Amazing Cells

1. Write down at least 3 observations about what cells look like from the “Inner Life of the Cell” video. Include at least one new thing that you learned

Go to the following link: http://learn.genetics.utah.edu/content/cells

Go to the “Inside a Cell” interactive.

1. In the Cytoskeleton - what are vesicles?
2. Why does the mitochondria have those frequent bursts of light?
3. What is unique about the Mitochondria’s DNA?
4. Why does the Endoplasmic Reticulum need a large surface area?

Watch the “Fight or Flight” video.

1. What are 3 effects of the Fight or Flight Response in your body.

Go to the “Dropping Signals” Interactive.

1. Record the effect of each stimulus on Leaf Parenchyma, Muscle, and Cancer cells.

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| **Type of Cell** | **Light** | **Nitric Oxide** | **Cytokine/GF** | **Hormones** |
| Leaf Parenchyma |  |  |  |  |
| Muscle  |  |  |  |  |
| Cancer |  |  |  |  |

1. How could this information be used to treat cancer?
2. Would any of these treatments affect your other cells (not just the cancerous cells)?

Click on the “Endosymbiotic Theory.”

1. What do you think a theory is? Describe in your OWN words.
2. What is the definition of a theory in science?
3. What are archea?
4. Summarize the Endosymbiotic Theory in your own words.

Go to “Real Cell Videos”

Click on “A Video Tour of Cell Motility.” The menu at the top of the screen leads you to several different videos. Watch at least 5 and list some observations below.

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| Video | Observations |
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Go to: <http://www.hhmi.org/biointeractive/eukaryotic-cell-cycle-and-cancer> and click on “Biology of Cells.” Watch and least 5 videos and list some observations or things you learned below.

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| Video | Observations |
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