**Lending a Hand Activity –
Assistive Hand Device Pre-Activity Quiz**

**Part I: Apply Concepts**

Provide all answers in complete, grammatically correct sentences. If you do not know an answer to a question, write: *I don't know*.

1. What are the functions of the human hand?

2. What are the structures in the human hand that allow for it to perform its functions?

3. What is Newton's first law of motion?

4. Describe an instance in which Newton's first law of motion can be observed in the functioning of the human hand.

5. What is Newton's second law of motion?

6. Describe an instance in which Newton's second law of motion can be observed in the functioning of the human hand.

7. What is Newton's third law of motion?

8. Describe an instance in which Newton's third law of motion can be observed in the functioning of the human hand.

**Part II: Matching**For the definition, identify the type of force by writing one of the terms provided in the **Word Bank** below.

**Word Bank**

gravity, normal, tension, compression, shear, bending, applied force, friction, air resistance

1. Two pushing (or pulling) forces opposing each other, but not directly across from each other \_\_\_\_\_\_\_\_\_\_\_
2. An added force (not directly across from support forces) that causes compression on one side and tension on the other \_\_\_\_\_\_\_\_\_\_\_\_\_
3. A force that pulls objects towards the center of the Earth; force that pulls objects towards some massively large object \_\_\_\_\_\_\_\_\_\_\_\_\_
4. Force applied to (exerted on) an object by another object \_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Slowing-down force; exerted by a surface as an object moves across it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Type of frictional force that slows down objects as they travel through air \_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Support force; exerted upon an object that is in contact with a stable object \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Two pushing forces, directly opposing each other that squeeze an object to try to squash, or compress, it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Two forces pulling in opposite directions; the force used to stretch an object by pulling it apart \_\_\_\_\_\_\_\_\_\_\_\_\_