

If your vision somehow began to increase so that you could see higher and higher frequencies beyond visible light, what type of wave would you be able to perceive first?

The frequency of the wave determines its color: 4×10^{14} Hz is red light, 8×10^{14} Hz is violet light, and between these (in the range $4 - 8 \times 10^{14}$ Hz) are all the other colors of the rainbow. Likewise, an electromagnetic wave can have a frequency higher than 8×10^{14} Hz, such waves are called ultraviolet (UV) radiation. (Even higher-frequency waves are called X-rays, and higher still are gamma rays.)

So, first will be ultraviolet. It is so-named because the spectrum consists of electromagnetic waves with frequencies higher than those that humans identify as the color violet. These frequencies are invisible to humans, but visible to a number of insects and birds.

