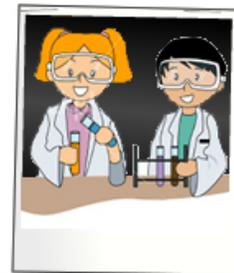




Radioactive Art

Radiography is the production of an image on photographic film created from a radiation source. The principle is the same as taking a photograph with a camera, but radiation is substituted for light.



The following is a recreation of an experiment originally done by French physicist Henri Becquerel, one of the discoverers of radioactivity. You will try to use common objects (coins, keys, test tubes, plastic forks, etc.) to make a controlled, artistic image on Polaroid film.

Materials:

- Polaroid film, type 57.
- Radioactive material (e.g., ceramic material with uranium glaze (such as orange, antique Fiestaware dishes), an old Coleman lantern mantle, an antique watch or clock dial that glows in the dark, or a smoke detector labeled as containing radioactive material).
- Tape.
- Common objects: paper clips, coins, keys, comb, etc.
- Rolling pin.



Instructions:

- Place film with lens side up on a flat surface.
- Place an object (a paper clip, coin, key, comb, etc.) in the center of the film.
- Next, place the radioactive material over the object.
- Carefully tape the objects to the film.
- Place the film in a dark area for up to one week.
- Remove the objects from the film.
- Develop the film by rolling a rolling pin across the film to spread the chemicals evenly over the film.
- After the developer is spread, wait about 60 seconds before opening the film.
- Draw your observations.

What you'll learn:

- An image is produced by ionizing radiation on the undeveloped film.
- When the film is processed, it can show the location and intensity of the source used and the shape of objects placed between the source and film.

Topics to include in a report:

- Discuss Henri Becquerel – his life, his film experiment, his research, etc.