

A Perfect Planet Episode 2: The Sun

A Perfect Planet

1. How far away is the Sun?
2. How long does it take for the Sun's rays to reach Earth?
3. True or false? The Sun shapes the existence for every creature on Earth.
4. True or false? Almost every part of the Earth's surface receives the same quantity of sunlight throughout the year.
5. How much sunlight is received?

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6. Where is 12 hours of daily sunlight guaranteed throughout the year?
7. Which ecosystem benefits from this?
8. Which tropical rainforest tree produces fruit throughout the year?
9. What does the fig tree require to produce ripe fruit?
10. How are fig wasps and fig trees interdependent (rely on each other)?
11. Describe the life cycle of fig wasps.
12. Do tropical rainforests have seasons?
13. How many degrees does the Earth tilt?
14. What causes Earth to have seasons?

The High Arctic

15. How long does the High Arctic experience freezing darkness?
16. What is the closest land to the North Pole?
17. How have Muskox adapted to survive the harsh conditions?
18. Which predator preys on Muskox?
19. How often does a pack of arctic wolves need to make a kill?
20. What other food source to wolves depend on?
21. How have wood frogs adapted to the high arctic?
22. How have garter snakes adapted to cold environments?

Karak Lake

23. Where is Karak lake?
24. How many hours of sunlight does Karak lake receive during the summer?
25. How many calories do Arctic fox cubs need each day?
26. What is the prey of the Arctic fox?
27. What is the impact of being a weaker Snow goose?
28. How have foxes adapted to the environment?
29. What impact is climate change having on the foxes?

The Sahara

30. Why is the environment challenging for living organisms?
31. Why is the temperature on the surface of the sand at 10am?
32. How has the Saharan silver ant adapted to the environment?
33. By how much has the area of the Sahara expanded by in the last 100 years?
34. What proportion of all land is at risk of desertification?
35. How is the sun a potential benefit to humanity?

Forests of Central China

36. What happens to leaves in the autumn?

37. How has the golden snub-nosed monkey adapted to the forests of central china?

Snares Island, New Zealand / Alaska's Aleutian Islands

38. How have sooty shearwaters adapted to avoid the cold of winter?

39. What blooms due to the sunlight?

40. What feeds on the plankton that blooms around Alaska's Aleutian Islands?

41. What do both the wales and sooty shearwaters feed on in these nutrient rich waters?