Lesson 3: HUMAN ANATOMY

LEARNING ACTIVITY 1: COMPONENTS OF THE CARDIOVASCULAR SYSTEM
1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________
7. ____________________________

LEARNING ACTIVITY 2: THE BREATHING PROCESS
1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________

LEARNING ACTIVITY 3: REGIONS OF THE DIGESTIVE SYSTEM
Pharynx ____________________________
Mouth ____________________________
Large intestine ____________________________
Esophagus ____________________________
Stomach ____________________________
Small intestine ____________________________

LEARNING ACTIVITY 4: THE DIGESTIVE SYSTEM AT WORK
1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________
LEARNING ACTIVITY 5: JOINTS AND THEIR CORRESPONDING ACTIONS
1. ____________________ 2. ____________________
1. ____________________ 2. ____________________
1. ____________________ 2. ____________________
1. ____________________ 2. ____________________
1. ____________________ 2. ____________________

LEARNING ACTIVITY 6: MOVEMENT TERMINOLOGY
1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________

LEARNING ACTIVITY 7: COMPONENTS AND FUNCTIONS OF THE NERVOUS SYSTEM
1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________

LEARNING ACTIVITY 8: ANATOMICAL STRUCTURE OF NEURONS
1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________

LEARNING ACTIVITY 9: RECEPTORS OF THE NERVOUS SYSTEM
Golgi Tendon Organs
1. ____________________
2. ____________________
3. ____________________
4. ____________________

Muscle Spindles
1. ____________________
2. ____________________
3. ____________________
4. ____________________
LEARNING ACTIVITY 10: MUSCLE-FIBER TYPES

1. **Type I**: Slow-twitch; small amount of mitochondria; fatigue-resistant; used during anaerobic metabolism; used during sports such as cross-country running

2. **Type IIx**: Fast-twitch; also known as fast-glycolytic; small amount of mitochondria; less resistant to fatigue than type I fibers; largest and fastest fibers; limited capacity for aerobic metabolism

3. **Type IIa**: Fast-twitch; can be trained to be more oxidative or glycolytic; can only sustain activity for less than 30 seconds

LEARNING ACTIVITY 11: THE ROLE OF CONNECTIVE TISSUE

1. 

2. 

3. 

4. 

5. 

6. 

LEARNING ACTIVITY 12: THE SHOULDER GIRDLE IN ACTION

1. 

2. 

3. 

4. 

5. 

6. 

LEARNING ACTIVITY 13: THE SHOULDER COMPLEX

1. 

2. 

3. 

4.

LEARNING ACTIVITY 14: FOREARM AND ELBOW MUSCLES

1. 

2. 

3. 

4.

LEARNING ACTIVITY 15: TRUNK MUSCLES AT WORK

1. 

2. 

3. 

4.
LEARNING ACTIVITY 16: HIP MUSCLES AND THEIR ACTIONS
1. Gluteus maximus: Extension, external rotation, adduction
2. Gracilis: External rotation, adduction, flexion
3. Rectus femoris: Abduction, flexion, internal rotation
4. Tensor fasciae latae: Flexion, abduction, internal rotation
5. Pectineus: Flexion, adduction, external rotation
6. Biceps femoris: Extension, abduction, adduction, external rotation
7. Semitendinosus: Extension, adduction, slight internal rotation
8. Piriformis: Adduction, flexion, external rotation

LEARNING ACTIVITY 17: THE KNEE JOINT
1. 
2. 
3. 
4. 

LEARNING ACTIVITY 18: THE ANKLE AND FOOT
1. 
2. 
3. 
4. 

LEARNING ACTIVITY 19: HORMONES AND THEIR FUNCTIONS
1. 
2. 
3. 
4. 
5. 
6. 
Lesson 4: EXERCISE PHYSIOLOGY

LEARNING ACTIVITY 1: CONCEPTS OF PHYSICAL FITNESS
1. 
2. 
3. 
4. 
5. 

LEARNING ACTIVITY 2: PHYSIOLOGY OF THE CARDIORESPIRATORY SYSTEM
1. 
2. 
3. 
4. 

LEARNING ACTIVITY 3: ENERGY SYSTEMS
1. 
2. 
3. 
4. 
5. 
6.
LEARNING ACTIVITY 4: RESPIRATORY EXCHANGE RATIO

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

LEARNING ACTIVITY 5: ACUTE AND CHRONIC RESPONSES TO AEROBIC EXERCISE
1._____________________________________________________________________
2._____________________________________________________________________
3._____________________________________________________________________
4._____________________________________________________________________
5._____________________________________________________________________

LEARNING ACTIVITY 6: HORMONAL RESPONSES TO EXERCISE
1._____________________________________________________________________
2._____________________________________________________________________
3._____________________________________________________________________
4._____________________________________________________________________

LEARNING ACTIVITY 7: ENVIRONMENTAL CONSIDERATIONS WHEN EXERCISING
1._____________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

2._____________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

3._____________________________________________________________________

_________________________________________________________________________

________________________

4._____________________________________________________________________

_________________________________________________________________________

________________________
LEARNING ACTIVITY 1: PHYSICS AND HUMAN MOVEMENT

1. 

2. 

3. 

4. 

LEARNING ACTIVITY 2: THE BALANCED AND MOVING BODY

1. 

2. 

3. 

4. 

5. 
LEARNING ACTIVITY 3: EVALUATING MOVEMENTS OF THE HIP
1. 

2. 

3. 

LEARNING ACTIVITY 4: EVALUATING MOVEMENTS OF THE KNEE
1. 

2. 

LEARNING ACTIVITY 5: EVALUATING MOVEMENTS OF THE ANKLE
1. 

2. 

LEARNING ACTIVITY 6: REVIEW OF THE LOWER EXTREMITY
1. 

2. 

3. 

4. 

5. 

6. 

LEARNING ACTIVITY 7: RESTORE THE CORE
1. 

2. 

3. 

4. 

5. 

LEARNING ACTIVITY 8: THE SHOULDER COMPLEX IN ACTION
1. 

2. 

3. 

4. 

5. 

6.
LEARNING ACTIVITY 9: SPECIAL POPULATIONS
Lesson 6: NUTRITION

LEARNING ACTIVITY 1: NUTRIENTS
1. 
2. 
3. 
4. 
5. 
6. 
7. 

LEARNING ACTIVITY 2: FEDERAL GUIDELINES
1. 
2. 
3. 
4. 

LEARNING ACTIVITY 3: FOOD LABELS
1. 
2. 
3. 

LEARNING ACTIVITY 4: DETERMINING RMR

Answer: ____________________________
LEARNING ACTIVITY 5: WEIGHT-LOSS STRATEGIES
1. 
2. 
3. 
4. 
5. 

LEARNING ACTIVITY 6: NUTRIENTS AND EXERCISE
1. 
2. 
3. 

LEARNING ACTIVITY 7: NUTRITION AND SPECIAL POPULATIONS
1. 
2. 
3. 
4. 

LEARNING ACTIVITY 8: SCOPE OF PRACTICE
1. 
2. 
3. 
4.
Lesson 7: PHYSIOLOGY OF TRAINING

LEARNING ACTIVITY 1: ACUTE RESPONSES TO EXERCISE
1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________
5. __________________________________________
6. __________________________________________

LEARNING ACTIVITY 2: FUEL SOURCES
1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________

LEARNING ACTIVITY 3: THERMOREGULATION
__________________________________________
__________________________________________
__________________________________________
__________________________________________
__________________________________________
__________________________________________

LEARNING ACTIVITY 4: CHANGES IN THE CARDIORESPIRATORY SYSTEM
1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________
5. __________________________________________
LEARNING ACTIVITY 5: TRAINING PRINCIPLES
1. 
2. 
3. 
4. 

LEARNING ACTIVITY 6: MUSCULAR ADAPTATIONS
1. Increase in the number of actin and myosin filaments
2. Decrease in the levels of the sarcoplasm
3. Increase in the amount of lactate that is produced
4. Increase in the body's ability to buffer lactic acid
5. Increase in the levels of testosterone and growth hormone
6. Decrease in the production of new muscle fibers
7. Increase in the utilization of type I fibers
8. Increase in neuromuscular adaptations

LEARNING ACTIVITY 7: STRETCHING TECHNIQUES
1. 
2. 
3. 
4. 
5. 