Today – February 8th

- **Intro** – Pick-up Muscle Mechanics Coloring Sheet; warm-ups out
- **Advanced** – Pick-up Chapter 16 WS & textbook; submit Pt evals if done
- **Reminders n' Stuff:**
  - SLC On-Line Testing is on going
  - NO CLUB MED next Wednesday AM
    - Teacher Offerings next Weds.
    - Bring laptop/tablet tomorrow
    - Job Shadow needs?

Today – February 8th

Introduction to Sports Medicine

- **Warm-Up:** Mechanics & Fibers Review
- Muscle Physiology Exam *officially* Monday
- **Lecture:** Finish Injuries and Conditions
- If time, begin coloring Mechanics, Energy & Fibers Physiology Coloring Sheet

Advanced Sports Medicine

- BSD ATs not available until March
- Continue research on assigned injury as needed on own
- **Assignment:** Begin Chapter 16 Worksheet

Warm-Up (No notes, no blanks)

1. A contraction in which the muscle *shortens* is called a/an _____ contraction.
2. What muscle fiber type is utilized during a *marathon*? *100m dash*? *weight lifting*?
3. What happens anatomically when a muscle hypertrophies? That is, how does a muscle adapt *structurally* to meet the demands placed on it?
4. Is an athlete born or made? Explain.
5. At what point(s) in its ROM is the force generated by a muscle the *greatest*?
6. Provide 2 characteristics for each of the three *muscle fiber types*.

Warm-Up (No notes, no blanks)

1. Muscle *shortens*? concentric contraction
2. Fiber type used: *Marathon*? Slow-Twitch (Type I) *100m dash*? Fast-Twitch (Type IIb) *Weight lifting*? Fast-Twitch (Type IIa)
3. When a muscle hypertrophies? More *myofibrils* (not muscle fibers) are produced
4. Is an athlete born or made? Both (& then some…)
5. Point in a mm's ROM the force is the *greatest*? The *middle* where there is ample overlap between thick & thin filaments.
6. Characteristics of *muscle fiber types:*
   - **Type I** – Aerobic; can utilize other sources of energy besides CHOs; endurance; red
   - **Type IIa** – More resistant to fatigue than Type IIb, but not as efficient as Type I; not as much myoglobin; red
   - **Type IIb** – Most abundant fiber; fatigues easily; anaerobic (can only use glucose to produce energy); power; white