

Name: _____

Extension 8.2.5- ULTRAVIOLET LIGHT

Video Playlist- Watch the playlist and answer the questions that follow.

Video 1- Solar Science UV Beads- Steve Spangler (3:19) <https://www.youtube.com/watch?v=hefhyXckVCQ&list=PLC4Twbo4B-F4gtCbbHApBrHW0E2uchHWIU&index=3&t=0s>

1. What happens to the white UV beads when they are exposed to the sun?
2. Why are medicines stored in an orange container?

Video 2- Which sunscreen should you choose?- Ted-Ed (4:39) https://www.youtube.com/watch?v=JX8rv_natkW

3. What is the primary source of ultraviolet radiation?
4. Which type of UV radiation never reaches Earth's surface?
5. Is UVB good for us or bad for us? Why?
6. Is UVA good for us or bad for us? Why?
7. What is a possible health risk of spray sunscreen?
8. SPF 15 blocks _____ % of UVB rays. SPF 30 blocks _____ % of UVB rays. SPF 50 blocks _____ % of UVB rays.
9. What type of sunscreens are harmful to marine life?
10. List 2 physical blockers:
 - a. _____
 - b. _____
11. List 4 carbon based chemical sunscreens:
 - a. _____
 - b. _____
 - c. _____
 - d. _____

Video 3- What exactly does the sun do to your skin? -Dnews (4:21) <https://www.youtube.com/watch?v=W0sT7mRMaj0&index=3&list=PLC4Twbo4B-F4gtCbbHApBrHW0E2uchHWIU&t=98s>

12. Light is either _____ or reflected. Darker colors absorb _____ than lighter colors.
13. When the camera shows the dark spots on people's skin, it is showing where the _____ is bouncing back at the camera.
14. What is the outer layer of skin called?
15. What is the inner layer of skin called?
16. Sunburns are _____ burns from overexposure to ultraviolet radiation.
17. What damage is being done to the oceans by sunscreen?

Video 4- Why don't animals need sunscreen? -SciShow kids (4:01) <https://www.youtube.com/watch?v=JxqASLmx96g&list=PLC4Twbo4B-F4gtCbbHApBrHW0E2uchHWIU&index=4>

18. List 3 examples of animals that have fur, feathers or scales to protect their skin.
 - a. _____
 - b. _____
 - c. _____
19. Why do pigs roll in the mud?
20. What other animal covers itself in mud, dirt or sand to be protected from the sun?
21. What does an alligator produce to protect itself from the sun?
22. Name 3 other animals that produce the same chemical as alligators to protect themselves from the sun.

23. Why don't humans make gadusol?

24. What animal gets sunburned? How does it protect itself from the sun?

25. Besides sunscreen, what is another good way to protect yourself from the sun?

26. UV wavelengths are _____ than visible light wavelengths.
27. How does visibility look when seen through UV?
28. What does tonic water look like seen through UV outside?
29. What molecule in tonic water fluoresces
30. What insects can see ultraviolet light?
31. What chemical in your skin makes you look tan?
31. What animals absorb UV light?
32. Why does the world look hazy in the ultraviolet?
33. What does sunscreen look like in the ultraviolet?

Write a 3-5 sentence summary of the video.