Physics 100 Name: _____

Unit 2: Electricity

Notes, part 3: Electric Fields, Etc.

1. What is an electric field?

2. **<u>Try the Electric Field Hockey (pHet Simulation) --</u>**

https://phet.colorado.edu/en/simulations/electric-hockey

1. Find and run the simulation.
2. Click the "Field" and "Trace" buttons.
3. Try to win levels 1 and 2.
4. What happens when you turn off "puck is positive," so that the puck becomes negative?

3. What creates an electric field?

4. A map of an electric field has arrows. What does the direction of the arrows tell us?

5. Two drawings of charged "pucks" and a goals are shown below. For each diagram draw some **<u>positive</u>** charges that will make the puck go into the goal. Also draw at least one arrow representing the electric field.

6. Do the same thing again, but this time use **<u>negative</u>** charges.

Practice Questions:

1. What is an electric field?

2. If an electric field arrow points to our right, what does that mean…

   a. For a negative charge in that part of the electric field?

   b. For a positive charge in that part of the electric field?

3. a. Show how to create electric fields that will push the pucks below into a goal. Do this by adding other charges to the "hockey rinks."

   b. On each diagram, use an arrow to create a map of the electric field that you have created.