

Links with Resources for Lessons and Activities

WSPR Web Site:

<http://wsprnet.org/drupal/>

Stellar WSPR Web Site:

<http://stellarwspr.com/>

NASA Resources:

<http://missionscience.nasa.gov/nasascience/>

NASA Resources more suitable for middle school:

<http://science.hq.nasa.gov/kids/imagers/ems/waves3.html>

Wikipedia Definition of Electromagnetic Waves:

http://en.wikipedia.org/wiki/Electromagnetic_radiation

Wikipedia Definition of Radio Waves:

http://en.wikipedia.org/wiki/Radio_waves

Summary of electromagnetic waves:

<http://www.school-for-champions.com/science/emwaves.htm>

Another summary of electromagnetic waves:

<http://paul-a-heckert.suite101.com/what-are-electromagnetic-waves-a36020>

Cool animation of radio waves:

<http://phet.colorado.edu/en/simulation/radio-waves>

Simulation of propagation of EM waves:

<http://www.phy.ntnu.edu.tw/ntnujava/index.php?topic=35>

Lecture notes for Maxwell's equations and magnetic waves:

http://Galileo.phys.Virginia.EDU/classes/109N/more_stuff/Maxwell_Eq.html

You Tube video of Cornell physics lecture on EM waves:

<http://www.youtube.com/watch?v=j2gOh39IyPM>

MIT lecture on EM waves:

<http://academicearth.org/lectures/electromagnetic-waves-solutions-to-maxwells-equations>

MIT Open Courseware home:

<http://ocw.mit.edu/index.htm>

Explanation of how radio waves are produced:

<http://www.nrao.edu/index.php/learn/radioastronomy/radiowaves>

Discovery Channel video of EM waves:

<http://dsc.discovery.com/videos/assignment-discovery-shorts-discovery-of-electromagnetic-waves.html>

Basic information on radio waves from Northwestern along with links to answers to questions:

<http://www.qrg.northwestern.edu/projects/vss/docs/communications/1-what-are-radio-waves.html>

Frequently asked questions related to the propagation of radio waves:

<http://www.qsl.net/vu2msy/propagation.htm>

Links to basic information about HAM radio:

<http://www.qsl.net/vu2msy/MORE2.htm>

<http://www.youtube.com/watch?v=m215gGWKAYc&feature=related>

Short, interesting article about the comeback of radio waves:

<http://www.sciencedaily.com/releases/2011/06/110607071147.htm>

Sunspots

<http://www.swpc.noaa.gov/info/Radio.pdf>

http://www.youtube.com/watch?v=uHdJ11AHejw&feature=results_video&playnext=1&list=PLDAEC4298D048A7D2

http://www.youtube.com/watch?v=xc7hnmSBkm4&feature=autoplay&list=PLDAEC4298D048A7D2&lf=results_video&playnext=2

<http://www.youtube.com/watch?v=UuaXWJVe1vk>

Noise

<http://www.qrg.northwestern.edu/projects/vss/docs/communications/1-what-interferes-with-radio-waves.html>