Chemistry Honors WS Electron Orbitals

<u>Name</u>	<u>Date</u>	<u>Period</u>

Using what we've learned about quantum numbers, determine all of the allowable orbitals with the principal quantum number of 4. The necessary column headings with quantum number restrictions are given on both sides of this sheet.

n	ℓ	m _e	m _s	orbital	number of
n	(0 to n-1)	$(-\ell \text{ to } + \ell)$	$(-\frac{1}{2} \text{ or } +\frac{1}{2})$	notation	electrons

	ℓ	m_ℓ	m _s	orbital	number of
n	(0 to n-1)	$(-\ell \text{ to } + \ell)$	$(-\frac{1}{2} \text{ or } +\frac{1}{2})$	notation	electrons

Chemistry WS Electron Orbitals

<u>Name</u>	<u>Date</u>	<u>Period</u>

Using what we've learned about quantum numbers, determine all of the allowable orbitals with the principal quantum number of 4. The necessary column headings with quantum number restrictions are given on both sides of this sheet.

n	ℓ (0 to n-1)	m_{ℓ} (- ℓ to + ℓ)	m _s (-½ or +½)	orbital notation	number of electrons

n	ℓ (0 to n-1)	m_{ℓ} (- ℓ to + ℓ)	m _s (-½ or +½)	orbital notation	number of electrons