

**PREFLIGHTS****LESSON 26 – ELECTRIC DIPOLE RADIATION****LEARNING OBJECTIVES:**

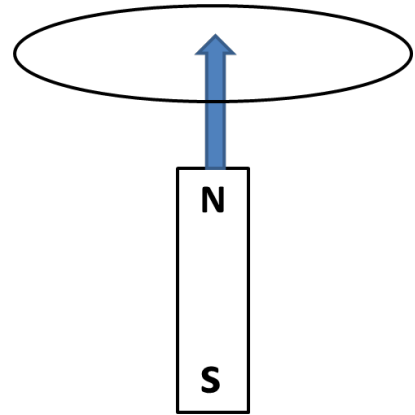
- 1. Describe what conditions are necessary for an arrangement of electric charge to produce electromagnetic waves.**
- 2. Determine how oscillating electric dipoles radiate.**

**1)** This section might have seemed a little confusing to you because some concepts from Chapter 10 (which we skipped) were referenced. Flip back to page 423 and read the first few paragraphs on that page. What is meant by “retarded time” and “retarded potentials”?

**2)** According to the reading, why don’t static charges and steady currents radiate electromagnetic waves?

**3)** Study Example 11.1. Why is the sky blue during the day and red at sunset?

4) **Note:** *This is a review question from Chapter 7.* A magnet approaches a wire loop as shown. The loop is not connected to anything and, before the magnet was brought nearby, no current was flowing through it. Does the magnet feel a force from the loop? If so, in what direction is the force?



5) What did you find difficult or confusing in the pre-class work? If nothing was difficult or confusing, tell me what you found most interesting. Please be as specific as possible.

6) Document whatever help you received on the preclass work.