Ultraviolet Light Detecting Beads

How do the beads work?

The Ultraviolet (often abbreviated UV) light beads contain a pigment (or a coloring matter) which changes color when exposed to ultraviolet light from the sun or other UV sources.

Make a UV detecting bracelet:

Take a set of 3 beads and put them onto the pipe cleaner. Make the pipe cleaner fit your wrist to make a bracelet. Wrap your pipe cleaner ends around the band so that they don't stick you. Now, walk over to a window in the room that has sunlight shining into it. Answer the questions below:

1. What happened to your beads when you walked to the window and held your wrist in the light?

2. How do you get the beads to return to their normal color?

3. Test your beads at different times of the day. Do they change color differently? Tell how below.

4. Do other lights make your beads change color? Tell which ones below.

If you wear sunglasses, they often claim to filter (or block out) harmful UV rays. Try putting your sunglasses in front of the beads in the sun and test this claim. Tell what happens below.

Optional Homework investigations:

1. With your parents' permission, try investigating your bead bracelet in the car. Automobile glass sometimes has a shield that absorbs UV radiation. Does yours? Tell which windows do or do not have a shield, and how they affect the beads below.

2. Investigate the windows of your home. Tell what you discovered below.

3. Investigate the lights/lamps of your home. Tell what you discovered below.