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.