

# THE HISTORY CHANNEL CLASSROOM STUDY GUIDES

## Modern Marvels

### Prosthetics

Since the dawn of humankind, people have tried to replace missing limbs with substitutes that worked and looked like the real things. The desire and need to replace missing limbs is the cornerstone of an entire industry—the creation of prosthetics. Using space-age materials and designs, the prosthetics of today are more functional than ever before, allowing amputees the same freedom and range of motion as those who possess natural limbs.

*Prosthetics* would be useful for classes on World History, American History, History of Science and Medicine, Science and Technology, and Military History. It is appropriate for middle school and high school.

- [Alleged](#)
- [Amputation](#)
- [Animate](#)
- [Antibiotics](#)
- [Appalling](#)
- [Articulation](#)
- [Artifact](#)
- [Cadaver](#)
- [Cauterize](#)
- [Congenital](#)
- [Cosmoses](#)
- [Criteria](#)
- [Excavate](#)
- [Gangrene](#)
- [Horrific](#)
- [Hydraulic](#)
- [Ingenious](#)
- [Piety](#)
- [Residual](#)
- [Thalidomide](#)

### Discussion Questions

1. The development and creation of prosthetics is called both an art and a science. Why are the research and careful methods of the scientist, and the creativity of the artist required to make a successful prosthesis?
2. How do we know that prosthetics were used in antiquity? How does a culture's art transmit information about that culture to other, perhaps later, cultures?
3. The early Greeks and Romans developed many sophisticated surgical techniques. Why were these techniques lost for almost a thousand years? What other advances in art, medicine, science, math, etc. were lost in the Dark Ages?
4. What does the adage "necessity is the mother of invention" mean? How does this saying apply to the development of prosthetics?
5. Amputees turned to others besides their surgeons to design and fashion their prosthetics. How were local artisans and craftsmen involved in the prosthetic making process?
6. How did improvements in surgical techniques in the 19th century improve prosthetics?
7. How and why have wars advanced the art of prosthetics?

8. Prosthetic makers and amputees consider the socket the most important part of the prosthesis. Why?

### **Extended Activities**

1. Design a prosthesis that is both functional and aesthetically pleasing.
2. Create a poster that illustrates the evolution of prosthetics.