

Name (print)_____ NetID _____ Section_____TA _____

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Title: Photoelectric effect

Objectives: Students will observe and describe the photoelectric effect.

Instructions: Fill out the If , and, then portion of the worksheet. Then, watch the video clip demonstrating the photoelectric effect. <http://ps100.byu.edu/homework/14photo.wmv>

| Wave model for light | “Particle” model for light |
|---|--|
| If ... light is a wave | If ... light is made up of photons |
| And I want to knock electrons off of a negatively charged electroscope, I can vary the energy by | And I want to knock electrons off of a negatively charged electroscope, I can vary the energy by |
| Then ...what should happen and why | Then ...what should happen and why |
| And/But: Watch the video at http://ps100.byu.edu/homework/14photo.wmv What happens? | |
| Therefore: | Therefore: |

If the experiment is repeated when the electroscope is positively charged, what do you predict would happen? Why?