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3. For what disease did Edward Jenner create the first vaccine?

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4. What animal helped Edward Jenner create the first vaccine?

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5. H.M. Alexander called the first mass production center for creating vaccines the \_\_\_\_\_ farm. It was located in Lancaster County (Marietta, PA).

\_ \_ \_  \_ \_

6. In Radnor, Pennsylvania, Benjamin Ruben developed a new tool to make smallpox vaccination simple and effective; it was called the bifurcated \_\_\_\_\_.

\_ \_ \_ \_ \_

7. Which scientist developed the killed-virus (inactivated) vaccine for polio at the University of Pittsburgh? (First and last name)

\_ \_ \_ \_ \_  \_ \_ \_ \_ \_

8. What organ does hepatitis B damage?



9. What disease, caused by human immunodeficiency virus (HIV), sparked a fear of contamination that caused Dr. Maurice Hilleman to change his hepatitis B vaccine?



10. Robert Austrian, a scientist at University of Pennsylvania, developed a vaccine against pneumococcal bacteria to prevent what?



11. The pneumococcal vaccine protects against 23 different \_\_\_\_\_ of bacteria.



12. At the Wistar Institute in Philadelphia, a vaccine was developed that was nearly 100% effective against the deadly \_\_\_\_\_ virus.

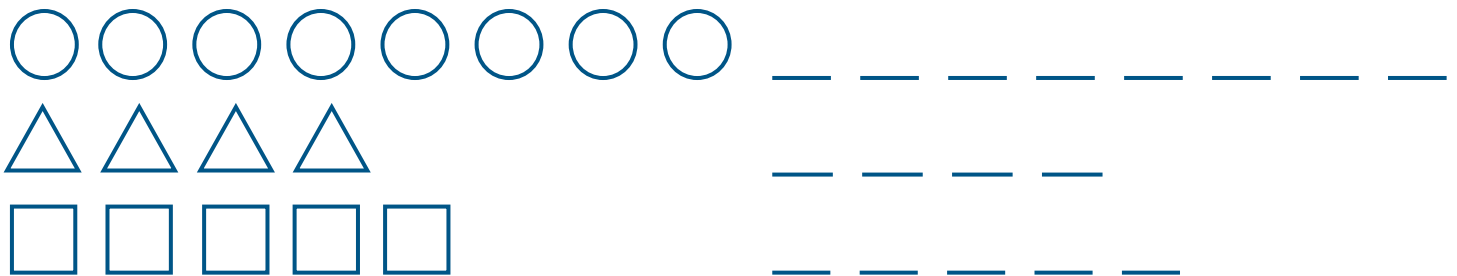


13. Scientists Katalin Karikó and Drew Weissman's research into mRNA vaccines helped to end the COVID-19 \_\_\_\_\_.



### Final Answer

Enter the letters from the answers to each question, matching them to the same shape in the spaces below. Next, unscramble the letters of each word to make a phrase.



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