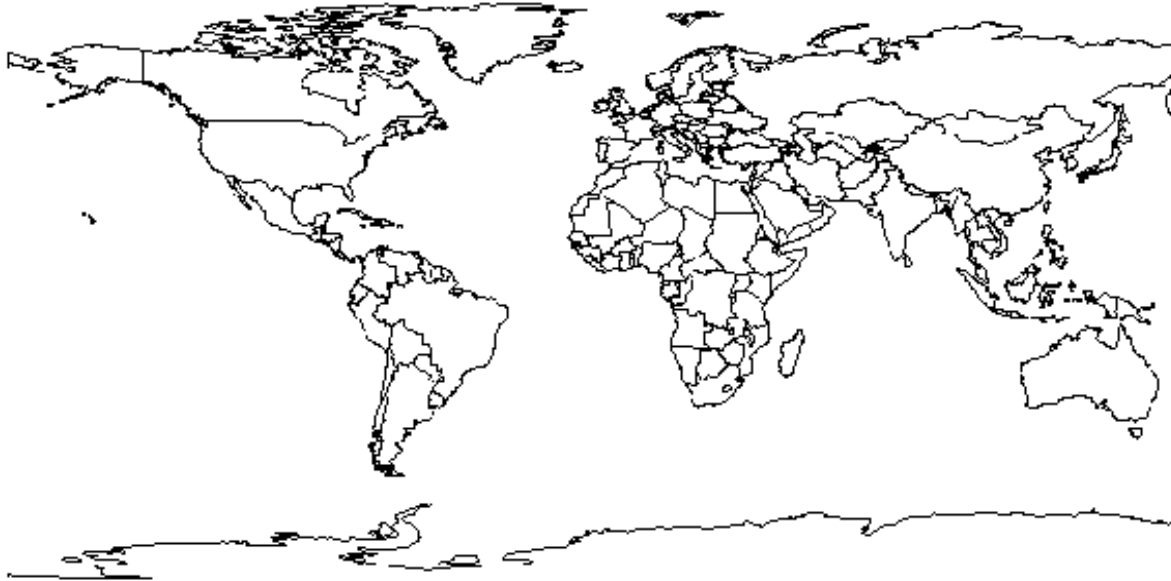


Image Directions Teacher Answer Key

Directions: Explore the information in the images for ultraviolet light intensity and skin pigmentation of indigenous peoples. Skin pigmentation values are rated according to the amount of light reflected off the skin of the underside of the forearm. Begin by investigating what information the various buttons open. Keep track of your findings by writing or coloring on the map provided below. After exploring the database for a couple of minutes, find and write answers to the following questions.



Credit: SETI Institute

1. What is the relationship between latitude and ultraviolet light intensity?

UV light intensity lessens as you move away from the equator.

2. What is the relationship between latitude and the level of skin pigmentation? Make note of any irregularities. *The closer the population is to the equator, the more deeply pigmented their skin. The population of Greenland presents an irregularity in that it is above 60 degrees latitude, yet has the same skin reflectance rating of populations at 30 degrees latitude.*

3. Write a paragraph that describes the relationship between average UV intensity and skin pigmentation. Your paragraph should refer to the data on the maps you have explored and the notes you have made. *Skin pigmentation tends to be darker where UV intensity is higher and lighter where UV intensity is lower. This doesn't always hold true; for example, skin pigmentation is darker in southern Greenland.*