

# Zedua Experiments

## **Title:** Make Glowing Water

What is UV light?

Black light also known as UV or ultraviolet light is a part of the electromagnetic spectrum. The electromagnetic spectrum includes infrared, X-rays, visible light (what the human eye can see) and other types of electromagnetic radiation.

There are different types of luminescence, they include fluorescence (used in this experiment, it glows only when the black light is on), phosphorescence (similar to fluorescence but with a glow that can last even after the black light is turned off), chemiluminescence (used to create glow sticks), bioluminescence (from living organisms) and many others..

A black light lamp such as the one you used emits UV light that can illuminate objects and materials that contain phosphors. Phosphors are special substances that emit light luminescence when excited by radiation. Make glowing water with the help of a black light in this fun science experiment for kids.

## **Materials Required:**

1. A black light.
2. Tonic water or a highlighter pen.
3. A dark room to do the experiment.

## **Procedure:**

1. Carefully break open the highlighter pen, remove the felt and soak it in a small amount of water for a few minutes.
2. Place the water in a dark room.
3. Turn on the black light near your water, and observe the luminescence

## **What's happening?**

The ultra violet (UV) light coming from your black light lamp excites a substance called phosphors. Tonic water and the dye from highlighter pens

contains phosphors that turn UV light (light we can't see) into visible light (light we can see). That's water glows in the dark when you shine a blacklight on it.

Black lights are used in forensic science, artistic performances, photography, authentication of banknotes and antiques, and in many other areas.



Source: pintrest