

# 4<sup>th</sup> Grade Science Remote Learning Packet

Week 4



Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

(Date)

Parents please note that all academic are also available on our website at <u>www.brighterchoice.org</u> under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.



Week 4 Day 1 Date:
Hampton, Howard, Morehouse

### Guided Notes: Human Machines, Why do biceps bulge?

#### Vocabulary:

- 1. Human Body: the physical \_\_\_\_\_\_ and material substance of a human being
- 2. Bone: any one of the hard pieces that form the \_\_\_\_\_\_ (called a skeleton) inside a \_\_\_\_\_\_ or animal's body

3. Muscle: a body tissue that can contract and produce \_\_\_\_\_\_

- 4. Tendon: a tough piece of tissue in your body that \_\_\_\_\_\_ a muscle to a bone
- 5. Structure: he way that something is \_\_\_\_\_\_, arranged or organized
- 6. Skeleton: the \_\_\_\_\_\_ of bones that supports the body of person or animal

#### Video Notes and Discussion Questions:

As you are watching the video explorations, take notes or answer the discussion questions.

Exploration 1: Notes--\_\_\_\_\_

Exploration 2: Discuss— What do you think is going on inside your hands when you're moving your fingers?

Exploration 3: Notes
Exploration 4: Discuss— Take a few moments to move the different parts of your body and see if you can find all your joints
Exploration 5: Notes
Exploration 6: Discuss— What do you think would actually be pulling on the strings?
Exploration 7: Notes
Exploration 8: <i>Discuss</i> — Describe how you might go about creating a robot hand that works just ike yours?

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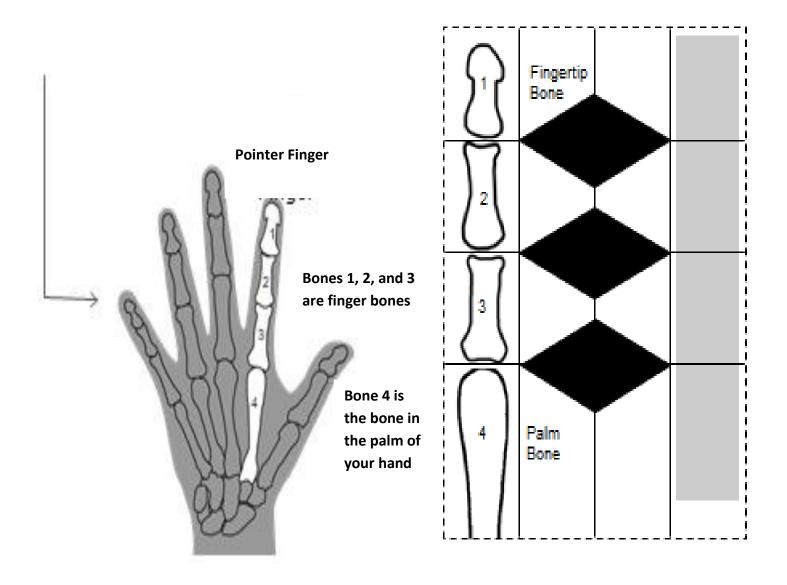
Week 4 Day 1 Date: \_\_\_\_\_

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## **Robot Finger Template**

**Directions:** Look at the drawing of the hand below. You're going to make a "robot" version of your pointer finger.



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## End of Mystery Assessment

- 1. In the video, Doug claims that the human body "works a lot like a robot." What are some ways that our bodies are *similar* to robots?
  - a. Our bodies use metal rods like robots.

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- b. Our bodies are similar to robots because we have rods and strings that produce movement.
- c. Our bodies have a computer like robots.
- d. Our bodies are not similar to robots.

- 2. Why do you think that scientists find dissection useful for learning how the body works?
  - a. Dissection is not useful for learning how the body works.
  - b. Dissection cannot be done on the human body.
  - c. Dissection is useful because it makes the body look like a robot.
  - d. Dissection allows us to look inside the body and see what is going on.

3. Make a drawing that explains how biceps move your lower arm. (Use words and arrows to help you explain it.)

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- 4. Would you be able to move if you didn't have bones? Why or why not?
  - a. You wouldn't be able to move without your bones because your muscles would have nothing to pull on.
  - b. Bones are the structure of the body.
  - c. The body is able to move without the bones.
  - d. You wouldn't be able to move the body without your bones because it is part of the structure.