

Date: November 19, 2018

School Day: 064

Learning Objectives – “Students CAN...”

1. Analyze new concept vocabulary – Vocabulary Enhancement (BW)
2. Chemistry 101: Periodic Table & Atomic Structures - Handout

Assessment

In-class completion of the notebook/bell work
Chemistry 101: Periodic Table & Atomic Structures - Handout

Homework

1. Atomic Structures Handout: Chemistry 101 – TBA
2. Study/Memorize Elements 1-10 - TBA
3. Complete BW vocabulary (1-5) – 11/19
4. Science Fair: Conclusion (Rough Draft) – 11/20

Reminders / DO NOT COPY

SCIENCE FAIR CALENDAR

Model notebook entries can be found below at the Teacher’s NB. Use this resource to keep your notebook accurate.

Bell work

Using the vocabulary list provided at your seat: *Complete the five starred* terms*

For each term on the list you may do one of the following:

- Copy
- Summarize
- Provide an example

Incomplete or incorrect vocabulary will be scored accordingly.

No pictures – Text only

****Vocabulary assignments must be complete prior to notebook assessments – please plan/prepare accordingly.**

Linked Documents and Class Resource

[Teacher’s NB 11/19](#)

[Atomic Structures Handouts & KEY](#)

[Vocabulary 7-1² ↓](#)

[Periodic Table \(Printable\)](#)

District Content Descriptor:

Construct, use, and present oral and written arguments supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon. (07-PS3-5)

Modeling in 6–8 builds on K–5 and progresses to developing, using and revising models to describe, test, and predict more abstract phenomena and design systems - **Develop a model to describe unobservable mechanisms.** (07-PS3-2)

Science Fair – Best Practices Modeling Sequence / Population & Behavior Studies

Fayette County
2018-19
District Content Map

Week 15: November 19 – November 20, 2018

©Weger 2018 – 19

Learning Objectives – “Students CAN...”

1. Current events in science – refine our reading practices, and increase vocabulary (BW)
2. Science Fair Conclusion / Peer Review – Final Check Up

Assessment

In-class completion of the notebook/bell work
Science Fair Conclusion / Peer Review – Final Check Up

Homework

1. **ALL results for science fair are due upon return – 11/26**

Work Description: Using our in-class labs as models, you will need to replicate a complete experiment with your own results. Question, Hypothesis, Experimental Design, Data Collection, Appropriate Graphs and Experimental Summary / Conclusion

Reminders / DO NOT COPY

SCIENCE FAIR CALENDAR

Model notebook entries can be found below at the Teacher’s NB. Use this resource to keep your notebook accurate.

Bell work

Using good-practice reading techniques, read this week’s science article. When you finish reading, complete the article questions below.

1. **Why did wild turkey nearly go extinct? What was the cause?**
2. **When they report that wild turkey have created “problems” – what kind of problems? Identify two**
3. **Using the eco-idea of the “domino effect” why has it been so easy for the wild turkey to return to such great numbers?**
4. **Are humans responsible for being eco-friendly? Why should we be careful when we change the natural world?**

Linked Documents and Class Resource

[Teacher’s NB 11/20](#)

[Science Article: TURKEY](#)

[Peer Review Rubric](#) ↓

[SCIENCE FAIR PP TEMPLATE](#)

District Content Descriptor:

Construct, use, and present oral and written arguments supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon. (07-PS3-5)

Modeling in 6–8 builds on K–5 and progresses to developing, using and revising models to describe, test, and predict more abstract phenomena and design systems - **Develop a model to describe unobservable mechanisms.** (07-PS3-2)

Science Fair – Best Practices Modeling Sequence / Population & Behavior Studies

*Fayette County
 2018-19
 District Content Map*

Date: N/A	School Day: N/A	
Learning Objectives – “Students CAN...” 1. Use critical thinking to solve a problem. (BW) N/A – School is not in session / Thanksgiving Holiday	Assessment In-class completion of the notebook/bell work	
Homework 1. ALL results for science fair are due upon return – 11/26 Work Description: Using our in-class labs as models, you will need to replicate a complete experiment with your own results. <i>Question, Hypothesis, Experimental Design, Data Collection, Appropriate Graphs and Experimental Summary / Conclusion</i> Reminders / DO NOT COPY <u>SCIENCE FAIR CALENDAR</u> Model notebook entries can be found below at the Teacher’s NB. Use this resource to keep your notebook accurate.	Bell work Complete today’s challenge question in the notebook. When you finish, record your answer on a small piece of paper and place it in the solutions chest at the front of the room. N/A – School is not in session / Thanksgiving Holiday	
Linked Documents and Class Resource <u>SCIENCE FAIR PP TEMPLATE</u>		
District Content Descriptor: Patterns - Macroscopic patterns are related to the nature of microscopic and atomic-level structure. (07-PS1-2) Energy and Matter - Matter is conserved because atoms are conserved in physical and chemical processes. (07-PS1-5) - The transfer of energy can be tracked as energy flows through a designed or natural system. (07-PS1-6) ----- Modeling in 6–8 builds on K–5 and progresses to developing, using and revising models to describe, test, and predict more abstract phenomena and design systems - Develop a model to describe unobservable mechanisms. (07-PS3-2) Science Fair – Best Practices Modeling Sequence / Population & Behavior Studies		<i>Fayette County 2018-19 District Content Map</i>
Week 14: November 12 – November 16, 2018		©Weger 2018 – 19

Date: N/A	School Day: N/A	
Learning Objectives – “Students CAN...” 1. Analyze and respond to the YouTube – Q Review. (BW) N/A – School is not in session / Thanksgiving Holiday	Assessment In-class completion of the notebook/bell work	
Homework 1. ALL results for science fair are due upon return – 11/26 Work Description: Using our in-class labs as models, you will need to replicate a complete experiment with your own results. Question, Hypothesis, Experimental Design, Data Collection, Appropriate Graphs and Experimental Summary / Conclusion Reminders / DO NOT COPY SCIENCE FAIR CALENDAR Model notebook entries can be found below at the Teacher’s NB. Use this resource to keep your notebook accurate.	Bell work YouTube Science – Watch the video and respond to the questions below. N/A – School is not in session / Thanksgiving Holiday	
Linked Documents and Class Resource SCIENCE FAIR PP TEMPLATE		
District Content Descriptor: Patterns - Macroscopic patterns are related to the nature of microscopic and atomic-level structure. (07-PS1-2) Energy and Matter - Matter is conserved because atoms are conserved in physical and chemical processes. (07-PS1-5) - The transfer of energy can be tracked as energy flows through a designed or natural system. (07-PS1-6) ----- Modeling in 6–8 builds on K–5 and progresses to developing, using and revising models to describe, test, and predict more abstract phenomena and design systems - Develop a model to describe unobservable mechanisms. (07-PS3-2) Science Fair – Best Practices Modeling Sequence / Population & Behavior Studies		Fayette County 2018-19 District Content Map

Date: N/A	School Day: N/A	
Learning Objectives – “Students CAN...” 1. Share ideas by writing a paragraph in their <u>science journal</u> . (BW) N/A – School is not in session / Thanksgiving Holiday	Assessment In-class completion of the notebook/bell work	
Homework 1. ALL results for science fair are due upon return – 11/26 <i>Work Description: Using our in-class labs as models, you will need to replicate a complete experiment with your own results. Question, Hypothesis, Experimental Design, Data Collection, Appropriate Graphs and Experimental Summary / Conclusion</i> Reminders / DO NOT COPY <u>SCIENCE FAIR CALENDAR</u> Model notebook entries can be found below at the Teacher’s NB. Use this resource to keep your notebook accurate.	Bell work Science Journal: Day <u>N/A</u> Complete a paragraph containing no less than <u>five</u> additional sentences that continue the lead below. N/A – School is not in session / Thanksgiving Holiday	
Linked Documents and Class Resource <u>SCIENCE FAIR PP TEMPLATE</u>		
District Content Descriptor: Patterns - Macroscopic patterns are related to the nature of microscopic and atomic-level structure. (07-PS1-2) Energy and Matter - Matter is conserved because atoms are conserved in physical and chemical processes. (07-PS1-5) - The transfer of energy can be tracked as energy flows through a designed or natural system. (07-PS1-6) ----- Modeling in 6–8 builds on K–5 and progresses to developing, using and revising models to describe, test, and predict more abstract phenomena and design systems - Develop a model to describe unobservable mechanisms. (07-PS3-2) Science Fair – Best Practices Modeling Sequence / Population & Behavior Studies		<i>Fayette County 2018-19 District Content Map</i>

Vocabulary 7-1²

You are expected to familiarize yourself with these concept terms – complete the terms that are (*) as part of the weekly bell work.

Vocabulary Term	Definition
Line of best fit	a line of best fit (or "trend" line) is a straight line that best represents the data on a scatter plot.
Atom	the basic unit of a chemical element
Chemical Change*	usually irreversible chemical reaction involving the rearrangement of the atoms of one or more substances and a change in their chemical properties or composition, resulting in the formation of at least one new substance
Correlation	A mutual relationship or connection between two or more things
Subatomic Particles*	a stable subatomic particle with a charge of negative electricity
Electron (-)	a stable subatomic particle occurring in all atomic nuclei, with a positive electric charge equal in magnitude to that of an electron, but of opposite sign
Proton (+)	
Neutron (=)	a subatomic particle of about the same mass as a proton but without an electric charge
Element	each of more than one hundred substances that cannot be broken down into simpler substances
Macroscopic	visible to the naked eye; not microscopic
Periodic Table	a table of the chemical elements arranged in order of atomic number, usually in rows, so that elements with similar atomic structure appear in vertical columns.
Physical Change*	changes affecting the form of a chemical substance, but not its chemical composition
Reactivity*	the degree to which a thing is reactive - having a tendency to respond chemically
Regression Line	SEE – Line of best fit

Science Fair: Conclusion (Peer Review)

Think Pair Share / Read & Review

We have modeled every step of the experimental process, from initial observations and variable identification to creative problem solving and technical measurement. The result of these is an experimental summary known as a conclusion.

Use the checklist and feedback squares below to review your partner's work.

Part(s):	Description:	Feedback:					
Part 1: <u>Q</u> uestion / Observation	The student has included a question that is experimental – <i>The student should be able to explain how they tested the question. "Explain a test trial"</i>	<input type="checkbox"/> Response was thoughtful and student clearly understands this part of the summary-conclusion.					
		<table border="1"> <tr> <td>10</td> <td>10</td> <td>10</td> <td>10</td> <td></td> </tr> </table>	10	10	10	10	
10	10	10	10				
Part 2: <u>H</u> ypothesis	The student has included a hypothesis that makes a prediction and uses common-sense reasoning. <i>The student should be able to tell you why they thought their prediction would be true. "What have you seen that explains your prediction"</i>	<input type="checkbox"/> Response was incomplete and non-specific student had difficulties with this part of the summary-conclusion.					
		<table border="1"> <tr> <td>7.5</td> <td>7.5</td> <td>7.5</td> <td>7.5</td> <td></td> </tr> </table>	7.5	7.5	7.5	7.5	
7.5	7.5	7.5	7.5				
Part 3: <u>D</u> ata Analysis	The student has included quantitative data to support their work. (Data tables, graphs or descriptive journals) This data should both answer the experimental question and provide supporting evidences of their work. <i>The student should be able to show you how the data answers the question by providing specific examples. "How do your results answer your experimental question"</i>						
Part 4: <u>S</u> ummary	The student has included a response to the hypothesis that explains if their prediction was correct or incorrect and supporting key evidences that prove their claim true. <i>The student must provide convincing evidence and a statement at the end that is true. "What did you learn"</i>	<input type="checkbox"/> Student was unable to explain this part of the summary-conclusion.					
		<table border="1"> <tr> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td></td> </tr> </table>	5	5	5	5	
5	5	5	5				
Non-Performing Student / NO PROJECT	Student has made no effort to complete a summary and will receive no credit for the assigned work.	<input type="checkbox"/> Student has indicated they will not be completing a science fair project.					
		<table border="1"> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>TOTAL</td> </tr> </table>	0	0	0	0	TOTAL
0	0	0	0	TOTAL			
	Calculate the total for each part and present your review to your peer. <i>Allow them to ask questions – they will use this document to improve their work.</i>						