

Topic/Objectives: 7-2 Skeletal Muscle Contraction (Day 2); (1) Identify the major events of skeletal fiber contraction; (2) Describe the energy source for contraction, and the result in the absence of this source	Name:
	Date:
	Period:

Essential Question: How does muscle tissue contract to move the body?

Questions:	Notes: Energy Sources for Contraction <ul style="list-style-type: none"> ○ Energy for contraction comes from molecules of _____. This chemical is in limited supply and so must often be regenerated. ○ _____, which stores excess energy released by the mitochondria, is present to regenerate ATP from ADP and phosphate. ○ Whenever the supply of ATP is sufficient, _____ promotes the synthesis of creatine phosphate. ○ As ATP decomposes, the energy from creatine phosphate can be transferred to _____ molecules, converting them back to ATP.
	Oxygen Supply and Cellular Respiration <ul style="list-style-type: none"> ○ The early phase of cellular respiration yields few molecules of ATP, so muscle has a high requirement for oxygen, which enables the complete breakdown of glucose in the _____. ○ _____ in red blood cells carries oxygen to muscle. ○ The pigment _____ stores oxygen in muscle tissue.
	Oxygen Debt <ul style="list-style-type: none"> ○ During rest or moderate activity, there is enough oxygen to support _____ respiration. ○ Oxygen deficiency may develop during strenuous exercise, and lactic acid accumulates as an end product of _____ respiration. <ul style="list-style-type: none"> ○ _____ diffuses out of the muscle cells and is carried in the bloodstream to the liver. ○ Oxygen debt refers to the amount of oxygen that liver cells require to convert the accumulated lactic acid into _____, plus the amount that muscle cells need to resynthesize ATP and creatine phosphate to their original concentrations. ○ Repaying oxygen debt may take _____ hours.

