Date: August 20. 2018 | **School Day:** 004

Learning Objectives – "Students can…"

1. Analyze new concept vocabulary – Vocabulary Enhancement (BW)

2. Lab 1-1 (Confetti Canon) The Value of Science & Small Group Hypothesis / Prototype (Day 1)

Assessment

- In-class completion of the notebook/bell work (f)
- Students will propose solutions to a problem – Lab 1

Homework

1. Complete bell work vocabulary (5 terms) - 8/22

2. Complete the small group hypothesis – prototype design – 8/21

3. Collect 2-3 cereal boxes for the roller coaster lab – 8/23

4. Turn in $15.00 lab supplies fee ASAP – 8/23*

Bell work

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

For each term on the list you may do <u>one</u> 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 8/20* | *CC Lab 1-1 Handouts* | *Vocabulary 1-1 ↓ @ Bottom*

District Content Descriptor:

- Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

Fayette County 2016-17 District Content Map

Date: August 21. 2018 | **School Day:** 005

Learning Objectives – "Students can…"

1. Analyze and respond to our weekly Science Article: Urine/Phosphorus (BW)

2. Lab 1-1 (Confetti Canon) Data Collection (Day 2)

Assessment

In-class completion of the notebook/bell work (f)
Lab 1-1 (Confetti Canon) Data Collection – Lab 1

Homework

1. Complete bell work vocabulary (5 terms) - 8/22

2. Complete data collection (Day 1) – 8/22

3. Collect 2-3 cereal boxes for the roller coaster lab – 8/24

4. Turn in $15.00 lab supplies fee ASAP – 8/23*

Bell work

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

1. **Who was responsible for making this unusual discovery?**
2. **Why was this discovery disappointing – what was Hennig attempting to do?**
3. **What was Hennig's *reasoning* behind his experimentation?**
4. **Why was the urine of "beer-drinkers" better?**
5. **Describe the characteristics of <u>phosphorous</u> –** provide supporting details from the text.
6. **What happened to Hennig, was his work successful?** Explain your response.

Linked Documents and Class Resource | *Teacher's NB 8/21* | *Science Article 1-1: Urine/Phosphorus* | *CC Lab 1-1 Handouts*

District Content Descriptor:

- Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

Fayette County 2016-17 District Content Map

Date: August 22. 2018 | **School Day:** 006

Learning Objectives – "Students can…"

1. Use critical thinking to solve a problem. (BW)

2. Lab 1-1 (Confetti Canon) Data Collection (Day 3) & Trial and Error

Assessment

In-class completion of the notebook/bell work (f)
Lab 1-1 (Confetti Canon) Data Collection (Day 2)

Homework

1. Complete data collection (Day 2) – 8/23

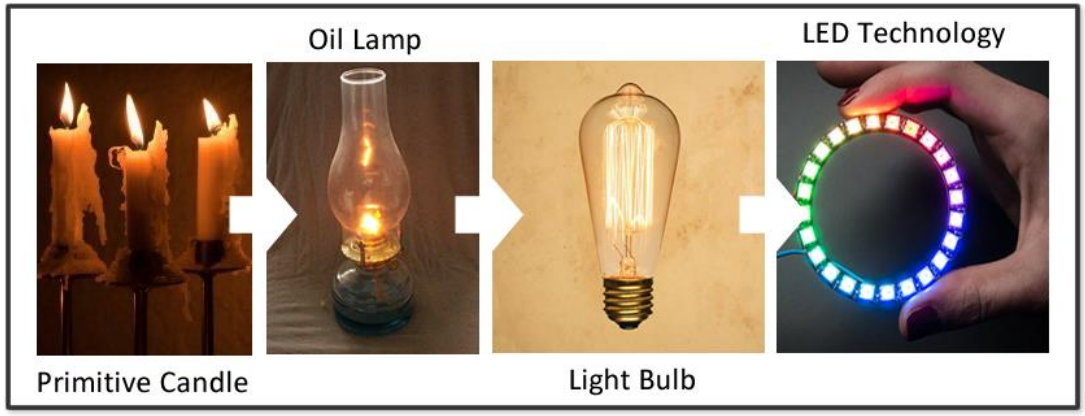
2. Collect 2-3 cereal boxes for the roller coaster lab – 8/24

3. Turn in $15.00 lab supplies fee ASAP – 8/23*

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.

Observe each of the following light sources from left to right – Can you think of how each one improves upon the last? Give one example for each.



Linked Documents and Class Resource *Teacher's NB 8/22* *CC Lab 1-1 Handouts*

District Content Descriptor:

- Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

Fayette County 2016-17 District Content Map

Date: August 23. 2018 | **School Day:** 007

Learning Objectives – "Students can…"

1. Analyze and respond to the YouTube - Q Review. (BW) *Innovation*

2. Lab 1-1 (Confetti Canon) Graphing & Conclusion Writing (Day 4)

Assessment

In-class completion of the notebook/bell work (f)
Completion of Graphing & Conclusion Writing (f)

Homework

1. Return with your lab 1-1 data and graphing handout – 8/27

2. Take grade sheet home – It must be signed by your guardian and returned – 8/27

3. If you have not done so, you still need to collect your materials for lab 3 – 1 / The roller coaster challenge

4. Your first notebook assessment is next week. If you have not completed all of your notebook assignments visit www.wegerscience.com – 8/29

Bell work

YouTube Science – Watch the video and respond to the questions below.

1. Explain innovation using examples from the video.
2. Can anyone be an inventor?
3. How is solving everyday problems, good practice for inventing and innovation?
4. What part of the confetti canon lab models innovation?

Have you ever encountered a problem and thought, "Why doesn't someone invent a way to fix this?" – What you experienced was an important step in the scientific method called an observation. **Provide an example.**

YouTube Video Link - Innovation

Linked Documents and Class Resource | *Teacher's NB 8/23* | *YouTube Science Video - Innovation* | *CC Lab 1-1 Handouts*

District Content Descriptor:

- Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

Fayette County 2016-17 District Content Map

Vocabulary 1-1 – Understanding Science

You are expected to familiarize yourself with these concept terms – you do not have to complete (*) terms as part of the bell work.

Vocabulary Term	***Definition***
*Conclusion**	***A summary based on experimental evidence.*** *A conclusion explains an observation, question, hypothesis, experimental design, experimental/graphic data and summary statement.*
Ethics	***The moral principles of behavior, and the careful consideration of an action.*** *Example: Scientific - Can we use DNA to make a dinosaur? – Ethical: Should we use DNA to make a dinosaur?*
*Experiment**	***A scientific procedure used to make a discovery, test a hypothesis, or demonstrate a known fact.***
Genius	***Very clever;***
*Hypothesis**	***A proposed explanation made on the basis of limited evidence.***
*Invention – Innovation**	*(Invention)* ***The creation of something new – a method, idea or product and*** *(innovation)* ***the continuation of that process over time.***
Observation	***To witness an event that is not fully understood*** *– Scientific method*
Question	***To request general/specific information about an observation*** *– Scientific method*
Reasoning	***The act of using what you know – to determine the meaning of what you do not know.***
Research	***To study, calculate and/or investigate as a means to form a conclusion.***
*Science**	***The process we use to understand the laws of a system.*** *Scientific method: Observation, question, hypothesis, experimentation, data collection, conclusion*
Technology	***The application of scientific knowledge for practical purposes, especially in industry.***

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