

1. What would the distribution of alpha particles, relative to the incident beam, look like if the positive nucleus took up the whole atom (sort of like the plum pudding). Draw a graph and explain:

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0°

360°

2. What if it took up 50%? Draw a graph and explain:

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0°

360°

3. What does the distribution of alpha particles actually look like (recall that 1 in every 8000 particles were deflected). Draw a graph and explain:

4. How would Rutherford's experimental results change if he had used electrons or neutrons?