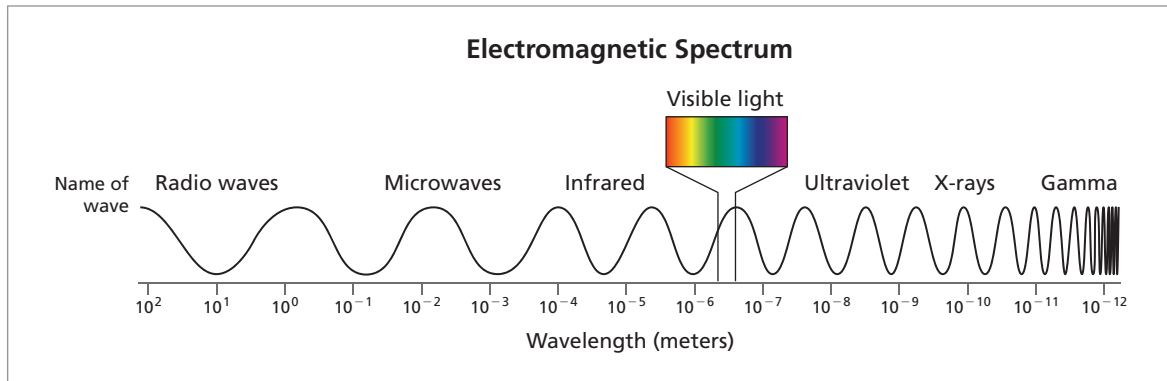


Section 3.2

Ultraviolet Radiation In Exercises 9–14, use a set diagram to analyze the statement about tanning.

9. Suntanning is a result of exposure to ultraviolet (UV) radiation, which is a type of electromagnetic (EM) radiation. All EM radiation is made up of small particles that travel in a wave-like pattern at the speed of light.

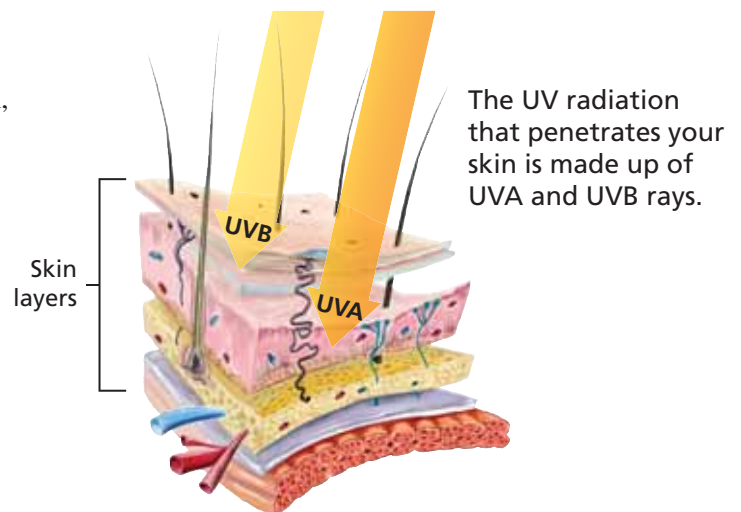


10. UV radiation from the Sun consists of three main types: UVA, UVB, and UVC. All UVC and some UVB are absorbed by Earth's ozone layer. Most tanning lamps emit both UVA and UVB rays, but some emit only UVA rays.

11. UV radiation damages DNA in cells. Your body responds by increasing the production of melanin, which causes tanning. UV radiation can also cause premature skin aging and skin cancer.

12. UV radiation can also damage your eyes. All UVB rays are absorbed by the cornea, but UVA rays pass through to the lens.

13. Sunscreens reduce the amount of UV radiation that penetrates the skin. Every broad-spectrum sunscreen blocks both UVA and UVB rays.



14. Some people tan easier than other people. Some people burn easier than other people.

Tanning In Exercises 15 and 16, use a set diagram to visualize the negation of the statement about tanning.

15. My best friend usually has a farmer's tan or a trucker's tan.
16. When I go to the beach, I will wear sunscreen with a sun protection factor (SPF) of at least 25 and I will use a beach umbrella to reduce my exposure to UV radiation.