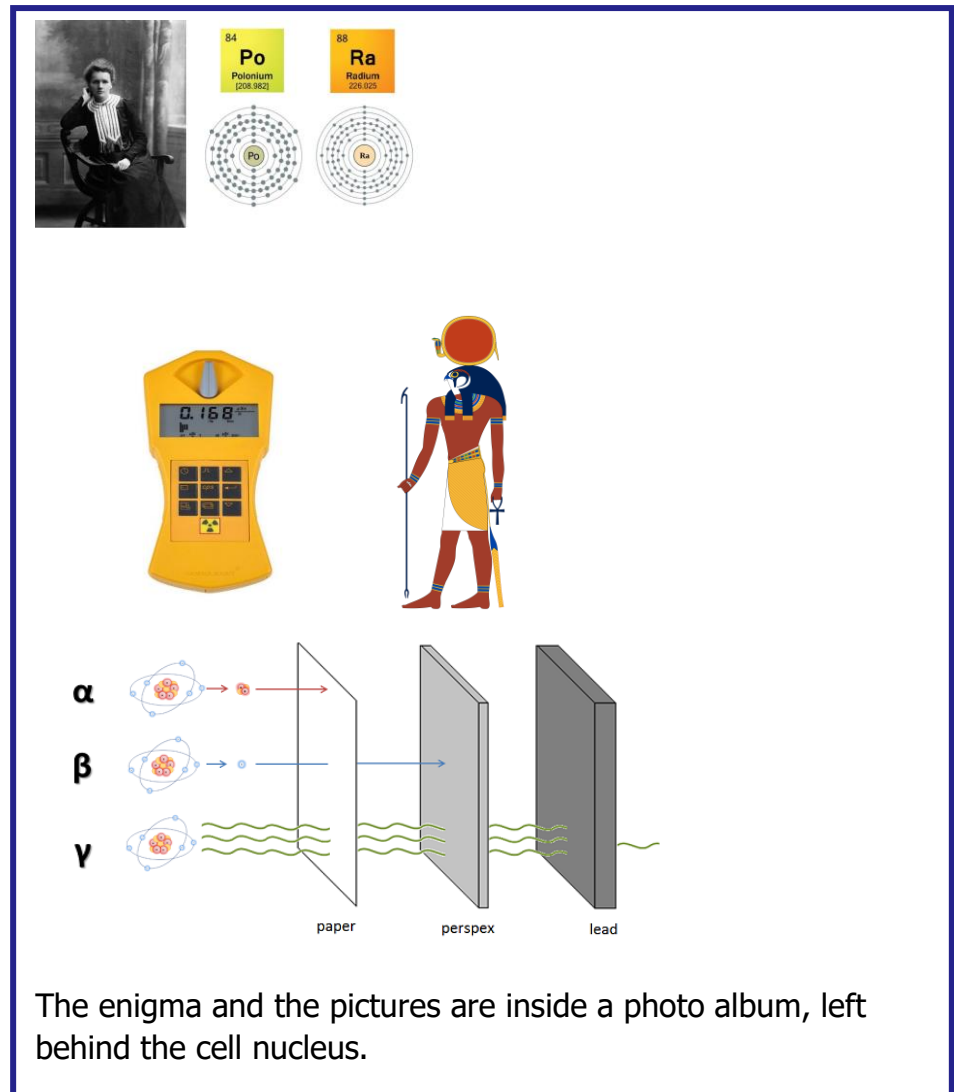


ENIGMA 3

- **Visual and format**



The enigma and the pictures are inside a photo album, left behind the cell nucleus.

The puzzle content includes:

- A portrait of Marie Curie.
- Periodic table entries for Polonium (Po, atomic number 84) and Radium (Ra, atomic number 88), each with a corresponding Bohr model.
- A yellow Geiger counter displaying '0.158'.
- An illustration of an Egyptian pharaoh.
- A diagram showing the penetration of alpha (α), beta (β), and gamma (γ) radiation through paper, perspex, and lead.

- **Enigma/puzzle**

The pictures which are presented to you are connected by one physical phenomenon. For this phenomenon Henri Becquerel, Marie and Pierre Curie in 1903 were awarded with a Nobel prize.

Name the phenomenon and it will give you the lead for the next puzzle.

- **Estimated solving time**

5-10 min

- **Solution**

The phenomenon is radioactivity.

- **Depends on**

The student's ability to associate visual information with abstract ideas (such as radioactivity).

- **Benefits**

They will learn about the characteristics of the phenomenon radioactivity, this will lead them to the next puzzle.

- **Hints:**

- **Hint 1**

On the first two pictures you can see the scientists that worked on the phenomenon and won Nobel prizes for it.

(subtle)

- **Hint 2**
(easy)

This phenomenon is connected to the characteristics of a lot of dangerous chemical elements.

- **Hidden place/placement**

Behind a large nucleus (a cell nucleus).

- **Material needed**

Paper

Pan/pencil

Periodic table