

Physics Unit 0

Science Competencies

Welcome to Physics!
Please choose a seat

Please check your schedule that the class hour,
teacher (Wentzloff) and Room (C9) is correct.

Physics Daily Slides: August 23, 2021

Agenda

1. Introductions
2. Classroom Procedures
3. What's Data?

Warm Up

❖ What are qualities that makes a good scientist?

Materials

- ☐ Notebook
- ☐ Pencil/Pen

Reminders

- ☐ Make sure you have a charged device by Thursday.

When you hear the word
"data" what do you think of?

Look at the three cylinders in the front of the classroom.

You cannot open or look inside.

Brainstorm all the ways you could take data to find out what's inside.

Physics Daily Slides: August 24, 2021

Agenda

1. Observation
Cylinders
2. Egg Observation
Activity
3. CER Intro

warm up

- ❖ How could you take data about the cylinders up front without looking inside?
- ❖ What other information would you want to know before taking data on the cylinders?

Materials

- ☐ Notebook
- ☐ Pencil/Pen

Reminders

- ☐ make sure you have a charged device by Monday.

Class Consensus Hour 1

- weigh them
- Shake Them
- Measure them (width, height)
- Count them
- Compare to control

Solid or liquid

what they're made of (cylinders)

Multiple/just one object

what objects are inside

- weight of the object
- Sound the objects make
- How they feel when they move around inside
- How many cylinders
- Volume of cylinder
- Compare to control

weight of cylinders by themselves

what are the cylinders made of

Fragile objects?

magnetic?

If the objects are the same in each one

- Measure the height and width
- Weigh them
- Shake them to see what's inside
- Temperature difference
- Circumference
- Compare to control

What type of cylinder so we can guess the volume

One object or multiple?

Scale to find what out weighs the most

Type of matter of objects (solid or liquid)

Let's Open them up!

What's in the egg?



- ✕ Buttons
- ✕ Pills
- ✕ Staples
- ✕ Erasers
- ✕ Sugar Packet
- ✕ Thumb Tacks
- ✕ Push Pins
- ✕ Word Magnet
- ✕ Paper Clips
- ✕ Beads

Claim, Evidence, Reasoning



Claim: Answer the question:
What is in the egg?

Evidence: Cold, hard observations, data and facts

Reasoning: Explain how your evidence supports the claim.

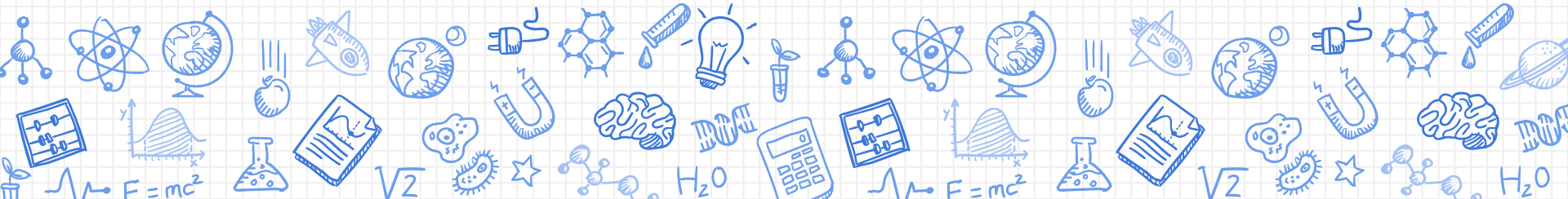
Open Up Your Egg

What were you right about?

What were you wrong about?

What would you need to know to be more accurate?

Write down your findings.



Physics Daily Slides: August 25, 2021

Agenda

1. Intro to SBC and Self Assessment
2. Egg Observations CERs Assess
3. Check Activity in Lab

warm up

- ❖ what do you think the difference is between peer, self and teacher assessment?
- ❖ How are they all similar?

Materials

- ☐ Notebook
- ☐ Pencil/Pen
- ☐ Chromebook/Device (Optional)

Reminders

- ☐ make sure you have a charged device by Monday.

The background of the slide is a light orange color with a dark teal border. The border is decorated with various line-art icons in orange and pink. These include chemistry glassware like flasks, beakers, and a test tube; a magnifying glass; a radiation symbol; a ruler; a protractor; a syringe; a hexagon; a molecular structure; a pill; and various geometric shapes like circles, squares, and stars. Some icons are accompanied by small plus signs or asterisks.

Standards Based Grading

Grading that works for me and you.
Grading that shows your progress.
Grading that works for the real world.

Traditional Grading

Student Name	HW K 1	HWK 2	Quiz 1	BGR 1	Test 1	AVG
Joe	100%	90%	70%	90%	50%	80% B
Lisa	75%	0%	100%	50%	90%	63%D
Frank	80%	50%	80%	60%	70%	68% D
Mary	35%	70%	70%	80%	85%	68% D

What do these grades tell you about what students **learned?**

Scale	Level of Mastery	Frequency of Correctness
0	No evidence	Never
0.5		
1	Novice	Rarely
1.5		
2	Developing	Some of the time
2.5		
3	Approaching Mastery	Most of the time
3.5		
4	Mastery	Almost all of the time



Detail	Date Due	Assigned	Assignment	Pts Possible	Score	Scored As	Extra Credit	Not Graded	Comment
	09/02/2020	09/02/2020	0.1 Rearranging Equations	4	3.6	3- Proficiency		✓	
	09/02/2020	09/02/2020	0.2 Algebraic Relationships	4	4	4- In depth mastery		✓	
	09/02/2020	09/02/2020	0.3 Conversions	4	4	4- In depth mastery		✓	
	09/02/2020	09/02/2020	0.4 Trigonometry	4	4	4- In depth mastery		✓	



Grades are
collaborative.
We work together.
Our conversations
MATTER.





Standards Based Grading Process

Pre Assessment

Where are you
when we start a
unit?

Self and Teacher
Assessment

Check In's

Where are you
now as you learn
and practice?

Self and Peer
Assessment

Summative

Where are you at
the end? **

Self and Teacher
Assessment



** Not always the end- Reassessments built in, on your own
or during the final





Why SBG?

Regular grading doesn't show us what we actually know. It doesn't give us a chance to redo, retry and learn more.



4- Mastery
am confident I
understand all
parts the concept.



3- Proficiency
I understand
most parts of
the concept, but
may make small
mistakes

2- Approaching
I understand
half of this
concept and
need to
learn/practice
more.

1- Beginning
I am not
confident in
this concept
but more
practice and
learning will
help. I tried!



Physics Daily Slides: August 26, 2021

Agenda

1. Check Activity in Lab
2. CER Check Activity

warm up

- ❖ If you have your device today, take it out.
- ❖ Please join the Google Classroom with the code on the board.
- ❖ Take out the check activity from yesterday.

Materials

- ☐ Notebook
- ☐ Pencil/Pen
- ☐ Chromebook/Device

Reminders

- ☐ Bring your device to class! You will need it Monday.

I-I Technology Expectations

- Bring your device charged daily.
- Do you take out your device until you are instructed to do so.
- We will start using it on Monday for the next two weeks.
- The majority of what we do will be turned in online.

Physics Daily Slides: August 31, 2021

Agenda

1. Syllabus and SBG Sheet
2. Check Activity CER
3. Self and Peer Assessment on CERs
4. Is It Science? CER Assessment

Warm Up

- ❖ Sit at the desk with your lab number. This is your seat for the next 2+ weeks.
- ❖ In your Notebook— Describe your first week of school. What did you enjoy? What class are you looking forward to? Is there a teacher you like? Why?

Materials

- ☐ Chromebook/Device
- ☐ Notebook

Reminders

- ☐ Check CERs due today on Google Classroom.
- ☐ Finish Remind and Survey
- ☐ Tardies start Tuesday, September 7th

COVID Protocols

- Stay 3 feet from other students
- wear mask over nose and mouth at all times
- If you are on quarantine, do not come back early!
- Ask to use the restroom and use the QR code or agenda
- If you are sick, please leave school or don't attend

Physics Daily Slides: September 1, 2021

Agenda

1. Self and Peer Assessment on CERs
2. Is It Science? CER Research Day

Warm Up

- ❖ Take out your Standard sheet/Calendar and CER Rubric
- ❖ Open up your device and load your Check CER (if you don't have a device yet look off of your partner).

Materials

- ☐ Chromebook/Device
- ☐ Notebook

Reminders

- ☐ Tardies start Tuesday, September 7th

Peer and Self Assessment

- Swap ONE computer with your partner group
- Read the other group and give them a score on all 3 standards and WHY
- Record on your standard sheet
- Self assess
- Say thanks to your partner!

Is It Science?

- Wednesday: Research
- Thursday: Research Done and one CER Complete
- Tuesday: Complete BOTH CERs, Self Assess and TURN IN BOTH CERs

Physics Daily Slides: September 2, 2021

Agenda

1. Is It Science? CER Research Day
2. Complete one CER for Is It Science?

Warm Up

- ❖ Open up your device and load your Research and sources sheet for Is It Science
- ❖ Answer this question in your notebook: what have you learned about your topic so far? Do you feel like you support this topic or not? why?

Materials

- ☐ Chromebook/Device
- ☐ Notebook
- ☐ Pencil

Reminders

- ☐ Is It Science CERs due Tuesday
- ☐ Tardies start Tuesday, September 7th

Is It Science? Thursday Goals

- Complete Research (8 Sources total)
- Complete 1 of the CERS- you will be finishing both on Tuesday

Physics Daily Slides: September 7, 2021

Agenda

1. Review CER Format
2. Complete both CER for Is It Science?

warm up

- ❖ Open up Is It Science Research & CER Templates
- ❖ IN your Notebook: After researching your topic, do you support or not support it? why?

Materials

- ☐ Notebook
- ☐ Pencil
- ☐ Chromebook/Device

Reminders

- ☐ Is It Science CERs due today on Google Classroom!

What do you have completed?

1. Less than half of my Research
2. Half or more of my Research
3. Research is done
4. Started or finished my first CER
5. Started or finished my second CER

Is It Science? Tuesday Goals

- Complete both CERS
 - IN Support
 - Not in Support
- Self Evaluation
- Turn It In!

Physics Daily Slides: September 8, 2021

Agenda

1. Review Unit 0
Schedule &
Standards
2. Graphing Basics
3. Graphing in
Google Sheets
Lesson and
Practice

Warm Up

in your Notebook
No Devices Right Now!

1. What do you need in
a data table?
2. What do you need in
a graph?
3. Have you ever
graphed in Google
Sheets?

Materials

- ☐ Notebook
- ☐ Pencil
- ☐ Chromebook/Device

Reminders

- ☐ CERS Past Due!
- ☐ Final Graphing
Summative due
Tuesday

Graphing Essentials

Data Table

- Titles
- Labels
- Results
- variables
- Constants
- Numbers
- Qualitative
- Independent and Dependent
- Rows and Columns
- Organization

Graphs

- Title
- Labels
- X and y axes
- Types of Graphs
- Points
- Graphing Paper
- Lines.. maybe
- variables
- Data
- Description
- Key
- Units
- Scale

Scatter Plots with Trendlines
Unless otherwise told!

Physics Daily Slides: September 9, 2021

Agenda

1. WRap Up Yesterday
2. GRaphing in Google Sheets Lesson
3. PRactice!

warm Up

1. Take out your graph paper from yesterday.
2. In a data table, the first column is what axis?
3. What does it mean to scale a graph?

Materials

- ☐ Chromebook/Device
- ☐ Graph Paper
- ☐ Pencil

Reminders

- ☐ Final Graphing Summative due Tuesday

Physics Daily Slides: September 10, 2021

Agenda

1. Partner Graphing Practice
2. Graphing Summative Class Data

Warm Up

1. Open up your Google Sheets Practice (the actual sheet) from yesterday and from the material posted yesterday "Practice"
2. Graph Data Set #1 and #2 on your sheet from yesterday

Materials

- ☐ Charged Device
- ☐ Notebook (later)

Reminders

- ☐ Final Graphing Summative due Tuesday

Physics Daily Slides: September 13, 2021

Agenda

1. Graphing Summative
Finish Data
2. Start Graphs

1st- 21

2nd- 20

3rd- 17

Warm Up

1. Open up your Data Table Sheet we worked on Friday.
2. Collect the remaining data from your class.

Materials

- ☐ Charged Device

Reminders

- ☐ Final Graphing Summative due Tuesday on GC

Physics Daily Slides: September 14, 2021

Agenda

1. HMB Tour
2. Quick Life Update
3. Reassessments
4. Graphing Summative

warm up

1. Open up your Data Table and Graphing Sheet on your Data Summative

Materials

- ☐ Charged Device

Reminders

- ☐ Final Graphing Summative due Tuesday on GC

Tuesday: Data Summative

- All 4 Scatterplots with Trendlines
 - Remember, the names are y vs. x
- Follow up questions on the final sheet— this is data analysis!