

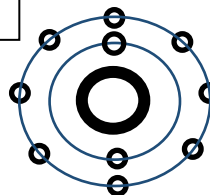
Column NUMBER

Valence Electrons

Tends to _____ electrons

Has a _____ charge, is a _____

Bohr



Lewis

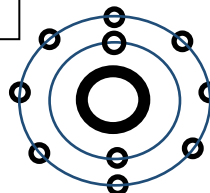
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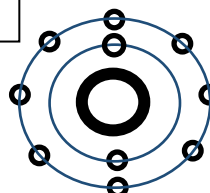
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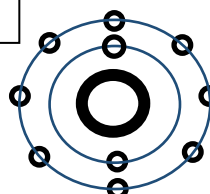
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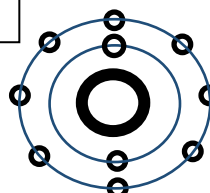
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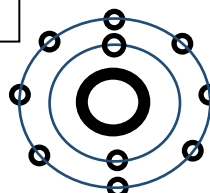
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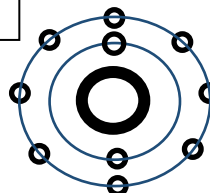
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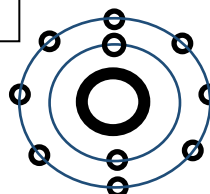
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Bohr



Lewis

Chemistry 1 Valence and Ionic Charge Review

Objective: Create a model to relate the names of groups of elements on the periodic table to the valence numbers for atoms of each element. Draw both the Bohr model (valence electrons only) and the Lewis Dot structure for a representative element of each group. Use this model to determine ionic charges of a representative atom for a group.

Instructions: Students will need a copy of the foldable, 8 different colors of pencils, and scissors and glue sticks for attaching to an interactive notebook. It is useful for the teacher to fill out a copy along with the students so that lower level students can have a visual for how theirs is supposed to look.

1. Fold the paper long ways on the line so the blank spots for the group names are on top. Model this for students.
2. Fold the strip that has the title along the line.
3. Have the students name the first group, then write it in the top box. Pick a color to shade the box in.
4. Have the students cut along the dotted line and open a flap. Show them all the information that they will have about that group. Ask the students to volunteer the answers to the boxes on the left and repeat them. Check for completion before moving to Bohr and Lewis.
5. Ask students to volunteer how many electron circle should be filled in on the Bohr model and check for completion before moving to the Lewis dot model. Remind students that the order of filling in electrons is top, bottom, left, right, then clockwise.
6. Ask students what the top most element is in that group and write the symbol for that element under the Lewis Dot title.
7. Ask the students how many dots belong with that element. Tell them that they can find this number 3 different ways (it's listed as Group #, Valence# and the number of electrons on the Bohr Model). Model this on the board if need be. Check for completion.
8. Return to step 3 and repeat until the entire foldable is filled out. Show students how much information is now at their fingertips.
9. Follow this with an assessment. Lower level classes will use the foldable, higher level classes can use this as a review and study guide.