Topic/Objectives: 7-1 Structure of a Skeletal Muscle; (1) Identify levesl of organization within muscle tissue; (2) Identify the parts of a sarcomere; (3) Describe the anatomy of skeletal muscle	**Name:**
	Date:
	Period:

Essential Question: What is the structure and function of muscle tissue?

Questions:	**Notes:**
	All movements require _____, which are organs that use chemical energy to contract. The three types of muscle in the body are skeletal, _____, and cardiac muscle. Each muscle is an organ, comprised of skeletal muscle tissue, connective tissues, _____ tissue, and blood.
	Connective Tissue Coverings ◦ Layers of dense connective tissue, called _____, surround and separate each muscle. ◦ This connective tissue extends beyond the ends of the muscle and gives rise to _____ that are fused to the periosteum of bones. ◦ Sometimes muscles are connected to each other by broad sheets of connective tissue called _____. ◦ The layer of connective tissue around each whole muscle is the _____; the _____ surrounds individual bundles (fascicles) within each muscle; and each muscle cell (fiber) is covered by a connective tissue layer called _____.

	Skeletal Muscle Fibers
	◦ Each _____ fiber is a single, long, cylindrical muscle cell.
	  ◦ Beneath the _____ (cell membrane) lies sarcoplasm (cytoplasm) with many mitochondria and nuclei; the sarcoplasm contains myofibrils.
	  ◦ Myofibrils are separated into compartments called _____ that contain thick filaments and thin filaments.
	  ◦ Thick filaments or myofibrils are made up of the protein _____.

- Thin filaments of myofibrils are made up of the protein _____.
- The organization of these filaments produces _____.

- A _____ extends from Z line to Z line.
  - _____ (light bands) made up of actin filaments are anchored to Z lines.
  - _____ (dark bands) are made up of overlapping thick and thin filaments.
  - In the center of A bands is an H Zone, consisting of myosin filaments only.
- Beneath the sarcolemma of a muscle fiber lies the _____ _____ (endoplasmic reticulum), which is associated with transverse (T) tubules (invaginations of the sarcolemma).
  - Each _____ lies between two cisternae of the sarcoplasmic retiulum and is open to the outside of the muscle fiber.
  - The sarcoplasmic reticulum and transverse tubules activate the _____ _____ _____ when the fiber is stimulated.

Summary: