

# The Photoelectric Effect Demonstration Worksheet

## Data Table

Light Source	Electroscope and Zinc Plate		Electroscope and Copper Plate	
	Negatively Charged	Positively Charged	Negatively Charged	Positively Charged
Flashlight or incandescent lamp				
Sunlight				
Long-wave UV light				
Short-wave UV light				

## Discussion Questions

1. The energy of a quantum of light is proportional to its frequency. Which UV light has higher energy—the long-wave or the short-wave? Explain.
  
2. How does the energy of light effect whether or not the light source can discharge a certain type of metal?
  
3. Which type of metal has a higher threshold energy, zinc or copper?