**Physics 100** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 2: Electricity**

**Notes, part 3: Electric Field, Etc.**

7. What is an electric field?

8. What creates an electric field?

**9. Electric Field Hockey (pHet Simulation)**

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?

10. Interesting (and important) facts:



**Fact #1:** Charges “leak away” from surfaces of charged conductors that are

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 This explains why lightning rods are added to buildings:

 This also explains why the surface of a Van de Graaff generator is \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Fact #2:** The electric field inside a conductor is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is why

 one of the safest places to be during a lightning storm is

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_