ENLIGHTIUM ACADEMY

PRINTABLE SUPPLY LIST FOR

Chemistry

Standard Course

UNIT	PROJECT	BOOK / ITEM	NOTES
		• Access to research materials (internet, local library, etc.) • A metric ruler • A stopwatch or a timer (smartphone app is OK) • Microsoft© Excel© (or a similar program) • Microsoft © Word © (or a similar program)	General purchases.
1. *Measurement and Analysis*	*Observations, Measurements, and Analysis*	• Three objects from around home	
2. *Starting the Investigation: How to Identify Elements, Compounds, and Mixtures*	*Identifying Types of Mixture*	• Three clear glasses with smooth sides • A laser pointer or flashlight • Red Jell-O • Red food coloring • Sugar (white)	
3. *Exploring the Laws for Gases and Conservation of Mass*	*Demonstrating the Gas Laws*	• Stove top • Three soda pop cans (empty) • Tablespoon • Tongs • Gloves • Bowl • Cold water and ice	

4. *The Discovery of Atoms: Nature's Building Blocks*	*Choose a Product (Discovery of Atoms)*	• Supplies depend on what product students choose to create; options will include creating a children's book, essay, experiment, video, song, etc.	
5. *Molecular Structure*	*Modeling Chemical Bonding*	• Access to printer (to print downloadable document) • Scissors • Pushpins • Bulletin board	*If you do not have push pins and a bulletin board, you may use something else to represent the electrons (e.g., small rocks, coins, round candy, chocolate chips, etc.)*
6. *Chemical Reactions, Rates, and Equilibrium*	*Measuring Chemical Reaction Rates*	• Baking soda • Vinegar • Four plastic, water bottles (must all be same size) • Funnel • Teaspoon • Tablespoon • Four balloons (same size) • Food coloring (optional) • Piece of string (at least 12-inches long) • Ruler or meter stick	
7. *Equilibrium Systems*	*Examining Solubility*	• Rubbing alcohol or hydrogen peroxide • Club soda or clear soda • Cooking oil • Table salt • Baking soda • Table sugar • Epsom salt • Sand/rocks • Clear cups or glasses • Spoons to stir • Measuring teaspoon • Measuring tablespoon	
8. *Carbon Chemistry: Hydrocarbons*	*Choose a Product (Final Chem Project)*	• Supplies depend on what product students choose to create; options will include creating a children's book, essay, experiment, video, song, etc.	

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9. *Carbon Chemistry: Hydrocarbons*	*Observing Volatility*	• Acetone • Isopropyl alcohol • Mineral oil • Water • Four test tubes or other equal size glass containers • Grease marker or masking tape • Ruler • Goggles	The liquids can be substituted if they are inaccessible.
10. *Carbon Chemistry: Functional Groups*	*Turning Milk into Plastic*	• 4 identical mugs or heat resistant cups (able to hold 8oz or more) • Masking tape • Pen/permanent marker • Teaspoon • White vinegar (8oz or more) • 1 gallon of milk (nonfat, 1%, 2%, or whole) • Microwavable cup or container (large enough to hold 4 cups of milk (ask your teacher for an example) • Microwave • Cooking or candy thermometer (ask your teacher for an example) • 4 spoons • 12, 6” x 6” cloths (can cut up old shirts) • 4 rubber bands • 4 clear plastic or glass drinking cups (able to hold 8oz or more) • Kitchen scale (accurate to 1 gram; ask your teacher for an example) • 12 squares of wax paper (about the size of scale’s weighing surface) • Paper towels	
11. *Chemistry Review*	*Project: Create a Product (Chem Review)*	• Supplies depend on what product students choose to create; options will include creating a children’s book, essay, experiment, video, song, etc	