History of Light

Physicist	Nat.	Year	Type	Description
Ole Roemer	🇩🇰	1676	🔎	First measurement of speed of light using timing of eclipses of Jupiter's moons
Christiaan Huygens	🇳🇱	1680	✏️	Wave theory of light. Huygens Principle: construct future wavefront by placing point sources along current wavefront.
Isaac Newton	🇬🇧	1704	✏️	Corpuscular theory of light. Used a prism to separate white light into component monochromatic colors.
James Bradley	🇬🇧	1727	🔎	Discovery of aberration of starlight. Angle of star in sky depends on relative transverse velocity
William Herschel	🇬🇧	1800	🔎	Discovery of infrared radiation. Used a thermometer to show "invisible rays" beyond red exist in spectrum formed by a prism.
Johann Ritter	🇩🇪	1801	🔎	Discovery of ultraviolet radiation. Used photographic film to show "invisible rays" beyond blue exist in spectrum formed by prism.
Thomas Young	🇬🇧	1801	🔎	Double slit experiment demonstrating wave nature of light. Measured wavelength of white candle light.
Augustin Fresnel	🇫🇷	1818	🔎	Wave theory of light and diffraction. Mathematical elaboration of Huygens's wave theory. Near-field diffraction patterns.
Augustin Fresnel	🇫🇷	1822	🔎✏️	Light as a transverse wave. Theory of linear, circular and elliptical polarization.
James Maxwell	🇬🇧	1873	✏️	Light as an electromagnetic wave. Theory predicts speed of light
Heinrich Hertz	🇩🇪	1885	🔎	Discovery of radio waves. Produced and detected radio waves using an electric spark and an antenna.
Albert Michelson	🇺🇸	1887	🔎	Michelson-Morely experiment. Showed no evidence of the ether.
Conrad Rontgen	🇩🇪	1895	🔎	Discovery of X-rays. Found that a Crookes tube produced invisible rays that penetrated objects including his wife's hand. (1901 Nobel Prize)
Albert Einstein	🇨🇭	1905	✏️	Special Theory of Relativity. Speed of light is constant relative to all reference frames.
Albert Einstein	🇨🇭	1905	✏️	Photoelectric effect. Light acts like a particle. (1921 Nobel Prize).
Max von Laue	🇩🇪	1912	🔎	X-ray diffraction using crystal lattice. Experimental confirmation that x-rays are electromagnetic waves.
Arthur Compton	🇺🇸	1922	🔎	Compton effect. Showed that x-rays act like particles when they scatter off free electrons. 1927 Nobel Prize (shared with Wilson).

Nationality:

🇩🇰 Denmark 🇩🇪 Germany 🇳🇱 Netherlands 🇺🇸 United States

🇫🇷 France 🇬🇧 Great Britan 🇨🇭 Switzerland

Type of discovery:

✏️ Theoretical discovery 🔎 Experimental discovery