



Cellular respiration is one of the most important topics that we will cover in IB Biology. In fact, it is one of four topics that typically dominate the exams at the end of year 2. Since we cover this early in year one, it is important that you find a way to imprint this in your memory. There are several enzymatic reactions that you must memorize for this metabolic process, so the more visual you make this for yourselves, the better chance you have of placing it in your long term memory storage.

So why a video you may ask? Every time I teach this topic, I look for videos that will help to explain this process to you. I have yet to find one that isn't lame and boring. If they can't sustain my attention throughout the video how will it sustain yours?! So I am throwing out the challenge. In small groups (2-3) you need to choose one of the topics below for your video project. My recommendation is that you do one that you struggle the most with to help you learn the information better.

- 1) Glycolysis and Anaerobic Respiration (best for an SL group)
- 2) Overview of Aerobic Respiration (best for an SL group)
- 3) Glycolysis detailed and outline of potential pathways (HL and option)
- 4) Once in the Mitochondria (Link Step, Krebs Cycle and Electron Transport (HL and option)
- 5) Chemiosmosis in the ETC (detailed account of how ATP formation occurs (HL and option)

You will need to make storyboards that detail the content you plan to cover. All members of the group need to be involved in this process. It is not acceptable to divide up tasks where one person writes the plan (aka learns the content) and one person is in charge of video special effects. You may divide up the film/editing tasks, but all need to be involved in storyboarding the video.

Here are a couple of sites for online storyboarding:

<http://www.storyboardthat.com/>

<http://www.atomiclearning.com/storyboardpro>

Feel free to explore and try out a new iPad app for this part of the assignment. You may also do these by hand or use a simple Google presentation/doc (sharable).

You are not bound by formatting, but I want to see the plan ahead of filming.

Consider your audience: My only requirements are that it can be uploaded to Youtube and shared with Ms. McGee and your grandmother.

You may try [stopmotion](#), screencasting using a keynote/ppt/prezi presentation (like my [bio crush](#)), or a full on “movie”. If there is a style of video out there that engages you such as the [RSA Animate Series](#) or the [ASAP Science Series](#), feel free to explore.

Now for the important part:

You will be graded on how well you present (READ TEACH) the information you have chosen. I will be using a standard IB essay rubric to assess the extent of your understanding of the required content. In addition to this, I will be assessing how effective you are in communicating the content through your video. It might be helpful to watch some educational videos on Youtube to identify strategies that engage you and those that don't. How long should your video be? What visuals are you using? Voice inflection? Remember that creativity that takes away from the focus actually counts against you, so be sure to use your creativity to enhance the learning experience through engagement.

Looking forward to your screeners...For Award Consideration only of course! :-)