

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## 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?

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

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

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

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

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

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

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

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

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### 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 \_\_\_\_\_