

Chemistry Capstone Project Semester 1

1. Gather Information: Each unit has an end of unit assessment sheet that checks for student understanding of unit objectives from the curriculum. These will be checked and approved to ensure students are on track with correct/accurate content information

- Energy and Electricity
- Matter and Measurement
- Atomic Structure
- Periodic Table
- Bonding
- Carbon Chemistry

2. Find/ Create 2 pictures for each of the above units

3. Integrate information and pictures into chosen media format for presentation

4. Transfer Goals for Chemistry Capstone Project

1. Communication: Convey information, ideas, and/ or emotions using a variety of media to targeted audiences for a given purpose

- Express ideas clearly
- Create quality products in chosen media

2. Research: recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information

- Use a variety of information-gathering tools and techniques
- Examine a variety of sources
- Assess quality of information

3. Creative Thinking: perceive the world in new ways, find hidden patterns, make connections between seemingly unrelated phenomena, and generate new and imaginative solutions

- Connect disparate elements or ideas
- Views a situation outside the boundaries of standard conventions

Check it off	<p style="text-align: center;">Information Components</p> <p style="text-align: center;"><u>Presentation contained information on all necessary sections.</u></p>	Suggested # of Slides
	Choose your presentation format. Get it approved!	
	Title "Slide" Includes 1) student name, 2) a picture of your item 3) Prior Knowledge Prompt: Bring an item from home that you think is related to chemistry. Explain why your item is related to chemistry in your own words!	1
	Energy and Electricity <ul style="list-style-type: none"> • What type of energy does your object have • Does it undergo any energy transformations • Is it made from renewable or non-renewable resources • 2 Pictures/diagrams/visuals 	2-3
	Matter and Measurement <ul style="list-style-type: none"> • List 1 physical property of your item • List 1 chemical property of your item • Measure the mass or density of your item, include units • 2 Pictures/diagrams/visuals What role do you think the physical & chemical properties have to do with its design or the way it works?	4-5
	Atomic Structure For the most common atom in your object identify the following: <ul style="list-style-type: none"> • Symbol • Atomic number • Atomic mass • # Protons, neutrons, electrons • Are there any isotopes of the atom • 2 Pictures/diagrams/visuals 	6-7
	Periodic Table and Bonding <ul style="list-style-type: none"> • Location on the periodic table (family, metal/nonmetal/metalloid) • Include 2 periodic trends • What type of bonds does your object undergo? Use a Lewis dot diagram to show this bonding • 2 Pictures/diagrams/visuals What are some characteristics about your product that can be related to its position on the periodic table?	8-10
	Carbon Chemistry <ul style="list-style-type: none"> • Does your item contain carbon atoms (explain yes or no) • Does your item contain hydrocarbons (explain yes or no) • 2 Pictures/diagrams/visuals My item _____, is related to carbon chemistry because _____.	11-12
	Work Cited <ul style="list-style-type: none"> • Cite all websites and books used • Cite where all pictures came from 	13

Name: _____ Object: _____ Period: _____



Student Checklist

You can use this checklist to help you manage your time. You will have 5 days in the media center. Some of you will need to put in extra time if your content sheets are not complete.

	What I got done today	What I need to get done tomorrow
Monday	<input type="checkbox"/> Picked presentation method <input type="checkbox"/> Found pictures for Energy & Electricity	
Tuesday	<input type="checkbox"/> Found pictures for Matter & Measurement, Atomic structure, Periodic Table, Bonding & Carbon	
Wednesday	<input type="checkbox"/> Created "slides" for Energy & Electricity <input type="checkbox"/> Created "slides" for Matter & Measurement	
Thursday	<input type="checkbox"/> Created "slides" for Atomic Structure <input type="checkbox"/> Created "slides" for Periodic Table and Bonding	
Friday	<input type="checkbox"/> Created "slides" for Carbon Chemistry <input type="checkbox"/> Work Cited websites and pictures need to be cited	* This will need to be done on your own time*

