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? WHY THE WEATHER ?

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THE RAINBOW

The rainbow is an arc of a circle whose center is directly opposite the sun. You must stand with your back to the sun to see the bow, and the lower the sun the more of bow visible above the horizon. The radius of the ordinary or primary rainbow at its outer edge is about 42 degrees. Hence when the sun is more than 42 degrees above the horizon, the rainbow is entirely below the horizon and invisible. Thus in our latitudes we can never see a rainbow in the middle of the day in summer. From the above facts it follows, also, that the visible part of the bow is generally less than a semicircle and is never more than one, unless we view it from some lofty location.

Besides the primary rainbow, we can generally see a secondary bow, concentric with the primary and having a radius of about 50 degrees. It is always fainter than the primary, and the space between the two bows is, as a rule, conspicuously darker than the rest of the sky.

Additional bands or fringes of color, chiefly red and green, may often be detected adjacent to the inner edge of the primary bow, and, much less often, along the outer edge of the secondary. These are known as supernumerary bows. Though not rare and quite easy to see when you look for them, the supernumerary bows generally escape the attention of the casual observer.

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