

Name: _____ Date: _____ Class: _____

Research Worksheet **Answer Key**

Research the following aspects of prosthetic limbs:

1. **Materials:** How have prosthetic materials changed over the years? What materials are most commonly used now? What are the advantages and disadvantages of the most commonly used materials?

Modern materials make prosthetics stronger, lighter and more realistic in appearance and use

- Advanced plastics
- Carbon fiber composites
- Electronic components as control methods

Advantages: lighter, more durable, able to mimic more realistic appearance and movement

Disadvantages: cost, availability of materials

2. **Controlling the prosthesis:** What are the pros and cons of current prosthetic control/movement methods?

Research answers will vary.

3. **Research old-style prostheses (prior to 1940):** What kinds of materials were successfully used and how? What designs were effective for lower-leg prostheses? **Your goal** is to get information that will help you design your own lower-leg prosthesis starting tomorrow.

Research answers will vary.

4. **Research current prostheses:** Which prosthesis design and materials would you choose for a below-the-knee prosthesis regardless of price? Which prosthesis design and materials would you choose if you had a limited budget?

Research answers will vary.