



ISOTOPE WORKSHEET



1. What is an isotope?

2. What does the hyphenated number next to isotopes signify?

3. How can you tell isotopes of the same element apart?

4. Write the number of protons, neutrons, and electrons for the following isotopes. Assume all atoms are neutral.

	Carbon-12	Carbon-13	Carbon-14
# of protons			
# of neutrons			
# of electrons			

	Chromium-58	Chromium-63
# of protons		
# of neutrons		
# of electrons		

	Nitrogen-15	Nitrogen-20
# of protons		
# of neutrons		
# of electrons		

	Sodium-12	Sodium-20
# of protons		
# of neutrons		
# of electrons		

	Sulfur-23	Sulfur-25
# of protons		
# of neutrons		
# of electrons		

	Selenium-50	Selenium-55
# of protons		
# of neutrons		
# of electrons		



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Answers

1. What is an isotope?

Isotopes are different versions of the same element. They have the same number of protons and electrons as the element but different mass numbers and the number of neutrons.

2. What does the hyphenated number next to isotopes signify?

The number indicates the isotope's mass number.

3. How can you tell isotopes of the same element apart?

They will have different mass numbers and different numbers of neutrons.

4. Write the number of protons, neutrons, and electrons for the following isotopes.

Assume all atoms are neutral.

	Carbon-12	Carbon-13	Carbon-14
# of protons	6	6	6
# of neutrons	6	7	8
# of electrons	6	6	6

	Chromium-58	Chromium-63
# of protons	24	24
# of neutrons	34	39
# of electrons	24	24

	Nitrogen-15	Nitrogen-20
# of protons	7	7
# of neutrons	8	13
# of electrons	7	7

	Sodium-12	Sodium-20
# of protons	11	11
# of neutrons	1	9
# of electrons	11	11

	Sulfur-23	Sulfur-25
# of protons	16	16
# of neutrons	7	18
# of electrons	16	16

	Selenium-50	Selenium-55
# of protons	16	16
# of neutrons	34	39
# of electrons	16	16