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? WHY THE WEATHER ?

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THE COLORS OF THE RAINBOW

How many colors has the rainbow? If you turn for the answer to this question to non-scientific literature you will find a variety of answers. Thus Tennyson writes:

"O trefoil sparkling on the rainy plain,
O rainbow with three colors after rain,
Shine sweetly; thrice my love hath smiled on me."

And Shelley:

"The triumphal arch through which I march...
Is the million-colored bow."

Milton and many other well-known writers agree with Tennyson. We read in "Paradise Lost" of "the triple-colored bow". Shelly's exuberant estimate is a unique example of poetic license, but at least two of the Latin poets -- Virgil and Ovid -- ascribe a thousand hues to the robe of Iris, goddess of the rainbow.

The actual number of colors that can be clearly distinguished in the rainbow is quite variable, though the order in which they are arranged is, of course, that of the spectrum. In the primary bow the inner border is violet and the outer red; in the secondary the inner border is red and the outer violet. These two colors can nearly always be seen, though they occur in various shades -- especially the red, which ranges from scarlet to terra cotta -- and between them it is usually easy to make out at least one other color. Greens, blues and yellows may all be present. There is, however, much mixing of colors, because the rainbow is not a single spectrum but a series of overlapping spectra formed by light coming from different parts of the broad solar disk.

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