

Average Atomic Mass

Purpose:

To calculate the average atomic mass of an element from isotopic data.

Getting Ready:

Visit the **Average Atomic Mass** simulation at The Physics Classroom website:

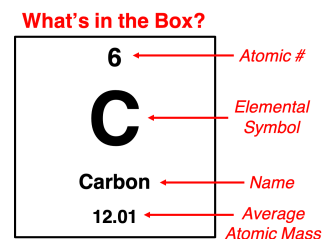
<https://www.physicsclassroom.com/Physics-Interactives/Chemistry/Average-Atomic-Mass>

Navigational Path:

www.physicsclassroom.com → Physics Interactives → Chemistry → Average Atomic Mass

Background:

Mass spectrometers provide data about the isotopes in an elemental sample. The data includes the atomic mass of each isotope and the percent of each isotope in the sample. Such data is used to determine the **average atomic mass** of an element. This value is the value that you will find in each cell of the Periodic Table.



In this activity, you will use our very own mass spectrometer to determine the average atomic mass of four different unknown elements. Two of them are elements found on Earth. The other two were dug up from another planet. Record your provided data in the provided space. Then do your calculation. It is important that you clearly show your work in the provided space. If you need help, then tap the Help Me button or use the link/QR code provided here. You will find formulae, examples, and advice.



www.physicsclassroom.com → Chemistry Tutorial → Chapter 7 → Lesson 1b

Level 1

Record your data at the right. Show your work below. Underline or box your final answer.

Isotope	Abundance (%)	Mass (a.m.u)
1		
2		

Level 2

Record your data at the right. Show your work below. Underline or box your final answer.

Isotope	Abundance (%)	Mass (a.m.u)
1		
2		
3		

Level 3

Record your data at the right. Show your work below. Underline or box your final answer.

Isotope	Abundance (%)	Mass (a.m.u)
1		
2		

Level 4

Record your data at the right. Show your work below. Underline or box your final answer.

Isotope	Abundance (%)	Mass (a.m.u)
1		
2		
3		