

Solar Elements

Here is a table of the most common chemical elements that make up the Sun:

Element	Abundance (% of total number of atoms)	Abundance (% of total weight)
Hydrogen	91.2%	71.0%
Helium	8.7%	27.1%
Oxygen	0.078%	0.97%
Carbon	0.043%	0.40%
Nitrogen	0.0088%	0.096%
Silicon	0.0045%	0.099%
Magnesium	0.0038%	0.076%
Neon	0.0035%	0.058%

source: NASA *Imagine the Universe!* web site,
http://imagine.gsfc.nasa.gov/docs/ask_astro/answers/961112a.html

The reason that the percentages are different between the two columns is that atoms of some elements are heavier than atoms of other elements.

1. Based on the above data, which is heavier, a Hydrogen atom or a Helium atom? Explain your reasoning.
2. Based on the above data, which is heavier, an Oxygen atom or a Carbon atom? Explain your reasoning.
3. Out of all the elements listed in the chart, which has the heaviest atoms? Tell how you get your answer.
4. Rank the elements according to the weight of their atoms. List the element with the heaviest atoms at the top and the element with the lightest atoms at the bottom.