

**LIGHTS, CAMERA, MEDIA LITERACY!
THE TECHNOLOGY OF RADIO**

Electronic radio is an 8-step process, requiring ...

TRANSMISSION (4 steps)
and
RECEPTION (4 steps).

TRANSMISSION:

- 1) Microphone** - Sound enters. A thin diaphragm vibrates.
 - a) The vibrations are turned into electrical signals.
 - b) The signals are amplified and fed into #2...
- 2) Modulator** - This combines the electrical signals with radio waves that can be carried through the air. (*Imagine getting a ride through the air by hopping on the back of a bird.*)
- 3) Oscillator** - This vibrates the carrier wave from #2 so that it's the same frequency as a natural wave. It's amplified and fed by cable to #4.
- 4) Aerial** - These towers are 500-600 feet tall and made of a metal rod or wire loop. They spread the wave into all directions.

RECEPTION:

- 5) Aerial** - This picks up the radio waves and sends to #6.
- 6) Receiver** - This mixes the received waves with the wave of lower frequency to the station being selected. (It amplifies the desired signals and rejects the unwanted signals.)
- 7) Demodulator** - This separates the signal from the carrier wave, amplifies it, and sends it to #8.
- 8) Loudspeaker** - This works like a microphone in reverse and replicates the sound that went in.