

**Name:** \_\_\_\_\_

**Topic: AlphaFold and the Protein Folding Revolution (April 2nd 2026)**

Read over the following questions before the video, and we'll discuss them together after the video.

1. **The Challenge:** How long had scientists been trying to solve the "protein folding problem" before AlphaFold?

2. **The "Code":** What is the "one-dimensional" input that AlphaFold uses to predict a "three-dimensional" structure?

3. **The Scale:** The video mentions a massive database. Roughly how many protein structures has AlphaFold predicted and made available to the public?

4. **AlphaFold Model:** Were LLMs ever part of the AlphaFold model?

5. **Speed vs. Cost:** Before AI, how long (and roughly how much money) did it take to determine a single protein structure experimentally? How does this compare to AlphaFold?

8. **Critical Thinking:** Does AlphaFold *replace* the need for biologists and experimental labs? Why or why not?