

Total Points: 117

Station 1: (14 points)

1. I
2. F
3. A
4. G
5. D
6. H
7. J
8. $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$ (half credit for saying words instead of chemical formula)
9. Angiosperms and Gymnosperms (one point for each group)
10. Chlorophyll is broken down faster than it is made in the fall, revealing the other colors of the leaf that were concealed by the green of the chlorophyll
11. Deciduous trees lose their leaves in the fall and regrow in spring while evergreen trees keep leaves all year long.

Station 2: (16)

12. Ginkgo Biloba
13. It is a living fossil which means that it was thought to have been extinct but was later found growing wild in China.
14. Maidenhair Tree
15. China
16. True
17. Taxus Brevifolia
18. The red fleshy part of the berries are safe to eat but the seed is very poisonous. (half credit if they don't mention the properties of the seed)
19. Any three of the following: tools, bows, arrows, canoe paddles, fish hooks, spoons, drums, leaves for medicinal purposes, etc.
20. The chemotherapy drug paclitaxel (taxol) is derived from the tree and is used in breast, ovarian, and lung cancer treatments.

Station 3: Toyon (7)

21. Rosaceae
22. Pome
23. California or Oregon
24. L.A.
25. Pome/fruit
26. Cyanogenic glycosides, also accept hydrocyanic acid, 1/2pt for cyanide
27. Alzheimers
28. Plant that lives more than 2 years (1), yes (1)

Station 4: (9)

29. Genus Acer
30. This family reproduces with seeds
31. Maple Syrup and Wood (1 pt for each)
32. Acer Negundo
33. Acer Rubrum
34. Samaras (0.5 pt if they said fruits)
35. Acer Saccharinum
36. Acer Saccharum

Station 5: (11)

37. Washingtonia Filifera
38. California
39. *Filifera* means 'thread bearing' and it comes from Latin (1 pt for meaning, 1 pt for language)
40. Sabal Palmetto
41. Florida
42. Odd Pinnate
43. The trunk is resistant to burning and only loses its outer vascular layers in fire. The remaining surface is left charred which strengthens the tree to future fires. The fronds are the most flammable part of the tree (3 pt)
44. The sweet fruit pulp

Station 6: (15)

45. Growth rings
46. Pith
47. Heartwood
48. Sapwood
49. Cambium
50. Phloem/Inner Bark/Live Bark
51. Bark/Outer Bark/Dead Bark
52. Cuticle
53. Upper Epidermis
54. Palisade Mesophyll
55. Spongy Mesophyll
56. Lower Epidermis
57. Stomata (with guard cells)
58. Xylem
59. Phloem

Station 7: (9)

60. *Betula alleghaniensis*/Yellow Birch
61. *Betula occidentalis*/Water Birch
62. *Morus rubra*/Red Mulberry
63. Specimen C
64. ABC
65. Specimen A
66. Specimen C
67. Pinnate

Station 8: (12)

68. Dentate
69. Spiny/Pungent
70. Doubly Serrate
71. Crenate
72. Serrate
73. Entire
74. Ciliate
75. Lobate
76. Check as needed

77. Denticulate margins have finer teeth

Station 9: (9)

78. *Hamamelis virginiana*/Witch-hazel

79. *Liquidambar styraciflua*/Sweetgum

80. Flowers, Fruit

81. Hamamelidaceae

82. Specimen A

83. American Storax, Hazel pine, Bilsted, Redgum, Star-leaved gum, satin-walnut, alligatorwood (any 2)

84. They explode when they warm/mature

Station 10: (15)

85. Primary succession occurs when an area that has not been previously exposed to an ecological community is colonized, whereas secondary succession occurs in areas that have already been colonized

86. Climax

87. Deciduous, they typically grow faster (r-selected)

88. Tropical Forest, Temperate Forest, Boreal Forest/Tiaga. 3 pts for biomes, 1 pt for correct order

89. Mycorrhizal fungi have many branching threads (called mycelium) that grow out from the root tip of a tree and connect with the roots of other trees and plants to form a mycorrhizal network, Mutualism

90. The role an organism plays in a community

91. BCF

92. Any funny answer is a point