

## 2<sup>nd</sup> Grade – Body System

### Learning Objectives

I can identify the major body systems. (SOL 2.1)

- 2.1 The student will identify the major body systems, healthy food and beverage choices, emotions, and social skills and explain how each is connected to personal health.

### Body Systems

- a. Identify structures that form body systems, including the heart and lungs (cardiorespiratory system), bones (skeletal system), and muscles (muscular system) and how the systems work together.

### Teacher Notes

- List 7 major muscles of the muscular system that students use everyday.
- Post visual chart of major muscles.
- Give examples of muscles and location.
- List the 3 types of muscles (cardiac, voluntary, and involuntary).

### Lesson Steps

#### *Step 1 (Engage learners/access prior knowledge)*

- Discussion question: When you lift your backpack, are you using muscles? Can you name any muscles in your body? How important is your muscles to the body?

#### *Step 2 (New information – direct instruction/teacher-facilitated learning)*

- Introduce the lesson by explain how the muscles help us to function every day from walking, lifting, sitting, and eating. Use visual diagram of the muscles to help students understand and where they are located.
- Explain that over 600 muscles made up the human body.
- Explain how many muscles makes you smile and frown (17 smiles and 43 frown).
- 3 Types of muscles (cardiac, voluntary, and involuntary).

#### *Step 3 (Application – how student will apply/practice new learning)*

- Let students work in pairs tapping their own body and calling the muscles learned.
- Play a game “Simon Says” Let students close their eyes as you call out the muscles, they will tap the part on their body the muscle is located.
- Do a muscle relay activity with where they must label the muscles on a visual chart of a human body.

### Assessments

Students will label a blank diagram with muscles they learned about in the lesson.

### **Extensions/Connections**

The musculoskeletal system educational video for kids:

<https://www.youtube.com/watch?v=ynVRDsDC-84>

### **Resources/References**

- How does my body move? <https://www.youtube.com/watch?v=j918PoWWaB0>
- Major muscle group of the human body:  
<https://www.youtube.com/watch?v=58gI3jXNnPI&t=32s>

### **Handouts**

See Muscles Notes (attached)

See Worksheets (attached)

# Notes re. Muscles

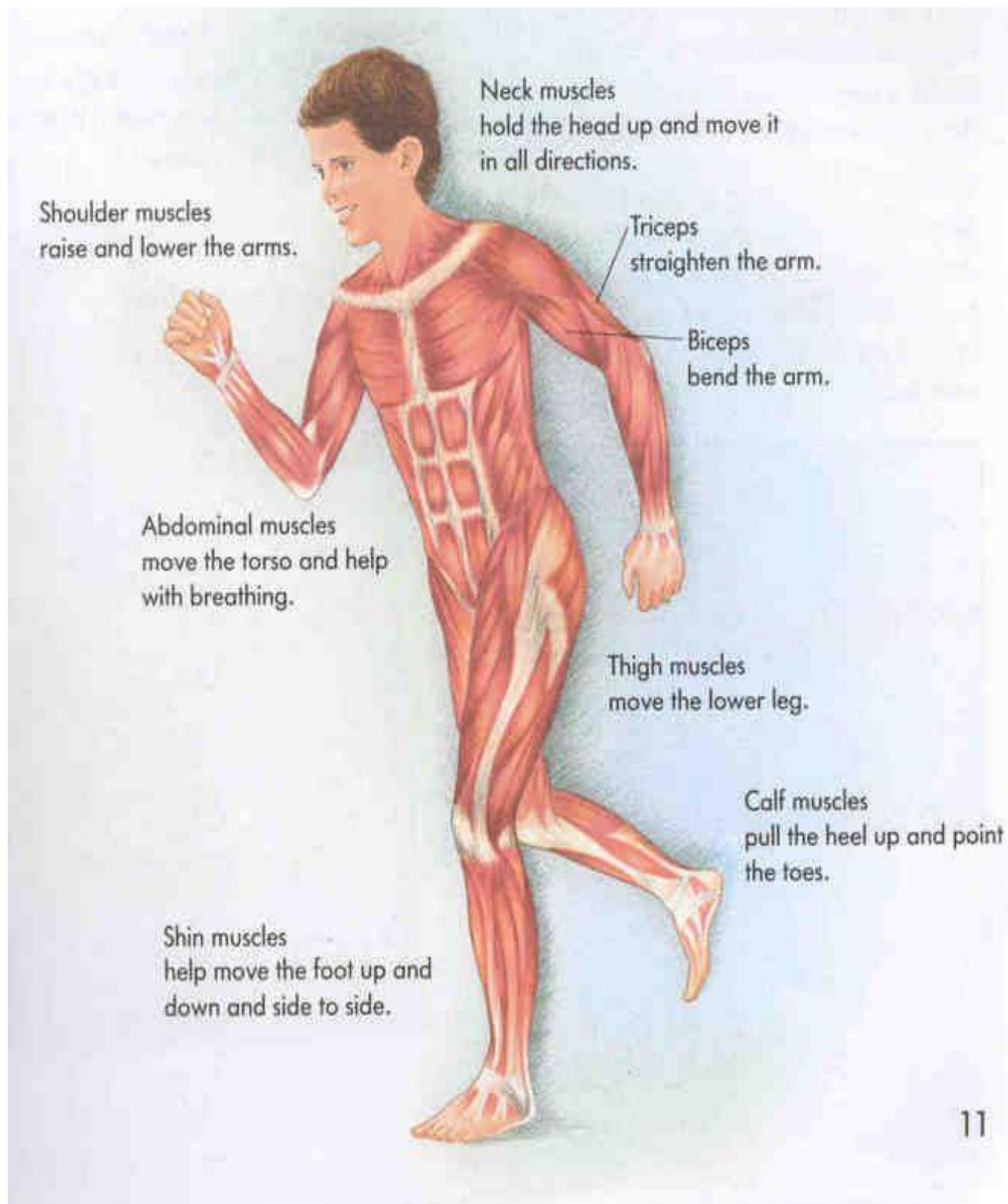
## Voluntary and Involuntary

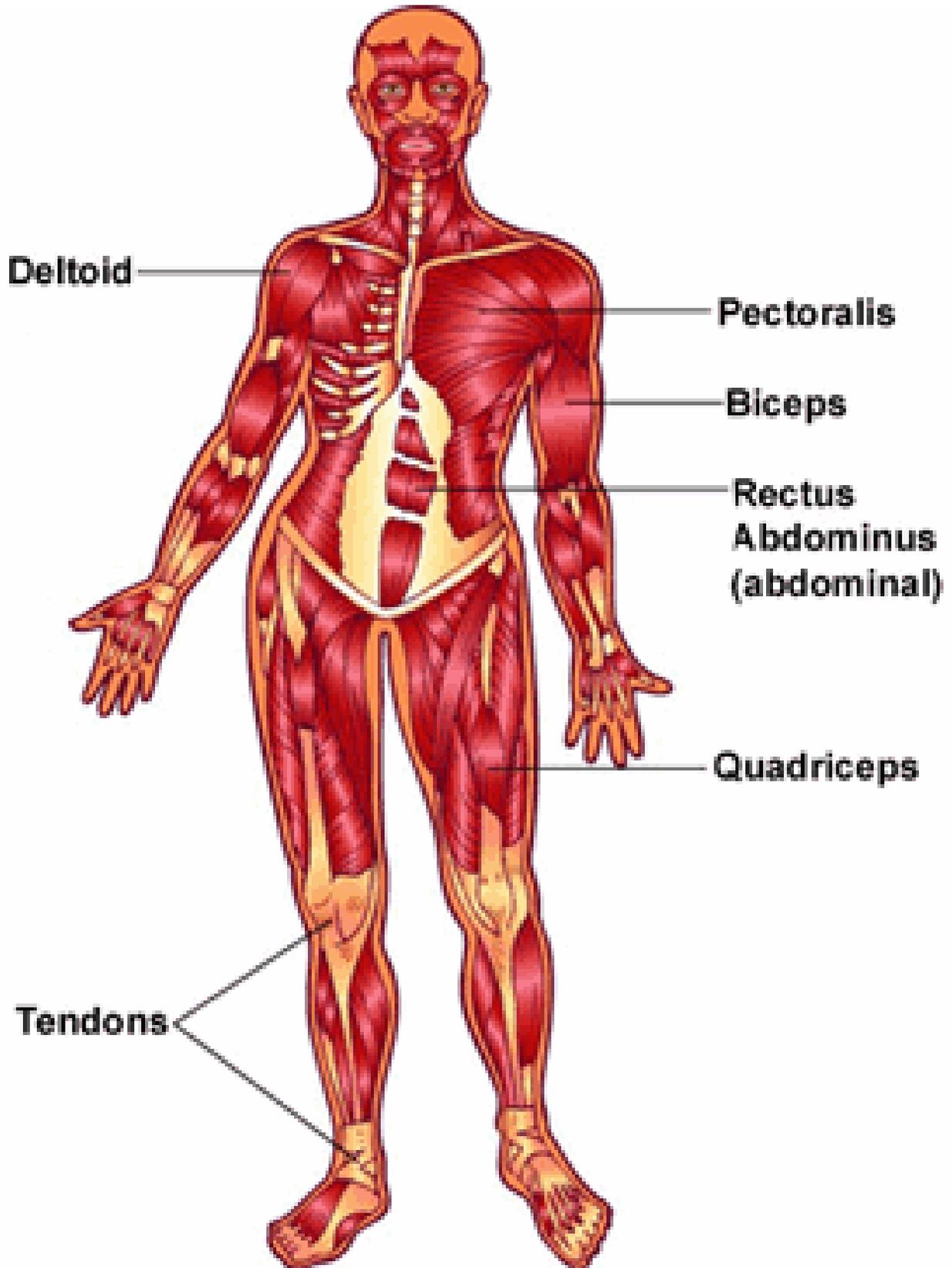
### Voluntary Movement

- ◆ Enables walking, standing, sitting, and other movements
- ◆ Maintains body in upright position
- ◆ Participates in body balance

### Involuntary Muscle Action

- ◆ Maintains heartbeat to pump blood
- ◆ Provides arterial blood flow
- ◆ Promotes lymphatic and venous blood return to heart
- ◆ Dilates and contracts blood vessels to control blood flow
- ◆ Maintains respiration
- ◆ Performs digestion processes
- ◆ Performs elimination processes
- ◆ Participates in reflexes
- ◆ Enables all other involuntary actions of body

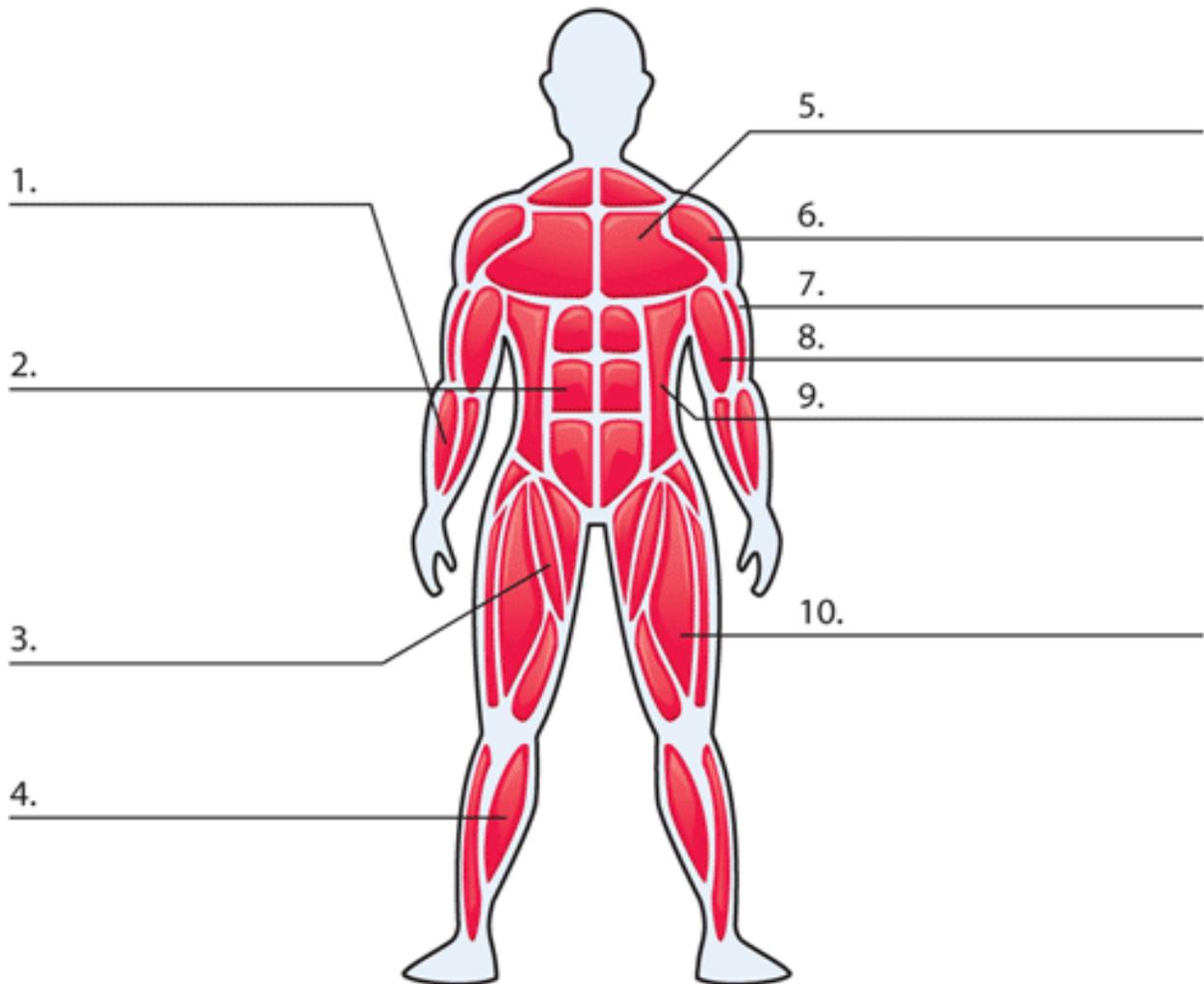




# HOW THE BODY WORKS

## The Muscles

**Directions:** Print out and label the parts of the muscles.



### WORD BANK

sartorius  
rectus abdominus  
deltoids

brachioradialis  
pectorals  
triceps

biceps  
external obliques

quadriceps  
gastrocnemius