

Physical Principles in Living Systems

Name: _____

Infrared, Visible Light, & Ultraviolet

Period: _____

Use Chapter 3, Section 1 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them. Some words may be used more than once.

colors combined infrared photosynthesis visible visible spectrum wavelengths
white light

Infrared Waves (p.78)

1. The sun makes you warm because it gives off _____ waves.
- _____ 2. Which of the following statements about infrared waves is NOT true?
 - a. Infrared waves from the sun warm Earth.
 - b. Only the sun gives off infrared waves.
 - c. Warm objects give off more infrared waves than cool objects.
 - d. All things give off infrared waves.
- _____ 3. The amount of infrared waves an object gives off depends on what?
 - a. the wave's speed and weight
 - b. the wave's frequency and surface properties
 - c. the object's weight and temperature
 - d. the object's temperature and surface properties
4. Look at the dog in Figure 4. Which part of the dog's head has the highest temperature? _____

Visible Light (p.78)

5. As humans, we can see _____ light.
6. Plants use visible light during the process of _____.



Visible Light from the Sun (p.79)

7. White light is made when visible light of all wavelengths is _____.
8. Light from lamps is _____.

Colors of Light (p.79)

9. We can see different _____ because cells in our eyes react differently to different _____ of light.
10. The range of colors we can see is called the _____.
- _____ 11. What do the capital letters in the name ROY G. BiV stand for?
 - a. the last letter of each color of visible light
 - b. the first letter of each color of visible light
 - c. the first letter of each type of EM wave
 - d. the first letter of the word indigo

turn over for more questions

Physical Principles in Living Systems
Infrared, Visible Light, & Ultraviolet

Name:

Period:

calcium shorter sunburn

Ultraviolet Light (p.80)

12. Ultraviolet light is made of _____ wavelengths than visible light.

Bad Effects (p.80)

13. You can get a _____ if you are exposed to too much ultraviolet light.

_____ 14. What type of cancer is caused by getting too much ultraviolet light?
a. bone cancer b. lung cancer c. skin cancer d. breast cancer

_____ 15. How can you protect your skin from getting too much ultraviolet light?
a. Wear a short-sleeved shirt. c. Use sunscreen with a high SPF.
b. Use sunscreen without an SPF. d. Wear short pants.

16. True or False? You can get a sunburn on a cloudy day. _____

Good Effects (p.81)

_____ 17. Which of the following is a good effect of ultraviolet light?
a. Ultraviolet light kills bacteria on food. c. Ultraviolet light attracts bacteria.
b. Ultraviolet light can damage your eyes. d. Ultraviolet light converts light energy into chemical energy.

_____ 18. What do skin cells produce when they are exposed to ultraviolet light?
a. vitamin A b. vitamin B c. vitamin C d. vitamin D

19. Look at Figure 9. What does Vitamin D help your body to absorb? _____

