List of exam topics and avenues of study.

Exam date: Tuesday, 26 April 2016. There will be a review after school on Monday for anyone who would like to attend.

1. Microscope anatomy and proper use

- calculation of total magnification

- field of vision and light intensity changes with greater magnification

2. Proper wet mount technique

- why use a cover slip as it relates to the depth of field (remember the threads?)

- why contrast dyes are necessary

3. mitochondria structure (inner & outer membrane, matrix, cristae, inner membrane space)

4. chloroplast structure from simulation and photosynthesis reactions (light-dependent & light-independent, or light reaction & Calvin Cycle).

5. chemical reactions for cellular respiration and photosynthesis and how they’re related

6. know what is needed to start each “third” of the cellular respiration process as well as what is produced, or handed off to the next “third”, how many ATP are produced, if it is an aerobic/anaerobic step, and what any byproducts are (CO2, H2O). Be able to draw out the entire process.

7. what organisms does fermentation occur in? Why it occurs? Which of the steps of cellular respiration does it occur in?

8. what becomes the terminal electron acceptor in fermentation?

9. from the Everest video and related reflection, know how oxygen, glucose, and cellular respiration are closely connected in this dangerous environment.

10. the muscle fatigue lab (Mr. F’s revenge lab) concepts

11. the yeast lab and cellular respiration

Remember, there are a number of Cornell note sets you took as well that should be used to review for this exam that will also be material that you will be responsible for.