

Physical Science Curriculum

- ✓ Complete Physical Science Curriculum
- ✓ Google & Distance Learning Ready
- ✓ Engaging, Inquiry-Based Lessons
- ✓ Comprehensive Coverage



No Prep - Ready to Go!

15 Complete Units with Lessons & Activities

UNIT 1 - Scientific Method and Lab Safety

- Scientific Method
- Lab Equipment and Safety

UNIT 2 - Matter and its Properties

- States of Matter
- Physical and Chemical Properties and Changes
- Cell Density

UNIT 3 - Atomic Structure and the Periodic Table

- Atomic Models
- Subatomic Particles
- Isotopes
- Periodic Table, Elements, and Trends

UNIT 4 - Chemical Bonding and Compounds

- Chemical Formulas
- Naming Compounds
- Types of Bonds – Ionic, Covalent, and Metallic

UNIT 5 - Chemical Reactions and Bonding

- Types of Chemical Reactions
- Balancing Equations

UNIT 6 - Solutions and Mixtures

- Solubility
- Concentration
- Acids and Bases
- pH Scale

UNIT 7 - Energy and Heat

- Forms of Energy and Transformations
- Renewable and Nonrenewable Forms of Energy
- Heat Transfer and Specific Heat Capacity

UNIT 8 - Waves and Sound

- Properties of Waves
- Types of Waves and Wave Behaviors
- Sound Waves and their Properties

UNIT 9 – Light and Optics 16 Days

- Properties of Light and the Electromagnetic Spectrum
- Reflection and Mirrors
- Refraction and Lenses

UNIT 10 – Forces and Motion 22 Days

- Types of Forces
- Newton's Laws of Motion
- Simple Machines

UNIT 11 – Work, Power, and Energy 11 Days

- Work and Energy
- Kinetic and Potential Energy
- Conservation of Energy and Energy Efficiency
- Power

UNIT 12 – Electricity and Magnetism 21-22 Days

- Static Electricity
- Electric Current and Circuits
- Ohm's Law
- Magnets, Magnetic Fields, and Electromagnetism

UNIT 13 – Earth Science 25 Days

- Earth's Composition
- Plate Tectonics
- Earthquakes, Volcanoes, and Tsunamis
- Rock Cycle
- Weather and Climate
- Seasons

UNIT 14 – Space Science 25-26 Days

- Space and Our Solar System
- Stars and Galaxies
- The Moon
- Life in Space and Space Exploration

BONUS - ENTIRE STORE ACCESS!

As a special bonus for purchasing, you will get access to my ENTIRE STORE for 6 months. That means unlimited access to all my

- ✓ Lessons**
- ✓ Lab Station Activities**
- ✓ Scavenger Hunts**
- ✓ Review Activities**
- ✓ Assessments and so much more!**

TWIF



Classroom Fit Guarantee

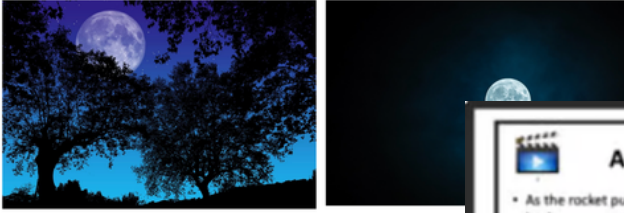
I want you to feel confident when you purchase from Teach With Fergy. If a resource is not the right fit for your students, simply contact me and I'll provide double your purchase amount in store credit toward another resource in my store.



Lessons Include Teacher and Student Versions - Videos Embedded in Lessons

The Moon Illusion

- Many people believe the rising moon is larger than when the Moon is high overhead (50-100% larger)
- The effect is entirely an illusion based on perspective
- On an hour-by-hour basis, the Moon is exactly the same size



Application

- As the rocket pushes the fuel out the back, _____
- This even occurs in space where there isn't any air to push against
- Rowing is another good example. As you push the water back, you go forward.



Application

- As the rocket pushes the fuel out the back, the fuel pushes back on the rocket to move the rocket forward
- This even occurs in space where there isn't any air to push against
- Rowing is another good example. As you push the water back, you go forward.



Student and Teacher versions of the presentations

The Periodic Table - Exit Ticket

teachwithfergy2014@gmail.com [Switch account](#) 

 Not shared

* Indicates required question

Elements on the periodic table are organized according to their * 1 point

☐ valence number.

☐ size.

☐ atomic number.

☐ atomic mass.

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Many lessons come with a 4-question, auto-graded Exit Ticket

Activities

Device-Based Scavenger Hunt Acids, Bases and pH



Includes

- 5 Unique Locations
- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks and laptops

100% Digital

- Simulations
- Quizzes
- Videos
- Games
- Word Scramble
- and more



Molecular Compound Naming and Formula Writing

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

Includes

- Molecular compounds
- All answers

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75 Print-and-Go Questions

Scientific Method Investigations

What's Included:

Print-and-Go Scientific Method
Experiments

Prep as the material
is provided or can easily
be found in any science
textbook

Experiment will take about
10-15 minutes to complete



Lab Safety Lab Station Activity



Station 1
Get Hands On - You are to
create a list of safety materials in
your classroom. You need to
include as many as you can in the
time given.

Station 5
Applicability Reading - Read the
following information article and
answer the associated questions.
Read below in the Applicability
Reading section of your packet.

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

Ionic Compound Naming and Formula Writing

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

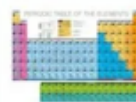
- Step 1: Ionic Compounds - No Polyatomics, No Multivalents
- Step 2: Ionic Compounds - Multivalents Included, No Polyatomics
- Step 3: Ionic Compounds - Polyatomics Included, Multivalents Included

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90 Print-and-Go Questions

Periodic Table and Elements Matching Game



Magnesium	Atomic #12	Nonmetal at room temperature
Atomic mass rounds to 24 amu	Metal at room temperature	Nitrogen
Alkaline-Earth Metal	Forms a +2 ion	

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and interactive way to learn and review element
characteristics and the periodic table. Perfect for all grades
can use whichever cards best fits your classroom



Story Prompt

The Energy Explorers and
the Temple of Tante

Energy Forms and Transformations Word Search and Scramble

THREE Activities in One!

1. Basic 25-Term Word Search
2. Scrambled Words Word Search
3. Word Scramble and Define Activity



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The Particle Theory and the Classification of Matter Lab Station Activity



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

Who is it for?

- **High School Physical Science Teachers**
- **Teachers using NGSS**
- **Teachers who want to increase their student engagement and retention**
- **Teachers not looking to reinvent the wheel**

What You Get

Complete Lessons

- Make sure your students are on track
- Teacher and student versions to keep them focused
- 4-Question, auto-graded exit ticket for most lessons
- Videos linked directly into lesson slides

Activities and Assessments

- Culminating projects
- Science reading articles and case studies
- Lab station activities
- Digital scavenger hunt activities
- Digital boom cards
- Bell ringers and exit tickets
- Crosswords, word searches, and word scrambles



Daily Teaching Schedule

UNIT 1 – Introduction to Physical Science and Measurement **11-12 DAYS TOTAL**

Scientific Method – 9 – 10 days			
Number of Day(s)	Course Content	Teaching Resources	NGSS
5	- Scientific Literacy - Science Lab Safety - WHMIS, MSDS, HHPS - Observations vs. Inferences - Significant Digits/Figures - Scientific Notation - The Scientific Method - Metric Conversions	Scientific Method, Skills and Safety - Lesson	HS-ETS1-1 HS-ETS1-2 HS-ETS1-3 HS-PS1-5 HS-LS1-3 HS-ESS2-5
1	Hands-on review activity	Scientific Method - Lab Station Activity	
2-3	Hands-on review activity	Scientific Method Investigations - 6 Student-Led Experiments	
1	Review activity	The Scientific Method Word Search and Scramble Activity	

Lab Equipment and Safety – 2 days

Number of Day(s)	Course Content	Teaching Resources	NGSS
1	Hands-on review activity	Lab Safety - Lab Station Activity	HS-ETS1-3
1	Review activity	Lab Equipment - Science Word Search and Scramble Activity	
Assessment(s)	There are multiple assessments included throughout this unit. UNIT TEST		

UNIT 4 – 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	
	Review Activity	Ionic Compound Naming and Formula Writing Worksheet - 3 Tiered Worksheets	
	- Ionic compounds review - Molecular compounds	Molecular Compounds - Lesson	

UNIT 6 – Solutions and Mixtures - **9 DAYS TOTAL**

Solubility and Concentration – 2 - 4 days			
Number of Day(s)	Course Content	Teaching Resources	NGSS
1-2	- Solutions - Solvents and Solutes - Dilute vs. Concentrated - Saturated & Unsaturated - Supersaturated - Solubility - Polar Water - Ionization - Electrolytes - Hydration - Temperature and Solubility	Solutions and Solubility - Lesson	
1-2	- Solutions, Solvents, and Solutes - Concentration - Calculating % Solution by Mass - Mass/Volume % Concentration - Calculating Molarity (mol/L à M) - Mole Equations - Calculating Molarity - Calculating Ion Concentrations - Preparation of Solutions	Calculating Concentration and Molarity - Lesson	
Assessments	There are multiple assessments included throughout this unit.		

Office and Google Versions

- The lessons inside this unit come in both PowerPoint and Google Slides format
- Each lesson also contains an Exit Ticket that you can use to check for student understanding
- Your resource is perfect for distance learning and integrates seamlessly with Google Classroom as I've included a link that will automatically create a copy of the resources and put them directly into your Google Drive with one click



Save yourself the **STRESS AND TIME**



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Spend your time WISELY

