

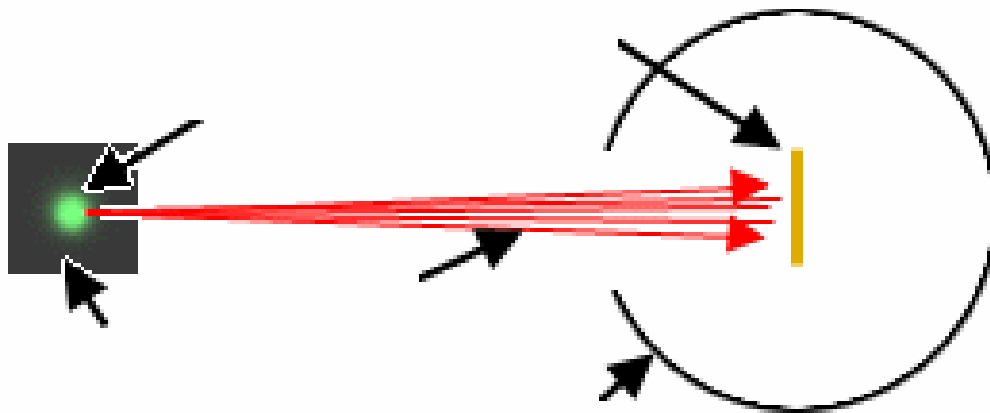
## Rutherford experiment.

Rutherford wanted to know more about constituents of matter. He made the famous ‘gold foil experiment’.

### STEP ONE

1. Try to write the missing words in the arrows of the draw.

**RADIATIVE SOURCE**, **ALPHA RAYS**, **GOLD FOIL**, **SCINTILLATING SCREEN**, **LEAD CASE**



### STEP TWO

When scientists get data from the experiments, they have to fit with the theory. At Rutherford’s time, scientists accepted that matter is made of atoms like marbles, as shown in the picture below.

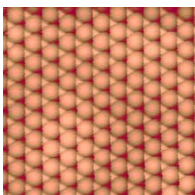
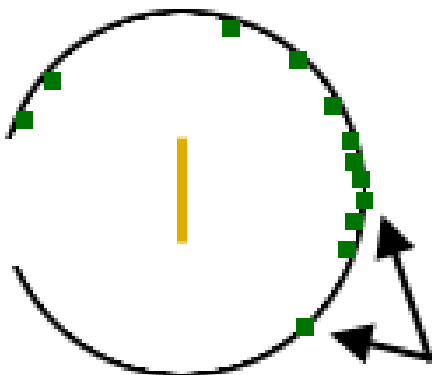
The picture on the left shows what Rutherford got.

What happened?

That’s the way scientist work. Now you’re a scientist and you face this problem. Try to explain it!

**a) Draw the way of the charged particles!**

**Draw your atomic model. (Note that most of alpha rays didn’t scatter).**



Atomic model at Rutherford time.