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| Radio Waves | Microwaves | Infrared Rays | Visible Light |
| The Electromagnetic Spectrum | | | |
| Ultraviolet Rays | X-rays | Gamma-rays | Cosmic Rays |

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| Longest wavelength, lowest frequency | First transmitted/detected by Heinrich Hertz | First wireless device invented by Guglielmo Marconi | Search for Extra Terrestrial Intelligence uses this part of the electromagnetic spectrum |
| Wavelength range: 1cm to 1m | First developed during WWII | Leftover radiation from the Big Bang, discovered by Penzias and Wilson | Causes water molecules to vibrate, creating heat. |
| Discovered by William Herschel in 1880 | Great indicator of star-forming regions | Used in TV remotes and thermal imaging | Also known as “heat rays” |
| First separated into visible spectrum by Isaac Newton | Wavelength range is from 400-700nm | Small band of frequencies the retina of the eye responds to | Identifies extra solar planets by looking at the light curves of stars |

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| Discovered in 1801 by Johan Ritter | Produces Vitamin D in skin | Used in forensics, fluorescence, curing of finishes | May cause skin cancer |
| Discovered in 1895 by Wilhelm Roentgen | Used in industrial applications to inspect beams and bridges | Used in medical diagnostic and treatment |  |
| Discovered in 1900 by Paul Villard | Produced by nuclear decay, fission, and fusion | The Vela satellites detected this type of radiation from space. This radiation was first thought to be from the Soviet Union testing nuclear bombs on the moon | Can detect Cherenkov radiation from the ground. |
| Not technically light, but high energy particles traveling close to the speed of light | May come from the sun, supernovae, gamma-ray bursters, and other high energy events | Discovered in 1912 by Victor Hess |  |