

Date: September 10, 2018

School Day: 016

Learning Objectives – “Students can...”

1. Analyze new concept vocabulary – Vocabulary Enhancement (BW)
2. Lab 2-1: Interpreting Data and Writing a Conclusion / Final Predictions Assignment

Assessment

In-class completion of the notebook/bell work
Writing a Conclusion / Final Predictions Assignment

Homework

1. Lab 2-1 Conclusion & Graph – 9/11
2. Complete bell work vocabulary (5 terms) – 9/12
3. Notebook Assessment 2-1: If you have missing work visit www.wegerscience.com and get caught up – 9/12

Reminders / DO NOT COPY

Collect box material for gravity coaster lab 3-1
Turn in \$15.00 lab supplies fee

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 9/10](#)

[IVT Conclusion Handout](#) ↓

[Vocabulary 2-1](#) ↓
@ Bottom

[IVT – Conclusion SAMPLE](#)

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)

Connections to Nature of Science

Scientific Knowledge is Based on Empirical Evidence

Science knowledge is based upon logical and conceptual connections between evidence and explanations (07-PS3-4)

Fayette County
2018-19
District Content Map

Week 5: September 10 - 14, 2018

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Date: September 11, 2018

School Day: 017

Learning Objectives – “Students can...”

1. Analyze and respond to our weekly Science Article: Fail, Fail Again (BW)
2. Introduction to Lab 3-1: Gravity Coasters / Potential & Kinetic Energy

Assessment

In-class completion of the notebook/bell work
Lab 3-1 observation handout

Homework

1. Complete the Lab 3-1 gravity observation – 9/13
2. Complete bell work vocabulary (5 terms) – 9/12
3. Notebook Assessment 2-1: If you have missing work visit www.wegerscience.com and get caught up – 9/12

Reminders / DO NOT COPY

Collect box material for gravity coaster lab 3-1
Turn in \$15.00 lab supplies fee

Bell work

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

1. **What was Thomas Edison’s response to having so many failures when he was attempting to make a NEW kind of battery?**
2. **How many experiments had Edison completed before finally getting his NEW battery to work?**
3. **Why is failure an important part of learning?**
4. **What have we done in this class to model this kind of learning?**

Linked Documents and Class Resource

[Teacher’s NB 9/11](#)

[Article: Fail, Fail, Fail Again](#)

[IVT Conclusion Handout](#) ↓

[IVT – Conclusion SAMPLE](#)

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)

Models can be used to represent systems and their interactions – such as inputs, processes, and outputs – and energy and matter flows within systems. (07-PS3-2) When two objects interact, each one exerts a force on the other that can cause energy to be transferred to or from the object. (07-PS3-2)

Fayette County
2018-19
District Content Map

Week 5: September 10 - 14, 2018

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Date: September 12, 2018

School Day: 018

Learning Objectives – “Students can...”

- 1. Use critical thinking to solve a problem. (BW)
- 2. Notebook Assessment 2-1 / Partner Review

Assessment

In-class completion of the notebook/bell work
Notebook Assessment 2-1 / Partner Review (S)

Homework

- 1. Complete the Lab 3-1 gravity observation – 9/13
- 2. Quiz 4-1: Labs & Notebook Concepts – 9/14

Reminders / DO NOT COPY

Collect box material for gravity coaster lab 3-1
Turn in \$15.00 lab supplies fee

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.**

Predicting Patterns – Observe the pattern below – **What are the next 3 letters in the pattern?**

J	F	M	A	M	J	J	A	S	?	?	?
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Linked Documents and Class Resource

[Teacher’s NB 9/12](#)

[NB Assessment Rubric](#)

[Lab 3-1: Gravity Obs. - SAMPLE](#)

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Connections to Nature of Science

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Fayette County

2018-19

District Content Map

Week 5: September 10 - 14, 2018

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Date: September 13, 2018

School Day: 019

Learning Objectives – “Students can...”

1. Analyze and respond to the YouTube - Q Review. (BW)
2. Lab 3-1: Gravity Data – Defining Potential & Kinetic Energy

Assessment

In-class completion of the notebook/bell work
Defining Potential & Kinetic Energy – Summary Conclusion

Homework

1. Complete Lab 3-1 / Defining Potential & Kinetic Energy – 9/17
2. Quiz 4-1: Labs & Notebook Concepts – 9/14

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Collect box material for gravity coaster lab 3-1
Turn in \$15.00 lab supplies fee

Bell work

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

1. **Where is this experiment being done?**
2. **What are they attempting to find out?**
3. **Make a prediction – Explain your hypothesis**
4. **Write a summary/conclusion – What happened and why?**



YouTube Video Link – Gravity & Objects in Fall

Linked Documents and Class Resource

[Teacher's NB 9/13](#)

[YouTube Science Video – Bowling Ball & Feather](#)

[Lab 3-1: Gravity Obs. - SAMPLE](#)

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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)

Models can be used to represent systems and their interactions – such as inputs, processes, and outputs – and energy and matter flows within systems. (07-PS3-2) When two objects interact, each one exerts a force on the other that can cause energy to be transferred to or from the object. (07-PS3-2)

Fayette County
2018-19
District Content Map

Week 5: September 10 - 14, 2018

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Date: September 14, 2018

School Day: 020

Learning Objectives – “Students can...”

1. Share ideas by writing a paragraph in their science journal. (BW)
2. Quiz 4-1: Labs & Notebook Concepts

Assessment

In-class completion of the notebook/bell work
Quiz 4-1: Labs & Notebook Concepts

Homework

1. Complete Lab 3-1 / Defining Potential & Kinetic Energy – 9/17
2. Cereal materials for gravity coasters are due in – 9/17

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Collect box material for gravity coaster lab 3-1
Turn in \$15.00 lab supplies fee

Bell work

Science Journal: Day 4

Complete a paragraph containing no less than five additional sentences that continue the lead below.

“I am half way through my first quarter of 7th grade...”

Linked Documents and Class Resource

[Teacher's NB 9/14](#)

Quiz 4-1*

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Fayette County

2018-19

District Content Map

Week 5: September 10 - 14, 2018

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Name: _____

Lab 2-1 Conclusion and Final Predictions

Complete each box with the missing information. Use your lab notes and notebook work to assist you.

Experimental Observation & Question:

The Infinite Variables Table has too many variables to predict outcomes with 100% accuracy – but is it possible to increase our odds to > 33.3%? (1:3 outcome probability for the Infinite Variables Table)

Hypothesis: Copy your original prediction from the lab notes handout – The one we already tested in class.

Attach your notebook graph to this page and identify the data below using your results.

What is the % probability of outcome 1?

What is the % probability of outcome 2?

What is the % probability of outcome 3?

*Final Prediction Based on Data – Using the data reported above create a final predicted series. Your prediction must match the probability data**

How many outcomes did you predict correctly?

Write a summary statement – Were you able to increase your probability to > 33.3% (YES/NO)

If YES, how were you able to accomplish this? If NO, what would you do to improve your results?

/ 10

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Vocabulary 2-1 – Scientific Methods

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
<i>Blunder</i>	<i>A mistake due to poor practice or false assumption – Careless work</i>
<i>Dependent Variable*</i>	<i>This is unknown and its results are unpredictable until there is a theory or law to govern the outcome</i>
<i>Hypothesis</i>	<i>A proposed explanation made on the basis of limited evidence</i>
<i>Independent Variable*</i>	<i>This variable is known as the control and can be changed at will</i>
<i>Pattern</i>	<i>A sequence that is predictable; familiar</i>
<i>Prediction</i>	<i>Using what is known to forecast what will occur next</i>
<i>Random – Event</i>	<i>A series of outcomes that are unrelated and unpredictable, even when they may appear to be so</i>
<i>Random Error</i>	<i>These often show up in data/result variation and are difficult to explain as their source is difficult to identify</i>
<i>Reasoning</i>	<i>The act of using what you know – to determine the meaning of what you do not know.</i>
<i>Scientific Law*</i>	<i>An explanation that is accepted by all – A law must answer every reasonable argument. Example: Law of Gravity</i>
<i>Scientific Theory</i>	<i>An explanation that has been verified through sound experimentation, but still needs further study</i>
<i>Systematic Error</i>	<i>Accounts for mistakes made due to identified variations in data and can be eliminated. Sample: Approximations, or instrumentation inaccuracy</i>
<i>Potential Energy*</i>	<i>The stored energy found in an object based on its shape, mass and position.</i>
<i>Kinetic Energy*</i>	<i>The movement of an object given its potential energy (acceleration, velocity & mass)</i>

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2. What are they attempting to find out?
3. Make a prediction – Explain your hypothesis
4. Write a summary/conclusion – What happened and why?

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