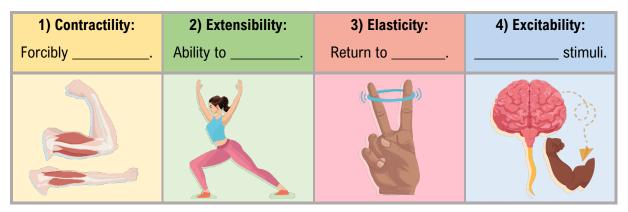
#### **TOPIC: INTRODUCTION TO MUSCLES AND MUSCLE TISSUE**

#### **Properties of Muscle Tissue**

- Recall: Muscle tissue is specialized for \_\_\_\_\_\_ to create movement.
  - Convert chemical energy to \_\_\_\_\_\_ energy. Generate \_\_\_\_\_.
- Properties of muscles:



**PRACTICE:** A main function of muscle is to convert chemical energy to mechanical energy. Which property of muscles relates most directly to this function?

a) Contractility.

c) Elasticity.

b) Extensibility.

d) Excitability.

# **TOPIC:** INTRODUCTION TO MUSCLES AND MUSCLE TISSUE

### **Types of Muscle Tissue**

• Recall: \_\_\_\_\_\_ types of muscle tissue in the human body:

Muscle Type	Skeletal Muscle	Cardiac Muscle	Smooth Muscle
Location	Connected to Bones	Heart	Blood Vessels
Voluntary/ Involuntary	Voluntary		Involuntary
Striated		Striated	Striated
Nuclei per Cell	Many	One	

<b>EXAMPLE:</b> Amal claims he can lower his heart rate by thinking about it, just like how he can flex his bicep by			
about it. Does this seem possible given the type of muscle tissue in the heart? Explain your reasoning.			

**PRACTICE:** You are looking through a microscope at muscle tissue and you do not see any striations. What type or types of muscle could you be looking at?

a) Cardiac.

c) Smooth.

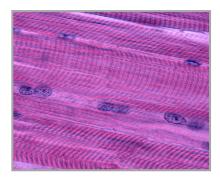
b) Skeletal.

d) A & C are both correct.

# **TOPIC:** INTRODUCTION TO MUSCLES AND MUSCLE TISSUE

PRACTICE: What type of muscle tissue is shown in the slide below?

- a) Cardiac.
- b) Skeletal.
- c) Smooth.
- d) It is impossible to tell from the image.



**PRACTICE**: Which type of muscle cell is typically the largest?

a) Cardiac.

c) Smooth.

b) Skeletal.

d) Different types of muscle cells are roughly the same size.