

PhET Isotopes and Atomic Mass

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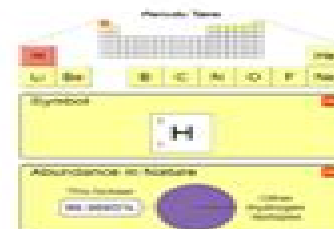
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Use the link <https://phet.colorado.edu/en/simulation/isotopes-and-atomic-mass> to go to the PhET website for the simulation Isotopes and Atomic Mass.

Begin with the **Isotopes and Atomic Mass**.



Click on the + symbols next to the bar with Symbol and Abundance in Nature to display the data.



You can build isotopes of different atoms by clicking on the symbol and adding or subtracting neutrons using the bowl of neutrons next to the scale. You can also click on the scale to change to Atomic Mass (amu).



Let's practice with Boron.

1) What are the symbol, atomic mass and abundance in nature of the isotope Boron - 11?



Now add one neutron to make Boron -12. Notice that the atom shakes. This indicates that the isotope is unstable. Unstable isotopes undergo radioactive decay. You will need to note this for other elements in the table below.

Symbol	$^{13}_6\text{C}$	$^{14}_7\text{N}$	$^{18}_8\text{O}$	$^{10}_4\text{Be}$	^4_2He	$^{19}_9\text{F}$
Name	Carbon-13		oxygen-18	Beryllium-10	helium-4	
Protons	6	7	8	4	2	9
Neutrons	7	6	10	6	2	10
Electrons	6	7	8	4	2	9
Atomic Mass	13.00335	13	17.99916	10.01353	4.00260	18.99840
Abundance	1.07%	0	0.205%	trace	99.9999	100%
Stable OR Unstable	stable	unstable	stable	unstable	stable	stable

Answers Isotopes And Atomic Mass Phet Sheet

**William McLatchie, McMaster
University. Department of Physics**

Answers Isotopes And Atomic Mass Phet Sheet:

Unveiling the Energy of Verbal Artistry: An Psychological Sojourn through **Answers Isotopes And Atomic Mass Phet Sheet**

In a world inundated with screens and the cacophony of instant interaction, the profound power and mental resonance of verbal art often disappear in to obscurity, eclipsed by the continuous barrage of noise and distractions. Yet, nestled within the musical pages of **Answers Isotopes And Atomic Mass Phet Sheet**, a captivating function of literary beauty that impulses with raw emotions, lies an remarkable trip waiting to be embarked upon. Published by way of a virtuoso wordsmith, that magical opus courses visitors on a mental odyssey, delicately exposing the latent possible and profound affect embedded within the intricate internet of language. Within the heart-wrenching expanse of this evocative examination, we shall embark upon an introspective exploration of the book is central themes, dissect their charming publishing design, and immerse ourselves in the indelible effect it leaves upon the depths of readers souls.

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