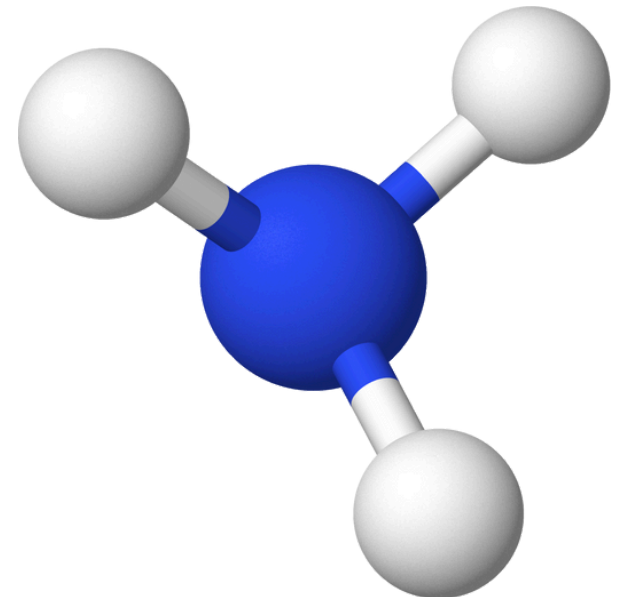
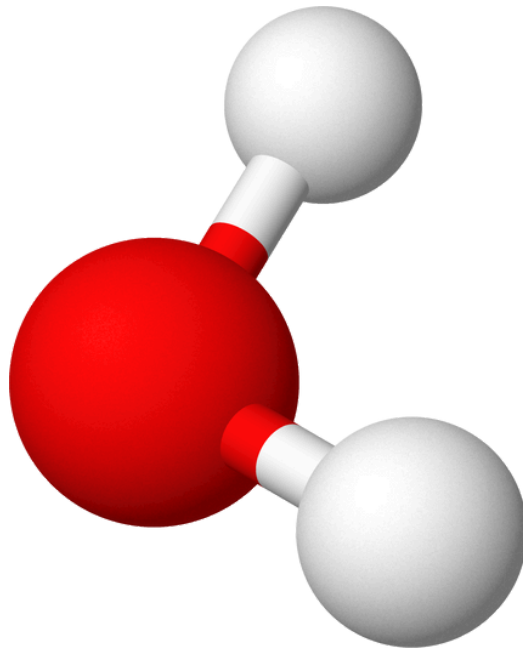


Chemical Bonding and Compounds Unit

- Covers: Chemical Formulas, Naming Compounds, Bonds
- Lesson & Engaging Activities
- Daily Teaching Schedule



Chemical Bonding and Compounds

Unit - Atomic Structure and the Periodic Table

- 5 Lessons
- 5 Activities

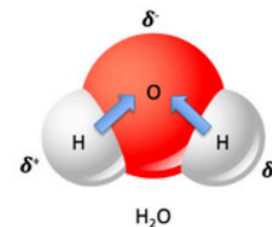
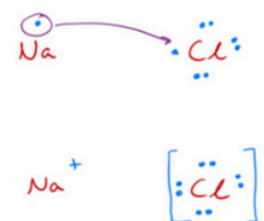
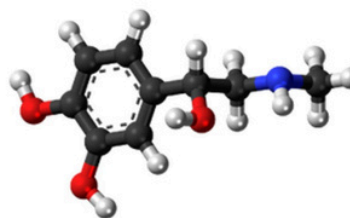
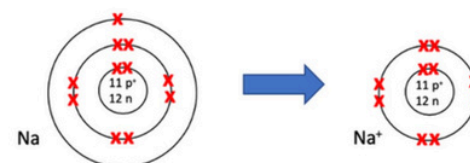
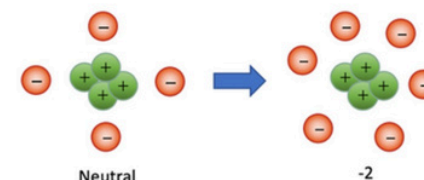
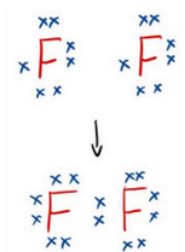


Atomic Mass, Subatomic Particles, and Isotopes

Naming Compounds

Types of Bonds

- An introduction to ions
- Review of electrons and protons
- Cation vs. Anions
- Determining ion charges
- Naming ions
- Valence electrons
- Lewis structures
- Ionic compounds
- The criss-cross rule
- Molecular compounds
- Single, Double, Triple bonds
- Naming compounds
- Writing formulas
- Diatomic gases
- Forces of Attraction
- Polar Covalent and Metallic Bonds



Lesson Includes Teacher and Student Versions - Videos Embedded in Lessons

Ions

- Subatomic Particles
- Inside the Atom
- Atoms and Ions
- Knowing the Charge
- Bohr-Rutherford Ion Diagrams
- Multivalent Ions – Naming and Formula Writing
- Role of Ions

Google Slides and PowerPoint Versions Include Google Classroom Ready

Lewis Structures

- Valence electrons
- Bohr-Rutherford Diagrams vs. Lewis Structures
- Drawing Lewis Structures
- Shortcut to drawing Lewis Structures

This digital presentation includes both Google Office resources and is Google Classroom Ready

Ionic Compounds

- Ions
- Ionic Compounds
- Drawing Ionic Compounds
- Examples
- Naming Ionic Compounds
- Ionic Compound Formulas
- The Criss-Cross Rule
- Multivalent Compounds
- Properties of Ionic Compounds

This digital presentation includes both Google Office resources and is Google Classroom Ready

Molecular Compounds

- Ionic compounds review
- examples
- Molecular compounds
- Electron sharing
- Single, Double, Triple bonds
- Naming compounds
- Writing formulas
- Diatomic gases

This digital presentation includes both Google Office resources and is Google Classroom Ready

Types of Chemical Bonds

- Forces of Attraction
- Ionic vs. Covalent Bonds
- Ionic Bonds Overview
- Covalent Bonds
- Single, Double and Triple Bonds
- Polar Covalent Bonds
- Metallic Bonds

This digital presentation includes both Google and Office resources and is Google Classroom Ready

Google Access

you for your purchase. Clicking the link button below will automatically create a copy of the Google resources and place them into your Google Drive. You'll find the folder inside the "Shared with me" section on the left side of your Drive.

Important: Before you click, make sure you're signed in to the Google account you'd like the resources placed into. If the resources are added to the wrong account, simply sign out and then into the correct one and repeat the process.

Click here to place a copy of your resources into your Google account

Google Classroom Ready One-Click Google Slides Access

Molecular Compounds

- Share electrons to form a stable arrangement
- Negative electrons are attracted to the positive nuclei of both atoms – This causes them to attract

Student and Teacher versions of the presentations

How Do Ions Impact You?

- Ions make up the salt you put on your food
- Ions are required for your brain to function
- Ions keep you alive by controlling your pH
- Ions allow you to move by controlling muscle contraction
- Ions are also called electrolytes that are found in sports drinks

Videos embedded directly into the slides. One-click access.

Engaging Activities

Device-Based Scavenger Hunt Types of Chemical Bonds

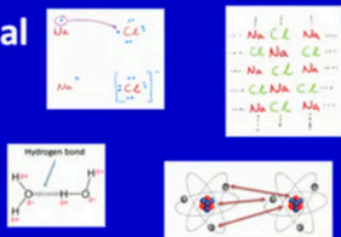


Includes

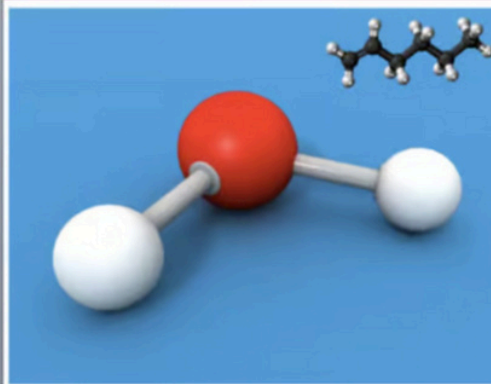
- 5 Unique Locations
- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks, and laptops

- 100% Digital
- Simulations
- Quizzes
- Videos
- Games
- and more

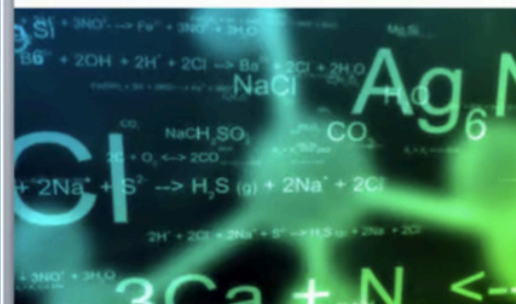


Types of Chemical Bonds Lab Station Activity



7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Molecular and Ionic Compounds Lab Station Activity



7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Molecular Compound Naming and Formula Writing

- 4 Worksheets (25 questions each)
- 2 Worksheets Formulas --> Names
- 2 Worksheets Names --> Formulas

Includes

- Molecular compounds
- All answers

TWF



75 Print-and-Go Questions

Ionic Compound Naming and Formula Writing

3 Separate Worksheets (30 questions each) to Scaffold Student Understanding

- Step 1: Ionic Compounds - No Polyatomics, No Multivalents
- Step 2: Ionic Compounds - Multivalents Included, No Polyatomics
- Step 3: Ionic Compounds - Polyatomics Included, Multivalents Included

TWF



90 Print-and-Go Questions

TWF

Daily Teaching Schedule

UNIT – Chemical Bonding and Compounds **12 DAYS TOTAL**

Chemical formulas - 11 days Naming compounds Types of Bonds • Ionic bonds • Covalent bonds • Metallic bonds			
Number of Day(s)	Course Content	Teaching Resources	NGSS
1	• An introduction to what ions are including net charge • Review of electrons and protons and their charges • Cation vs. Anions • Determining the charge of an ion • Ions Lewis Structure drawing • Naming Ions • Multivalent Ions • Application of Ions	Ions Introduction - Lesson	HS-PS1-1 HS-PS1-2 HS-PS1-3 HS-PS1-4 HS-PS1-7 HS-PS1-8 HS-PS2-6
1	• An overview of valence electrons • The rules for drawing Lewis structures • Lewis Structure shortcuts	Lewis Structures Lesson	
1.5	• Review of ions • Comprehensive introduction to ionic compounds • Drawing Lewis structures for ionic compounds • Writing the name for ionic compounds (both typical and multivalent) • Writing the formula for ionic compounds (both typical and multivalent) • The criss-cross rule • Properties of ionic compounds	Ionic Compounds - Lesson	
1	Review Activity	Ionic Compound Naming and Formula Writing Worksheet - 3 Tiered Worksheets	
1.5	• Ionic compounds review • Molecular compounds	Molecular Compounds - Lesson	

	• Electron sharing • Single, Double, Triple bonds • Naming compounds • Writing formulas • Diatomic gases		
1	Review Activity	Molecular Compound Naming and Formula Writing - 4 Worksheets	
1	Hands-on review activity	Molecular and Ionic Compounds - Lab Station Activity	
1	• Forces of Attraction • Ionic vs. Covalent Bonds • Ionic Bonds Overview • Covalent Bonds • Single, Double and Triple Bonds • Polar Covalent Bonds • Metallic Bonds	Types of Chemical Bonds - Lesson	
1	Hands-on review activity	Types of Bonds and Intermolecular Forces - Lab Station Activity	
1	Hands-on review activity	Types of Chemical Bonds – Digital Scavenger Hunt Activity	
Assessments	There are multiple assessments included throughout this unit portion.		

The Following Resources are Included

Atomic Mass, Subatomic Particles, and Isotopes

Naming Compounds

Types of Bonds

- [Ions Introduction - Lesson](#)
- [Lewis Structures - Lesson](#)
- [Ionic Compounds - Lesson](#)
- [Ionic Compound Naming and Formula Writing Worksheet - 3 Tiered Worksheets](#)
- [Molecular Compounds - Lesson](#)
- [Molecular Compound Naming and Formula Writing - 4 Worksheets](#)
- [Molecular and Ionic Compounds - Lab Station Activity](#)
- [Types of Chemical Bonds - Lesson](#)
- [Types of Bonds and Intermolecular Forces - Lab Station Activity](#)
- [Types of Chemical Bonds – Digital Scavenger Hunt Activity](#)

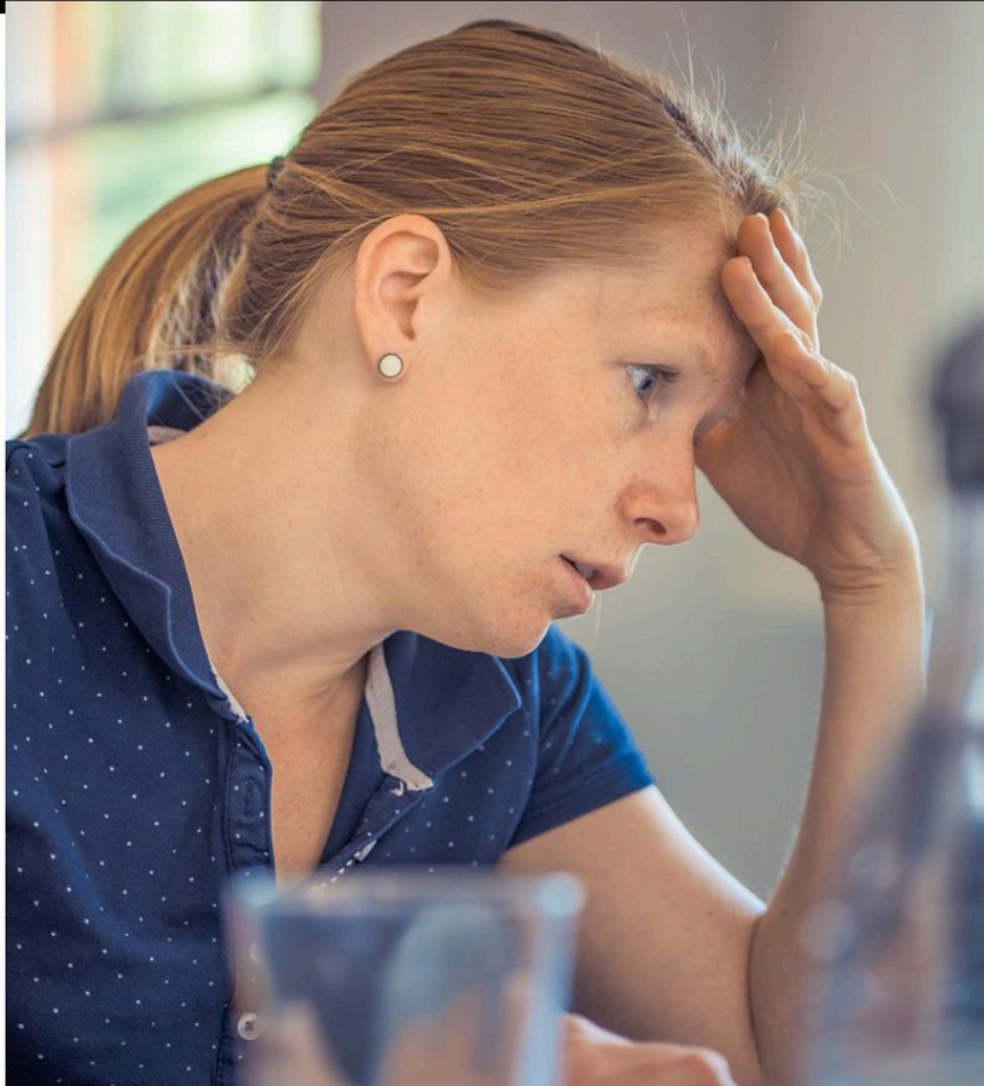
Who's It For?

- **High School Physical Science Teachers**



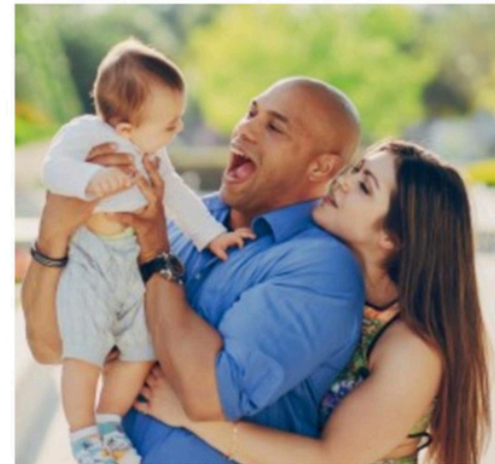
- **Teachers using NGSS**
- **Teachers who want to increase their student's engagement and retention**
- **Teachers not looking to reinvent the wheel**

Save yourself the **STRESS AND TIME**



TWF

Spend your time WISELY



TWF