Leaves as Thermometers Answer Key

Modern MAT of Los Angeles:

The Mean Annual Temperature of Los Angeles International Airport today is **18.2°C or 64.8°F**. To calculate that temperature, you would have found that 56% of your leaf collection had smooth leaves. This value could be different depending on where you live in Los Angeles and how many species of leaves you were able to collect. Near the coast, temperatures are cooler than further inland and if you collected too few leaf species your values may differ slightly. The best results come from including at least 15 different species of trees in your experiment.

Ice Age MAT of Los Angeles:



For the La Brea Tar Pits leaf collection, there are 7 smooth leaves out of 20 total to equal 35% smooth leaves. We calculated a MAT of **11.85°C or 53.3°F** for Ice Age Los Angeles using the Leaf Thermometer.

How Much Cooler Was Ice Age Los Angeles?



Taking the difference between the present day MAT value and the Ice Age MAT value, we learn that Los Angeles was ~11.5°F cooler during the Ice Age.