Biomedical Science I Summer Assignment 2018: Skin Cancer Investigation

Skin cancer is the most common type of cancer in the United States. It is estimated that 1 in 5 people will get skin cancer. Sustaining five or more sunburns in youth increases lifetime melanoma risk by 80 percent. How are you going to keep yourself from being part of that statistic?

This is a very important summer assignment for your health. I would suggest that you do it early on in the summer! You won't see the effects of the damage until later in life.

Go to the following websites and answer the following questions on a google doc titled SkinCancerInvestigation and share it with me by the first day of class. Do not put your name in the document title. COPY AND PASTE THE QUESTIONS INTO THE GOOGLE DOC.

To navigate this website, go up to menu and click the links from the drop down menu


http://sciencenetlinks.com/esheets/sunburn-sunscreen-and-cancer/ (You will need to click on the links within this site)

1. What is melanin and what is its role in the epidermis?
2. Explain how the sun’s rays are both beneficial and harmful to us as humans (not plants). List several examples.
3. Explain the difference between UVA and UVB rays. Do they affect your skin differently?
4. What time of day are the UV rays most intense?
5. How do UV rays affect cell division?
6. Why do some people have a greater chance of developing skin cancer compared to others? List several reasons.
7. How can where you live increase your chances of developing skin cancer?
8. Create a table summarizing the 3 main types of skin cancer. In your table include characteristics, risk factors, and image of what each type looks like, and any other information you think is important.
9. How is SPF 2 sunscreen different than SPF 30? SPF quantifies the protection against which UV ray?
10. Using the last website, determine your skin type, UV index (Toronto is the closest latitude to us), and the time to burn when wearing your normal SPF on a typical sunny day. Input all of the information into the blue box.
11. Using the information gained in the activity above, write a brief summary of the steps you personally should take before going out into the sun in each location and why. If it includes sunscreen, tell me what type, how you are going to apply, and how often you are going to reapply.

* You will need to bring in your sun protection regimen of choice for an experiment during the 2nd week of school. We will compare how well you did at protecting your skin to other students.