Most skeletal muscles are attached to bones by dense regular connective tissue in the form of cord-like tendons or membranous sheets called aponeuroses. When a muscle contracts, it causes an action at the joint(s) it crosses. When an action occurs, one bony attachment, the origin, remains fixed or stationary while the other attachment, the insertion, will move. In the upper and lower extremities, the origin is usually proximal to the insertion.

Muscles can be classified according to the functions that they serve. A prime mover, or agonist, is a muscle that directly brings about a specific action; an antagonist muscle directly opposes that action. For example, consider flexion and extension of the elbow. For flexion, the brachialis and biceps brachii are prime movers, while triceps brachii is the antagonist.

Muscles can also be synergists by promoting or assisting in a specific action. For example, when you flex your fingers to make a fist, the wrist extensor muscles act as synergists by preventing wrist flexion. A type of synergist, called fixator, stabilizes joints or muscle origins so prime movers can act more efficiently. For example, muscles that attach the scapula to the axial skeleton, such as the pectoralis minor, serratus anterior, and the rhomboids, stabilize the scapula and shoulder joint while other muscles move the arm.

PROCEDURE
The following activities will help you study the gross anatomy of the muscular system.

1. Locate the origins and insertions of specific muscles by observing a skeletal model or referring to your textbook.
2. Identify the muscles by reviewing diagrams.
3. Analyze the muscles’ actions by observing as you or your lab partner performs them.
4. Complete labeling/coloring worksheet

Muscles of the Head
A. Muscles of Facial Expression
The muscles of facial expression are located deep to the skin of the face, neck, and scalp. Most originate on bone and insert into the skin. All muscles of facial expression are innervated by the facial nerve (CN VII).

1. Use your textbook to identify the following muscles of facial expression: frontalis, occipitalis, orbicularis oculi, orbicularis oris, zygomaticus, buccinator, and platysma.
2. Examine the following muscles’ action by doing them or watching your lab partner.
   a. Raise your eyebrows and notice that the skin of your forehead wrinkles. This action is produced by the ______________ muscle.
   b. Close one eye by blinking or squinting. This action is initiated by the ____________________, a circular muscle that surrounds the eye.
   c. Compress your cheeks by whistling or blowing. This action is produced by the ______________ which is the relatively large muscle of facial expression that can be palpated in your cheek wall.
   d. When you smile, the __________________________ is the primary muscle that elevates the corner of your mouth.
   e. While you speak, your lips are protruded by the ______________ which is the circular muscle that surrounds your mouth.
   f. As you grit your teeth, palpate the skin along the anterior surface of your neck. Notice that the skin is very tense. This is caused by the contraction of the ______________.

B. Muscles of Mastication
The four muscles of mastication are involved in ______________ food. They act on the ______________ joint (TMJ) to elevate, depress, protract, and retract the mandible. The muscles of mastication are all innervated by the mandibular branch of the trigeminal nerve (CNV).

1. Use your textbook to identify the temporalis and the masseter
2. Starting with your mouth opened wide, place two fingers of one hand on your temporal fossa. Elevate your mandible so that your teeth come together. As you perform this action, you should feel the ______________ muscle contract.
3. Repeat this action, but put your fingers on your cheek, just anterior to your ear and inferior to the zygomatic arch. As you elevate your mandible, palpate the ______________ muscle as it contracts.
C. Muscles of the Pharynx
The muscles associated with the pharynx are necessary for swallowing.
1. Use your textbook to identify:
   a. the muscles of the soft palate: levator veli palatini and tensor veli palatini
   b. the pharyngeal constrictors: superior, middle, and inferior pharyngeal constrictors
   c. the laryngeal elevators

   Note that many of these muscles support the larynx by suspending it from the base of the skull
2. Observe your lab partner while he or she is swallowing. Notice that during the swallowing process, the larynx is elevated toward the ____________.
3. You can observe this action by identifying the ____________ cartilage along the anterior aspect of the neck and watching it moving superiorly during swallowing.
4. The act of swallowing also involves the action of muscles that elevate the _________________ and constrict the ____________________.

Muscles of the Neck
The most prominent muscle in the neck is the sternocleidomastoid, which separates the neck into two triangular-shaped regions known as anterior and posterior triangle.
1. Identify the SCM in your textbook
2. Observe your partner as he or she raises his/her head from a supine position. The simultaneous contraction of both muscles causes neck _________ (flexion/extension).
3. Observe as your partner rotates the head toward shoulder on ____________ (opposite/same) side and tilts the head to its ____________ (opposite/own) side. You will notice these contractions occur when each muscle acts alone.
4. Traveling just deep to the SCM are the ____________________ artery and the ____________________ vein.

A. Muscles of the Anterior Triangle
Muscles of the anterior triangle include two superficial and one deep group.
1. Identify the suprathyroid muscles which are superior to the hyoid bone and connect it to the skull: mylohyoid, geniohyoid, stylohyoid, and digastric
2. Identify the infrahyoid muscles which are inferior to the hyoid bone and connect it to the sternum, clavicle, and scapula: sternohyoid, sternothyroid, thyrohyoid, and omohyoid.
3. Identify the deep muscles that connect the base of the skull to the vertebrae C1 through T3: longus capitis and longus colli
4. Place two fingers on your laryngeal prominence(Adam’s apple), then move your fingers up about 1 to 1.5 cm and apply gentle pressure to feel the hyoid bone. As you swallow, feel the hyoid bone being elevated and then depresses to its original position. When the hyoid is elevated, suprathyroid muscles act as ____________ and the infrahyoid muscles act as _____________. When the hyoid is depressed, the roles reverse.
5. The longus capitis and longus colli flex the _________ and _________ respectively. From anatomical position, observe while your lab partner flexes his or head and neck anteriorly.

B. Muscles of the Posterior Triangle
The posterior triangle muscles include the splenius, levator scapulae, and scalenes. The splenius covers the posterior and lateral surface of the neck. The levator scapulae, although located in the posterior triangle, elevates the scapula. The scalenes connect cervical vertebrae to the first and second ribs, and their rib attachments are important during forced inspiration.
1. Identify in your textbook the bolded muscles above
2. Have your lab partner bend the neck from side to side while you observe. The _________________ and the _________________ are responsible for laterally flexing the neck.
3. The _________________ also extends the neck and head. Have your lab partner start with his or her head and neck bent forward, then observe as the head and neck are extended.
Name the major muscles described here. Select a different color for each muscle listed and color in the coding circle and corresponding muscles.

- _______________ used in smiling
- _______________ used to suck in your cheeks
- _______________ used in winking
- _______________ used to form the horizontal frown on the forehead or to raise your eyebrows
- _______________ the “kissing” muscle
- _______________ prime mover of jaw closure
- _______________ synergist muscle for jaw closure
- _______________ prime mover of head flexion; a two-headed muscle

**Muscles of the Thorax**

The intercostals spaces, between the ribs, contain three layers of intercostals muscles: **external intercostals**, **internal intercostals**, **innermost intercostals**, **transversus thoracis**, and **subcostal**.

1. Identify in your textbook the bolded muscles above.
2. Place the index fingers from each hand on your ribs on both sides of the thorax and breathe normally. From the neutral position, you will feel your ribs being elevated by the _____________ (external/internal) intercostal muscles as you inspire quietly. When you expire quietly, you will feel your ribs being depressed. This action occurs passively. However, during forced expiration the ribs will be depressed even more by the _____________ (external/internal) intercostal muscles.
3. With your fingers on your ribs, breathe normally for a few cycles. When ready, forcefully expire. You will feel additional depression of the ribs during forced expiration.
4. What do you think the innermost intercostals, transversus thoracis and subcostal are considered to be (hint: prime movers, antagonists, synergists)? ______________ .

**Muscles of the Abdominal Wall**

Most of the abdominal wall lacks bony reinforcement. The muscles of the abdominal wall fill this gap to form a strong enclosure that protects vulnerable abdominal viscera from injury. Most of the anterior and lateral aspects of the abdominal wall are covered by four pairs of muscles: **rectus abdominis** covers the anterior abdominal wall; **external oblique**, **internal oblique**, and **transversus abdominis** cover the anterolateral aspect of the abdominal wall.
1. Identify in your textbook the bolded muscles above
2. From the anatomical position, have your lab partner bend forward at the waist while you observe. This action occurs at the intervertebral discs between thoracic and ________ vertebrae. ________________ is the prime mover for flexion of the thoracic and lumbar regions of the vertebral column. The ________________ and ________________ muscles assist the erector spinae muscles in lateral flexion and rotation of the torso. Observe your lab partner as he or she performs these actions.
3. Sit or stand quietly with your fingers resting on the anterior wall of your abdomen. Breathe normally for a short period and when you are ready, expire forcefully after a normal expiration. During the forced expiration, you will feel the rectus abdominis contract. Contraction of the abdominal wall muscles push abdominal organs up against the diaphragm which, in turn, ________________ (increase/decrease) internal thoracic pressure and helps force air ________ the lungs.

Deep Back Muscles
The deep back muscles are important because of their actions on the vertebral column and head, and their role in maintaining normal posture. They include the erector spinae muscles, the splenius muscles, and the transversospinalis muscles. The erector spinae muscles are comprised of three muscular bands that travel vertically from the sacrum to the posterior surface of the skull, along each side of the vertebral column.

Muscles of the Shoulder
The muscles of the shoulder assist in stabilizing the scapula during arm movements. They also perform a number of movements on the scapula, which increase the range of motion at the shoulder, and are responsible for many actions of the arm.

A. Anterior Shoulder Muscles
The anterior shoulder muscles include the pectoralis major, pectoralis minor, and serratus anterior. These muscles form the bulk of the muscular wall of the anterior thorax and act directly on the scapula or humerus.

1. Identify the above bolded muscles in your textbook.
2. The serratus anterior inserts on the anterior margin of the vertebral border of the scapula and keeps the scapula in position against the thoracic wall. If the muscle is paralyzed, the ________________ (medial/lateral) border of the scapula moves laterally and posteriorly giving the scapula the appearance of a wing.
3. Since the serratus also performs superior rotation of the scapula, an action required to ________________ (abduct/adduct) the arm above the horizontal, what action would a person with a non functioning muscle not able to perform?

B. Posterior Shoulder Muscles
All muscles of the posterior shoulder act directly on the scapula or the humerus. They include: latissimus dorsi and trapezius, the two large superficial back muscles; levator scapulae and rhomboids, located deep to the trapezius; deltoid, teres major, and the rotator cuff muscles (supraspinatus, infraspinatus, teres minor, subscapularis) that surround the shoulder joint.

1. Identify the above bolded muscle in your textbook.
2. Watch your lab partner flex the arm by raising it anteriorly. ________________ is the prime flexor of the arm, with deltoid acting as ________________ (synergist/antagonist).
3. Watch your lab partner extend the arm by swinging it posteriorly. ________________ is the prime extensor of the arm with teres major and deltoid acting as ________________ (synergist/antagonist).
4. Watch your lab partner abduct the arm by swinging laterally. ________________ is the prime mover for arm abduction, with ________________ assisting.
5. Watch your lab partner return to anatomical position from the abducted position, by moving the arm toward the body. This is adduction of the arm and the prime movers are ________________ and ________________; while ________________ and subscapularis are synergists.
6. Watch as your lab partner rotates the arm. Notice that during ________________ (medial/lateral) rotation, the anterior surface of the humerus rotates toward the midline of the body and during ________________ (medial/lateral) rotation, it rotates away. For medial rotation, the prime movers are ________________ and ________________, and ________________ are pectoralis major, teres major, and deltoid. For lateral rotation, ________________ is the prime mover and infraspinatus and teres minor are ________________.
7. Some shoulder muscles connect the scapula to bones of the axial skeleton and produce movements through the sternoclavicular and acromioclavicular joints. Work with your lab partner to demonstrate the following actions of the scapula starting in anatomical position.
   a. Abduct the arm parallel to the floor, then move it anteriorly. As you do this action, the scapula is protracted. Now move your arm posteriorly as far as you can. During this action, the scapula is retracted. Protraction is done by _____________ and retraction by the rhomboids and ___________.
   b. Abduct your arm past the parallel position as if you were “raising your hand.” To do this, the scapula is rotated superiorly by the _____________. Returning your arm to anatomical position requires inferior rotation of the scapula by _________.
   c. Watch the scapula move as your partner shrugs his or her shoulders. Scapular elevation is carried out by ___________ and ___________. Scapular depression is done by ___________ and ___________.

Name the anterior trunk muscles described here. Then, for each muscle name that has a color coding circle, select a different color to color the coding circle and corresponding muscle of the figure below.

- (Pair) a major spine flexor; the name means "straight muscle of the abdomen"
- prime mover for shoulder flexion and adduction
- prime mover for shoulder abduction
- part of the abdominal girdle: forms the external lateral walls of the abdomen
- acting alone, each muscle of this pair turns the head toward the opposite shoulder besides the two abdominal muscles
- (pairs) named above, two muscle pairs that help form the natural abdominal girdle
- deep muscle of the thorax that promote the inspiratory phase of breathing
- an unpaired muscle that acts with the muscles named immediately above to accomplish inspiration
Name the posterior trunk muscles described here. Select a different color for each muscle listed and color the coding circle and corresponding muscle of the figure above.

O _____________________________________ muscle that allows you to shrug your shoulders or extend your head
O _____________________________________ muscle that adducts shoulder and causes extension of the shoulder joint
O _____________________________________ shoulder muscle that is the antagonist of the muscle just described

Muscles of the Arm
Muscles of the arm are divided into anterior and posterior compartment. The anterior compartment muscles are flexors of the arm and forearm and are innervated by the musculocutaneous nerve. The posterior compartment muscles are extensors of the arm and forearm and are innervated by the radial nerve.

A. Anterior Arm Muscles
1. Identify in your textbook the superficial biceps brachii and the two deep muscles, brachialis and coracobrachialis.
2. Place your hand on the anterior surface of your lab partner’s arm while he or she flexes the forearm. You will feel __________ __________ contract. The principal flexors of the forearm are the ___________ and the ___________.
3. Place your hand across your partner’s biceps and feel the change as he or she supinates the forearm. Biceps brachii is also the prime mover for forearm ______________. Coracobrachialis is a __________ during adduction and flexion of the arm.

B. Posterior Arm Muscles
1. Identify in your textbook the only muscle in the posterior compartment of the arm, the triceps brachii.
2. Extend your forearm and notice that triceps brachii is the __________ of the forearm.
3. Triceps brachii also acts at the shoulder as a synergist during ___________ and ____________ of the arm.

Muscles of the Forearm
The muscles of the forearm are divided into an anterior and a posterior compartment

A. Anterior Forearm Muscles
The principal actions of anterior compartment muscles are flexion of the wrist and fingers, and pronation of the forearm. Most of these muscles are innervated by the median nerve.
1. Identify in your textbook the following muscles: pronator teres, flexor carpi radialis, palmaris longus, flexor carpi ulnaris, flexor digitorum superficialis, flexor digitorum profundus, and pronator quadratus.
2. The pronator quadratus is the prime mover for forearm pronation while the pronator teres acts as a __________ (antagonist/synergist) for this action. Demonstrate this action on your own forearm.
3. From the anatomical position, have your lab partner flex his or her wrists while you observe. Flexor carpi ulnaris, flexor carpi radialis, and flexor digitorum superficialis are the ____________ for wrist flexion.
4. In addition to wrist flexion, the flexor carpi radialis ____________ the wrist, and the flexor carpi ulnaris ____________ the wrist. From the anatomical position, have your lab partner perform these actions while you observe. Notice that during ____________, the hand is bent away from the body in the coronal plane. During ____________, the wrist is bent toward the body.
5. Flexion of the digits is the primary function of the __________ (fingers), __________ (fingers), and the __________ (thumb). Flex your thumb and fingers by making a tight fist. Verify that when you perform this action, the __________ (knuckles) joints and the interphalangeal (fingers and thumb) joints are flexed.
B. Posterior Forearm Muscles

Posterior compartment muscles extend the wrist and fingers, and supinate the forearm. All these muscles are supplied by the radial nerve.

1. Identify in your textbook the following muscles: **brachioradialis, extensor carpi radialis, extensor carpi ulnaris, and extensor digitorum**

2. Place your forearm in the midprone position. From this position, flex your forearm. The __________________ is a strong forearm flexor in this position.

3. Watch your lab partner extend his or her wrists. The prime mover for wrist extension is _______ _______. Extensor carpi radialis longus, extensor carpi radialis brevis, and extensor carpi ulnaris act as _______ (synergist/antagonist).

4. In addition to wrist extension, the extensor carpi radialis brevis and longus ___________ (abduct/adduct) the wrist and the extensor carpi ulnaris ______________ the wrist. Perform these actions and observe the muscles at work.

5. From the closed fist position, open your hand to expose the palmar surface. This action requires you to __________ your fingers from the flexed position. Extensor digitorum extends all four __________, extensor indicis extends the __________ finger, and extensor digiti minimi extends the ______.

6. Stand in the anatomical position and perform the following thumb actions.
   i. Bend your thumb, in the coronal plane, toward the midline of the body. This is thumb flexion, a function of flexor pollicis longus in the __________ forearm.
   ii. From the flexed position, move your thumb, in the coronal plane, away from the midline of the body (back to anatomical position). This is thumb extension, which is a function of extensor pollicis longus and brevis in the __________ forearm.

---

**Muscles of the Arm**

1. Name the muscles described here. Then select different colors for each muscle provided with a color-coding circle and use them to color in the coding circles and corresponding muscles on Figure 6-7.

   - Wrist flexor that follows the ulna
   - Muscle that extends the fingers
   - Muscle that flexes the fingers
   - Muscle that allows you to bend (flex) the elbow
   - Muscle that extends the elbow
   - Powerful shoulder abductor, used to raise the arm overhead
Muscles of the Gluteal Region
The gluteal region extends from the iliac crest, superiorly, to the inferior border of the gluteus maximus, inferiorly. The **gluteus maximus**, **gluteus medius**, and **gluteus minimus** collectively form a mass of muscle tissue known as the buttock. These muscles are important extensors and abductors of the thigh. They also stabilize the pelvis and thigh while standing erect.

1. Identify the above bolded muscles in your textbook.
2. Perform lateral and medial rotation of the thigh while your lab partner observes. Verify that during lateral rotation, the ___________________ (anterior/posterior) surface of the femur rotates away from the midline of the body; during medial rotation, it rotates toward the midline.
3. The gluteus maximus is a prime mover for thigh ____________. Perform this action by standing from the seated position. The _______ _________ is the prime mover for thigh abduction. Gluteus ____________ is a synergist for this action. Perform the movement.
4. The gluteus ____________ and gluteus ____________ are important muscles for locomotion because they stabilize the pelvis during walking and running. Stand in anatomical position and palpate the left superolateral corner of the gluteal region.
   - Raise your right foot off the ground. As you do this, you can feel the left gluteus ____________ contracting to prevent the right side of the pelvis from sagging. When the right limb is raised, the unsupported right side of the pelvis tends to tilt inferiorly. The left gluteal muscles steady the pelvis by pulling the left side inferiorly. This prevents the right side from sagging, allowing the right foot to clear the ground while walking.

Muscles of the Thigh
The thigh contains three main muscle groups. The anterior thigh muscles act primarily to flex the thigh and extend the leg; the medial thigh muscles act primarily to adduct and flex the thigh; and the posterior thigh muscles extend the thigh and flex the leg.

A. Anterior Thigh Muscles
The anterior thigh is dominated by four muscles, known collectively as the **quadriceps femoris** (rectus femoris, vastus lateralis, vastus medialis, and vastus intermedius). Other muscles include the **ilipsoas**, **sartorius**, and **tensor fasciae latae**.

1. Identify the above bolded muscles in your textbook. 
2. Flex your thigh. Iliopsoas is the principal _______ of the thigh, with rectus femoris, sartorius, and tensor fasciae latae acting as ____________ (synergist/antagonist)
3. Sit on a lab stool with your legs and feet hanging freely, then extend your leg so it is elevated to a horizontal position. The _______________ muscles are the prime movers for extension of the leg.
4. From the sitting position, cross your legs. ____________ is the muscle responsible for acting as a synergist in allowing the body to sit cross legged. Working with your lab partner, verify that during this action all of the following movements are performed (flexion/extension/abduction/adduction/lat rotation/medial rotation):
   a. ____________ of the thigh
   b. ____________ of the thigh
   c. ____________ of the thigh
   d. ____________ of the leg

B. Medial Thigh Muscles
1. Identify in your textbook the following medial thigh muscles: **adductor longus**, **adductor magnus**, **adductor brevis**, and **gracilis**.
2. Sit on a lab stool with your feet hanging freely and your thigh separated, as if you were sitting on a horse. With your hands on your medial thighs, attempt to draw them together against the resistance of the seat. As you perform this action (______________________ (adduction/abduction) of the thighs), you will feel your medial thigh muscle ____________ (relax/contract).

C. Posterior Thigh Muscles
1. Identify in your textbook the hamstrings: the **semitendinosus**, **seminembranosus**, and **biceps femoris**.
2. The posterior thigh muscles are the prime movers for ____________ (extension/flexion) of the thigh and ____________ (extension/flexion) of the leg. Perform these actions while considering the locations of these muscles.
   - The posterior thigh muscles are assisted by gluteus maximus and adductor magnus during thigh ____________ (flexion/extension), and by the gastrocnemius in the posterior leg during leg ____________ (flexion/extension).

Muscles of the Leg
The leg is divided into three muscular compartments.

A. Anterior Leg Muscles
The anterior compartment contains muscles that dorsiflex the foot and extend the toes. They are innervated by the deep fibular (peroneal) nerve.

1. Identify the **tibialis anterior** and the **extensor digitorum longus** in your textbook.
2. Sit on a lab stool so that your feet are hanging freely. From this position, dorsiflex your feet (Dorsiflexion is a bending action at the ankles during which the feet and toes are directed superiorly). Note that when you dorsiflex the feet, the toes are usually in the ____________________________ (extended/flexed) position. Toe extension is a function of the ____________________________ (lateral four toes) and extensor hallucis longus (the big toe).

B. Lateral Leg Muscles
The lateral compartment muscles evert the foot and are supplied by the superficial fibular (peroneal) nerve.
1. Identify the peroneus longus and the peroneus brevis in your textbook.
2. Sit on a lab stool with your feet hanging freely. Evert your foot and verify that the sole of the foot turns _____________ (medially/laterally) during this action.

C. Posterior Leg Muscles
In the posterior compartment, the muscles plantarflex the foot and flex the toes. They are innervated by the tibial nerve.
1. Identify the gastrocnemius, the soleus, tibialis posterior and the popliteus in your textbook.
2. Stand in an erect position with both feet firmly on the floor. In this position, the knees are fully extended and in the “locked” position. Flex your right leg by lifting it off the floor. When you perform this movement, the _____________ “unlocks” the knee by rotating the femur laterally so that the leg can be flexed.
3. Sit on a lab stool and extend your right leg so that it is parallel to the floor. Your right foot is off the floor, but in this position it is fully extended and “locked.” Flex your right leg so that it rests on the floor or hangs freely. When you perform this movement, the popliteus “unlocks” the knee by rotating the tibia _____________ (medially/laterally).
4. Sitting on a lab stool with your feet hanging freely, plantar flex your feet. The ____________________________ and ____________________________ are the prime movers for foot plantar flexion.
5. Stand in an erect position with your feet firmly on the floor. Lift your heels off the floor by standing on your toes. Your feet are plantar flexed. Have your lab partner assume a crouched position, as if he or she is in the starting blocks and about to start a race, then push off with the back leg to start the “race.” The push-off action requires ______________. ____________________________ of the foot.
6. Sit on a lab stool with your feet hanging freely. Invert your foot and verify that the sole of the foot turns ______________ (medially/laterally) during this action. The muscle responsible for foot inversion is the ______________ ______________.

Name the muscles described here. Select a different color for each muscle provided with a color coding circle, and use it to color the coding circles and corresponding muscles on the figure below. Complete the illustration by labeling those muscles provided with leader lines.

_____________________________ hip flexor, deep in pelvis
O ___________________________ used to extend the hip when climbing stairs; forms buttock
O ___________________________ “toe dancer’s” muscle
O ___________________________ inverts and dorsiflexes the foot
O ___________________________ allows you to draw your legs to the midline of your body, as when standing at attention
O ___________________________ muscle group that extends the knee
O ___________________________ muscle group that extends the thigh and flexes the knee
O ___________________________ smaller hip muscle commonly used as an injection site
O ___________________________ muscle group of the lateral leg; plantar flex and evert the foot
Identify each numbered muscles in the previous figure by placing the numbers in the blanks next to the following muscle names. Then select different colors for each muscle and color the coding circles and corresponding muscles on the previous figure.

1. ______ O gluteus maximus
2. ______ O adductor muscle
3. ______ O gastrocnemius
4. ______ O latissimus dorsi
5. ______ O deltoid
6. ______ O semitendinosus
7. ______ O trapezius
8. ______ O biceps femoris
9. ______ O triceps brachii
10. ______ O external abdominal oblique
11. ______ O gluteus medius
Identify the numbered muscles in the figure below by placing the numbers in the blanks next to the following muscle names. Then select a different color for each muscle provided with a color coding circle and color the coding circle and corresponding muscle.

1. __________ Orbicularis oris
2. __________ Pectoralis major
3. __________ External oblique
4. __________ Sterno-ocleidomastoid
5. __________ Biceps brachii
6. __________ Deltoid
7. __________ Vastus lateralis
8. __________ Frontalis
9. __________ Rectus femoris
10. __________ Sartorius
11. __________ Gracilis
12. __________ Adductor Group
13. __________ Peroneus longus
14. __________ Temporalis
15. __________ Orbicularis oculi
16. __________ Zygomaticus
17. __________ Masseter
18. __________ Vastus medialis
19. __________ Tibialis anterior
20. __________ Transversus abdominis
21. __________ Tensor fasciae latae
22. __________ Rectus abdominis

Figure 6-8