Dr. Arnold O. Beckman’s Revolutionary Tools
In-Tour Activity: Matching Terms

**Directions:** Below you will find a set of terms and a list of clues. Based on what you learn during the Revolutionary Tools exhibit tour, match each term with its corresponding clue. The first one is completed for you as an example.

1. **Cullom**
   Clue: Rural Illinois town where Arnold O. Beckman was born in 1900

2. **blacksmith**
   Clue: Profession of Arnold’s father

3. **chemistry**
   Clue: Subject of the book that sparked Arnold's lifelong curiosity

4. **Marines**
   Clue: Branch of the military that 18-year-old Arnold joined during WWI

5. **Caltech**
   Clue: University where Arnold earned his PhD in photochemistry and later became a professor

6. **matter**
   Clue: Photochemistry is the study of how light interacts with this

7. **glassblowing**
   Clue: Dr. Beckman taught a world-renowned class on this skill

8. **phone**
   Clue: Type of systems that Dr. Beckman worked on quality control for while at Bell Labs in NYC

9. **lemons**
   Clue: Dr. Beckman’s fraternity brother was interested in measuring the pH of this type of fruit

10. **acidimeter**
    Clue: Another name for a pH meter

11. **business**
    Clue: Dr. Beckman left Caltech to pursue this kind of opportunity

12. **Mabel**
    Clue: Name of Dr. Beckman’s wife who also traveled cross-country with him to sell pH meters

13. **oxygen**
    Clue: The only gas that reacts to a magnetic field

14. **submarines**
    Clue: The oxygen analyzer helped these vessels stay submerged longer

15. **incubators**
    Clue: To help prevent preemie blindness oxygen analyzers were used in these hospital devices

16. **space**
    Clue: Oxygen sensors are used for high altitude flight including this type of exploration mission

17. **spectrophotometer**
    Clue: Instrument that measures the interaction between light and materials

18. **supplements**
    Clue: Early use of the spectrophotometer measured the amount of Vitamin A in these

19. **ultracentrifuge**
    Clue: An instrument Dr. Beckman invested in that was used to prove the theory of DNA replication in cells

20. **Inventors**
    Clue: Dr. Beckman as inducted into this Hall of Fame (like Alexander Bell and Thomas Edison)

21. **smog**
    Clue: Dr. Beckman led a task force to understand causes of and find ways of improving this

22. **institutes**
    Clue: Dr. and Mrs. Beckman used their fortune to start a foundation, support young scientists and establish five of these across the nation

23. **science**
    Clue: Dr. Beckman's Revolutionary Tools may spark your interest in a career in this field