Amateur Radio

1. History of Radio
   a. James Clerk Maxwell
      i. theorized electromagnetism in 1873*
   b. Guglielmo Marconi
      i. communicated across the Atlantic in 1901*
   c. Radio Act of 1912
      i. Required amateurs to be licensed/Restricted to 200 meters*
   d. Hiram Percy Maxim
      i. Founded the American Radio Relay League (ARRL) in 1914*
   e. Transatlantic transmission/receiving tests began in 1921*
   f. First contact via the moon took place on 1296Mhz in 1960*
   g. Modern Amateur Radio
      i. Various modes of communication
         1. Continuous Wave (CW)/Morse Code
         2. Single Side Band (SSB)
         3. Frequency Modulation (FM)
      ii. Digital Modes of communication
         1. PSK31
         2. DSTAR
         3. DMR
      iii. Software Defined Radio

2. Licensing
   a. Classes of License & Privileges of Each Class
      i. Technician
      ii. General
      iii. Extra
   b. How do you get a license

3. Repeaters
   a. What are they?
   b. Uses

4. DSTAR
   a. What is it
   b. Who created it
   c. How does it work
      i. Callsign Routing
      ii. Reflectors
      iii. Hotspots vs Repeaters
   d. Uses

5. DMR
   a. What is it
   b. Who created it
   c. How does it work
   d. Uses

6. Multi-Mode Digital Repeaters