

Sun Exposure

Lesson Title: Sunburn, Sunscreen, and Cancer

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Name: _____



Follow the directions on your Sunburn, Sunscreen, and Cancer student E-Sheet to get the information you need to complete the tables on this sheet.

Sunburn, Sunscreen, and Cancer E-Sheet:

<http://www.sciencenetlinks.com/Esheet.cfm?DocID=203>

Find the erythemal UV rating for your location and three others from around the globe. Pick sites and dates that might be relevant to your life (e.g., Tucson, Arizona, in March for spring training; Orlando, Florida, in July for family vacations). Calculate your safe exposure time in the sun using different types of sunscreen.

Type	Sunburn	Tan	Characteristics
I	always	never	pale skin, freckles, blond or red hair, blue or green eyes
II	usually	sometimes	White skin, blond hair, blue or green eyes
III	seldom	usually	White skin, usually dark hair and brown eyes
IV-VI	never	always	brown to dark skin, brown or black hair, brown eyes

<u>Location</u> <u>Sunny</u>	<u>Sunscreen</u> <u>Factor</u>	<u>Date</u>	<u>Erythemal</u> <u>UV</u>	<u>Skin</u> <u>Type</u>	<u>Time in Sun</u>
<i>E.g. Boulder, CO</i>	<i>10</i>	<i>June 10</i>	<i>9.6</i>	<i>II</i>	<i>1 h 50 m</i>
City 1 _____	1				
City 1 _____	10				
City 1 _____	20				
City 1 _____	30				
City 2 _____	1				
City 2 _____	10				
City 2 _____	20				
City 2 _____	30				
City 3 _____	1				
City 3 _____	10				
City 3 _____	20				
City 3 _____	30				
City 4 _____	1				
City 4 _____	10				
City 4 _____	20				
City 4 _____	30				

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Try this again and see what the factors are when the sun is behind clouds.

<u>Location</u> <u>Cloudy</u>	<u>Sunscreen</u> <u>Factor</u>	<u>Date</u>	<u>Erythemat</u> <u>UV</u>	<u>Skin</u> <u>Type</u>	<u>Time in Sun</u>
<i>E.g. Boulder, CO</i>	10	<i>June 10</i>	9.6	<i>II</i>	<i>1 h 50 m</i>
City 1 _____	1				
City 1 _____	10				
City 1 _____	20				
City 1 _____	30				
City 2 _____	1				
City 2 _____	10				
City 2 _____	20				
City 2 _____	30				
City 3 _____	1				
City 3 _____	10				
City 3 _____	20				
City 3 _____	30				
City 4 _____	1				
City 4 _____	10				
City 4 _____	20				
City 4 _____	30				

Compare your summary to the other students in the class. Do they differ? Why or why not?

How do the cloud conditions affect the time in the sun?

What factors made each person's results different?

According to your research, what locations allow a person to be out in the sun the longest?

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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.