Unit 2: Tissues

Lesson 7: *Muscle tissue (Part 1)- Key*

Activity 1 (20'): Muscle tissue introduction

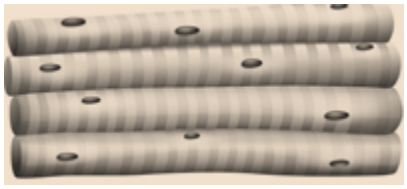
Watch the following video https://www.youtube.com/watch?v=rMcg9YzNSEs first individually and then in pairs answer these questions

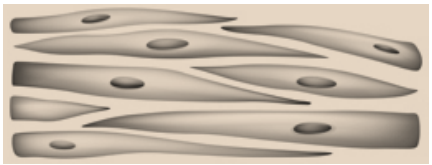
1. How many muscles are there in a human body?
   The human body has at least 650 skeletal muscles and as many as 840 depending on what counts as a muscle. Some sources count complex muscles as a single muscle, while others count complex muscles' individual parts as separate muscles

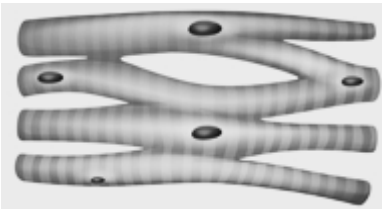
2. What are the main functions of the muscular system?
   The two major functions of the muscular system are the ability to make the body move and the posture of the body. Others are respiration, production of body heat, constriction of internal organs, communication, heart beat
3. How are nervous tissue and muscle tissue interrelated, and why are they important to animals?
   Nervous tissue provides the impulse for the motor functions of the muscle tissue.
4. What are the major properties of muscle tissue?
   Excitability, contractility, extensibility,elasticity.
5. What is the difference between involuntary and voluntary muscles?
   An involuntary muscle can't be controlled, while a can be controlled through stimuli, such as movement.

Activity 2 (30'): Types of muscle tissue

Step 2 (15'): Label the images and complete the grid







A:___Striated_____ B:_Smooth_____ C:_____Cardiac_____

Unit 2- Lesson 7: Muscle Tissue (Part 1) -Key

Muscle type	Striated	Cardiac	Smooth
Location	Attached to bone	Heart	Covers the internal organs
Function	movement	Heart beat	Constriction etc…
Voluntary/Involuntary mode	Voluntary	Involuntary	Involuntary
Shape and characteristics	Striated-light and dark bands. Many nuclei, peripheral and mitochondria Cells are long and slender	Branching Striated-light and dark bands. Many nuclei, peripheral	Non striated. One nucleus, central Spindle shape
Contraction mode	Slow to fast Forceful	Slow and continous	Very slow Low force