

Name	

## Fluorescent Dye Demonstration Worksheet

## **Discussion Questions**

1.	Draw the four beakers. Label each one with its contents, the color of the solution under normal, white light, and	the
	color of the solution under a black light.	

2. The visible spectra of wavelengths for the human eye ranges from about 400 to 700 nm. UVA light (black light) transmits in a range from about 320 to 400 nm. Explain why we cannot see the light from a black light like we can light from a normal light.

3. Fluorescence occurs when a substance absorbs a photon from a light source. The energy from that photon causes an electron to move to an "excited" state (higher energy level). If that electron returns to its ground state in a series of steps, rather than just one, it will release a photon with a different wavelength than the original. Explain how this relates to the "colorful glow" you see when a substance fluoresces.