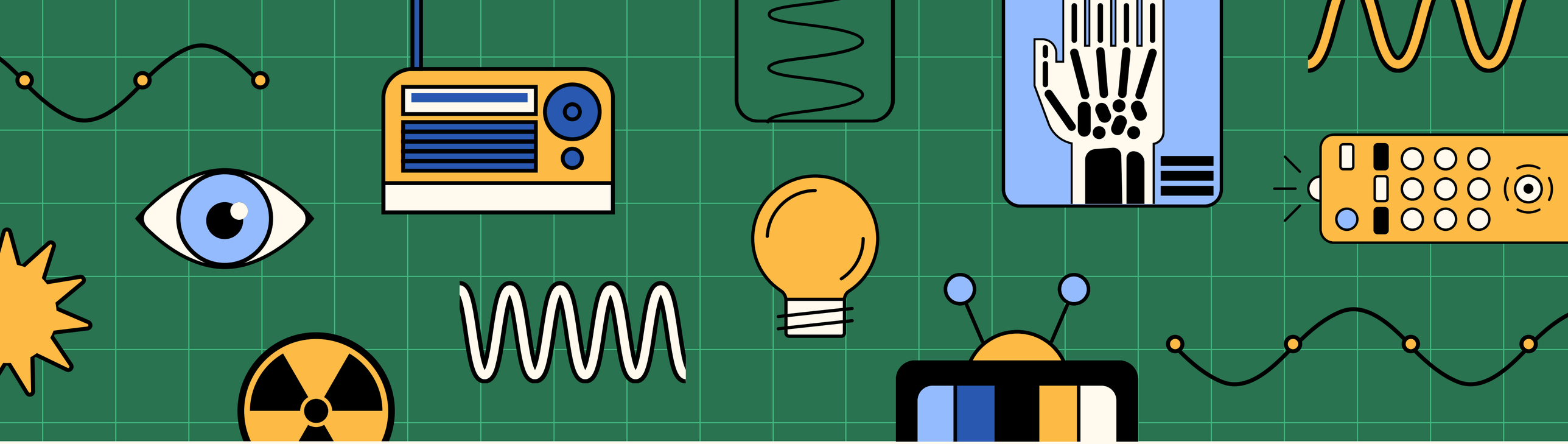
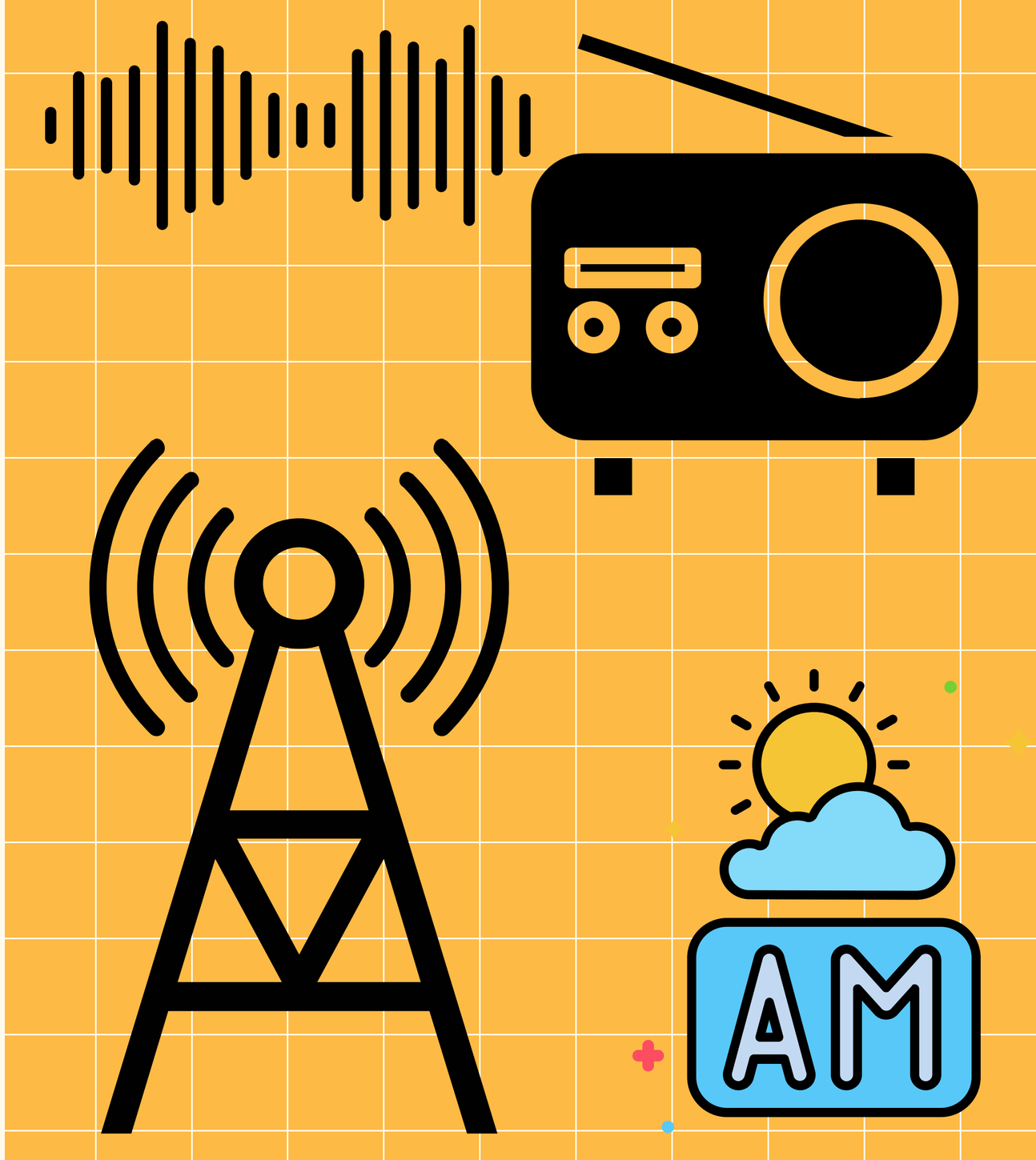


Difference Between AM & FM

AM

Amplitude Modulation

The **amplitude** (strength) of the carrier wave changes with the signal.
It can travel **longer distances**, especially at night.
It is more affected by noise (since noise changes amplitude)



FM

Frequency Modulation

The **frequency** of the carrier wave changes with the signal.
Shorter range, limited by line-of-sight.
It is less affected by noise (frequency changes are preserved)

AM

Bandwidth	Narrower (~10 KHz for standard radio.
Sound Quality	Lower quality, more static/noise prone
Typical Use	AM radio (News, talk shows)
Carrier Power	Constant Carrier Power

FM

Bandwidth	Wider (~200KHz for standard FM Radio)
Sound Quality	Higher Quality, less noise and interference.
Typical Use	FM Radio (music, high fidelity Audio)
Carrier Power	Constant Amplitude; power varies with frequency deviation

Thank You

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BTech ECE Student