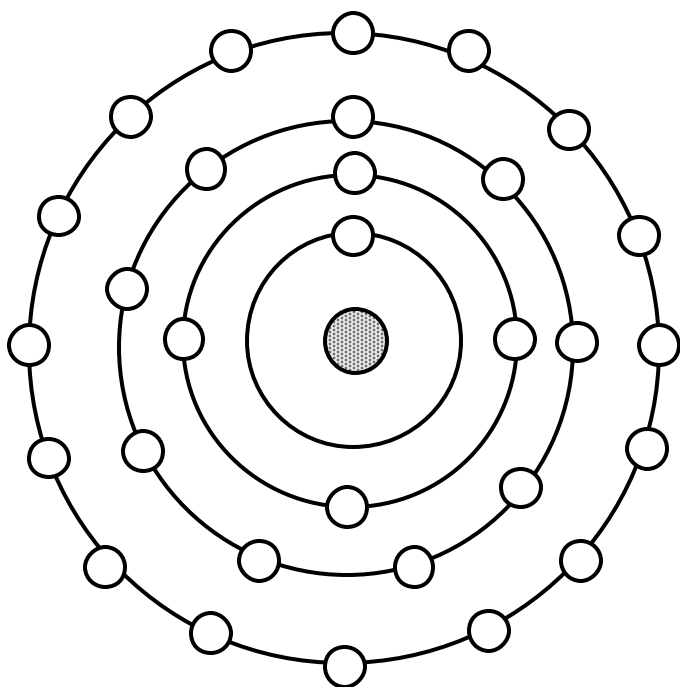


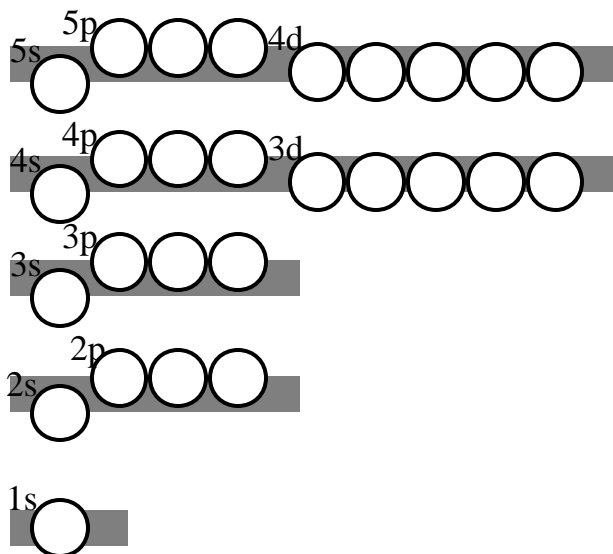
5 • What Do Atoms Look Like?

THE ATOMIC HOTEL

Floor	Suite s	Penthouse p	Deluxe d	Fantastic f
4	○	○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○
3	○	○ ○ ○	○ ○ ○ ○ ○	
2	○	○ ○ ○		
1	○			



Price Schedule for Rooms

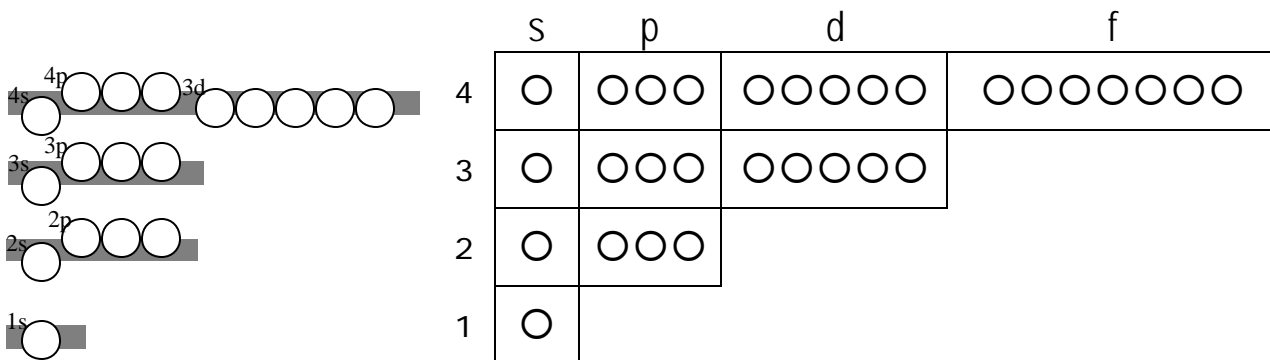


For each given neutral element, write in the number of electrons it has and then fill in the orbital diagram.

Element: C # of e ⁻ s: ____	Element: P # of e ⁻ s: ____	Element: O # of e ⁻ s: ____	Element: F # of e ⁻ s: ____	Element: Si # of e ⁻ s: ____	Element: B # of e ⁻ s: ____

Consider the element, Fe with 26 electrons.

Fill in the orbital diagram on the left and then fill in the orbitals on the right to match.

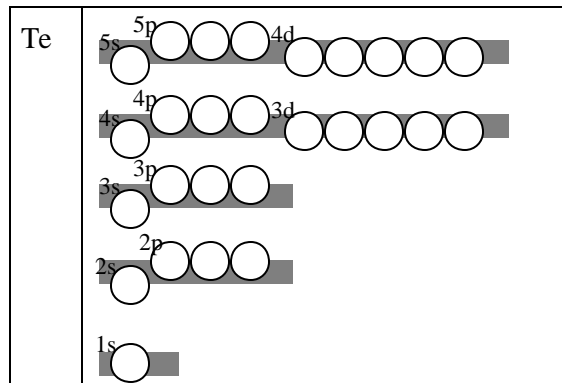
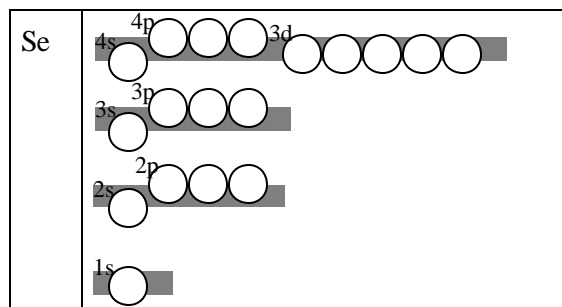
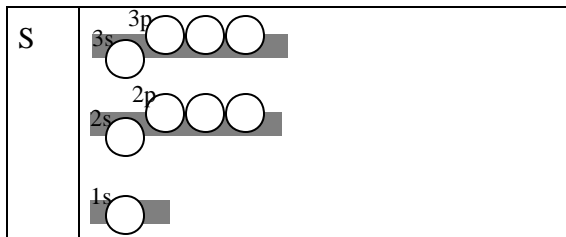
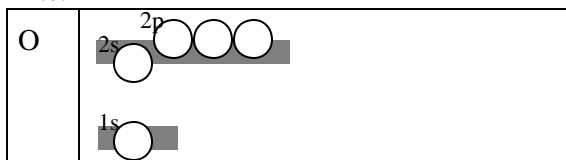


If you bumped into an iron atom (Fe), which electron(s) would you bump into? Draw a box around them.

Consider the Oxygen Family:

Draw the orbital diagrams for the four members of Family 14:

Draw a box around the electrons that you would bump into.



Family Similarities and the Number of Electrons You Would Bump Into:

Per	1	2	13	14	15	16	17	18
1	H							He
2	Li	Be	B	C	N	O	F	Ne
3	Na	Mg	Al	Si	P	S	Cl	Ar
4	K	Ca	Ga	Ge	As	Se	Br	Kr
5	Rb	Sr	In	Sn	Sb	Te	I	Xe
6	Cs	Ba	Tl	Pb	Bi	Po	At	Rn
7	Fr	Ra						