

Grade 10/11/12

Distance Learning Module 7: Week of: May 18 - May 22

Chemical Bonding & Lewis Structures

Honors Chemistry - Modified from [Unit 7 - Chemical Bonding, Molecular Geometry, & Intermolecular Forces of Attraction](#)

Targeted Goals from Stage 1:

Content Knowledge: Ionic bonding results from the net attraction between oppositely charged ions closely packed together in a crystal lattice. Ionic solids have high melting points, are brittle, and conduct electricity when molten or in solution. Metallic bonding describes an array of positively charged cations surrounded by a sea of mobile electrons forming a crystal lattice. Metallic solids are good conductors of heat and electricity, have a wide range of melting points, and are shiny, malleable, and ductile. In covalent bonding, electrons are shared between the nuclei of two atoms to form a molecule or polyatomic ion. Electronegativity differences between the two atoms account for the distribution of shared electrons and the polarity of the bond.

Vocabulary:

Skills: Construct Lewis dot structures to depict the role of valence electrons in ionic and covalent bonds.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone at end of the week)
Monday: <i>Students can set their own pacing, but make sure to meet the weekly expectations shown below:</i> <ul style="list-style-type: none">● Watch Edpuzzle Video Covalent Bonding● Watch Edpuzzle Video on Electronegativity & Type of Bond● Complete Practice - Classification of Bond Type● Watch Flinn At Home Science Video on Chemical Bonding	DL_Objectives_Chapter 9 Edpuzzle - Mod7_Video 1_Covalent Bonding (Covalent Bonding) Edpuzzle - Mod7_Video 2_Electronegativity & Type of Bond Classification of Bond Type_ws	<input type="checkbox"/> answer embedded multiple choice while watching edpuzzle videos - grade will automatically transfer to Classroom gradebook from Edpuzzle when video is watched all the way to the end & show results button is checked <input type="checkbox"/> picture of or electronically submitted completed Classification of Bond Type

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone at end of the week)
<ul style="list-style-type: none"> Complete Accompanying Flinn Student Documents & Submit Save notes to submit when you have completed the module 	FLINN At-Home Science Series: L3—Chemical Bonding Chemical Bonding_Student Documents and Videos	<input type="checkbox"/> watched Flinn Lab Video & submitted a picture of or electronically completed practice Student documents to accompany At-Home Lab Activity
Tuesday: <ul style="list-style-type: none"> Watch Edpuzzle Video Lewis Diagrams Made Easy Watch Edpuzzle Video on Resonance Structures Complete Practice Distance Learning Lewis Dot Diagrams Use Interactive Practice Site - “Construct a Lewis Structure” to assist with Distance Learning Lewis Dot Diagram Save notes to submit when you have completed the module 	Edpuzzle - Mod7_Video 3_Lewis Diagrams Made Easy: How to Draw Lewis Dot Structures Edpuzzle - Mod7_Video 4_Resonance Structures DL_Lewis Dot Diagrams Construct a Lewis Structure	<input type="checkbox"/> view & answer embedded multiple choice while watching edpuzzle videos - grade will automatically transfer to Classroom gradebook from Edpuzzle when video is watched all the way to the end & show results button is checked <input type="checkbox"/> submitted picture of or electronically completed practice DL_Lewis Dot Diagrams
Wednesday: <ul style="list-style-type: none"> Watch Edpuzzle Video on Exceptions to the Octet Rule Watch Edpuzzle Video on Expanded Octets & Resonance Complete Wkst 9-4_Resonance Structures_Exceptions to Octet Rule Complete Save notes to submit when you have completed the module 	Edpuzzle - Mod7_Video 5_Exceptions to the Octet Rule Edpuzzle - Mod7_Video 6_Expanded Octets & Resonance WKST 9-4 Resonance Structures_Exceptions to Octet Rule	<input type="checkbox"/> view & answer embedded multiple choice while watching edpuzzle videos - grade will automatically transfer to Classroom gradebook from Edpuzzle when video is watched all the way to the end & show results button is checked <input type="checkbox"/> submitted picture of or electronically completed Wkst 9-4_Resonance Structures & Exceptions to the Octet Rule

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone at end of the week)
<p>Thursday:</p> <ul style="list-style-type: none"> • Watch Edpuzzle Video How to Calculate Formal Charges • Watch additional Edpuzzle Video on Formal Charges • Complete Practice_SB_pl3.fomal charge • Complete Wkst 9-3_Lewis Structures & Formal Charges • Use Interactive Practice Site - "Construct a Lewis Structure" to assist with Practice_SB_pl3.fomal charge & Wkst 9-3 • Save notes to submit when you have completed the module 	<p>Edpuzzle - Mod7_Video 7_Forma Charges: Calculating Formal Charge</p> <p>Edpuzzle - Mod7_Video 8_Forma Charge CO: How to Determine the Formal Charge of Carbon Monoxide</p> <p>Practice_SB_pl3.fomalcharge.pdf</p> <p>WKST_9-3_Lewis_Structures and Formal Charge</p>	<ul style="list-style-type: none"> <input type="checkbox"/> view & answer embedded multiple choice while watching edpuzzle videos - grade will automatically transfer to Classroom gradebook from Edpuzzle when video is watched all the way to the end & show results button is checked <input type="checkbox"/> submitted picture of or electronically completed Practice_SB_pl3.fomal charge <input type="checkbox"/> submitted picture of or electronically completed Wkst 9-3_Lewis Structures & Formal Charges
<p>Friday:</p> <ul style="list-style-type: none"> • Read through Unit 7 PowerPoint Slide Show & supplement Edpuzzle video notes • Complete Google Form Distance Learning Content Check 	<p>Chapter_9_ALL</p> <p>Google Form to be Posted Friday Morning</p>	<ul style="list-style-type: none"> <input type="checkbox"/> completed Distance Learning Google Form Chemical Bonding / Lewis Structures Content Check <input type="checkbox"/> Submit notes on Edpuzzle videos

Week criteria for success (attach student checklists or rubrics): By the end of this week, students should have:

- ☐ watched Edpuzzle videos and responded to embedded video questions where appropriate
- ☐ taken notes on weekly EdPuzzle videos and submitted notes to Google classroom
- ☐ completed Classification of Bond Type
- ☐ completed Student documents to accompany Flinn At-Home Lab Activity
- ☐ completed practice DL_Lewis Dot Diagrams
- ☐ completed practice Wkst 9-4_ Resonance Structures_Exceptions to Octet Rule

- ☐ completed Practice_SB_p13.formal charge
- ☐ completed practice Wkst 9-3_ Lewis Structures & Formal Charges
- ☐ completed Google Form Chemical Bonding / Lewis Structures Content Check

Supportive resources and tutorials for the week (plans for re-teaching):

- online virtual Q and A help sessions (see Google Classroom for times and invite codes)
- read and re-read the textbook
- watch and rewatch Edpuzzle videos
- practice worksheets and corresponding answer keys in Google Classroom