

Physics Unit 0 Daily Slides

Welcome to Physics

Mrs. Wentzloff

C9

Sit at your Pod according to your card.

Take out a notebook and pencil.

Don't have paper?

Check the student station on the right side of the room

Attendance

- ✗ Name
- ✗ Grade
- ✗ Something you are involved with at AHS or outside of AHS

**I don't care if you learn physics.
I care that you learn how to think
like scientist, gather information
and make conclusions.**

Observe the objects for 30 seconds.
We will go in two groups.

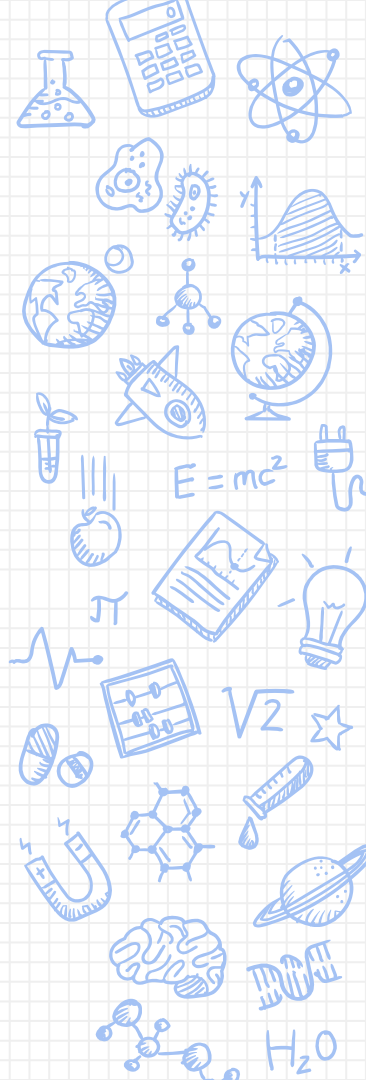


1. How many pieces of pasta?
2. What are all of the colors of the plane?
3. What is the brand of the golf ball?
4. How much money is in the box?
5. What side of the paint brush has more paint?

Observe the objects for 45 seconds.
You can write down as much as you want.
We will go in two groups.



1. What is the suit and number of each card?
2. Which is the heaviest rock?
3. How many pieces of spaghetti?
4. What is the code on the bottom of the bottle cap?
5. What color is the zip tie?



Physics Daily Agenda 9/4

Agenda

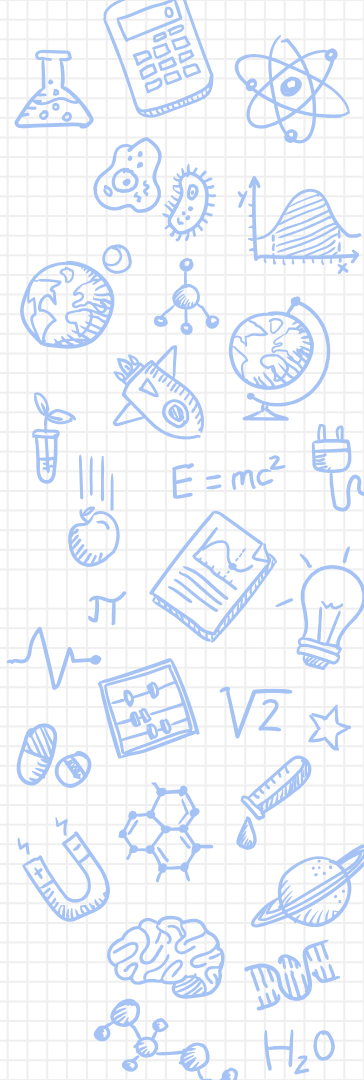
- 1) Attendance
- 2) Partners
- 3) Expectations
- 4) Procedures
- 5) Finish Box Activity
- 6) Reflection on Observation
- 7) Egg Activity

Do Now

- ✗ Sit at your pod from yesterday
- ✗ Take out your notebook/paper from yesterday

Standards

C.1
Scientific
Observation



Observe the objects for 30 seconds.
You can write and touch the objects.
We will go in several groups.



Now, you can work with your teams!
Organize your data so you can answer
questions together.



What is the common language?

-
1. What color is the monkey?
 2. What is the brand of bottle cap?
 3. What is the suit of each card?
 4. What is written in the middle of the poker chip?
 5. How many red rocks are in the tub?

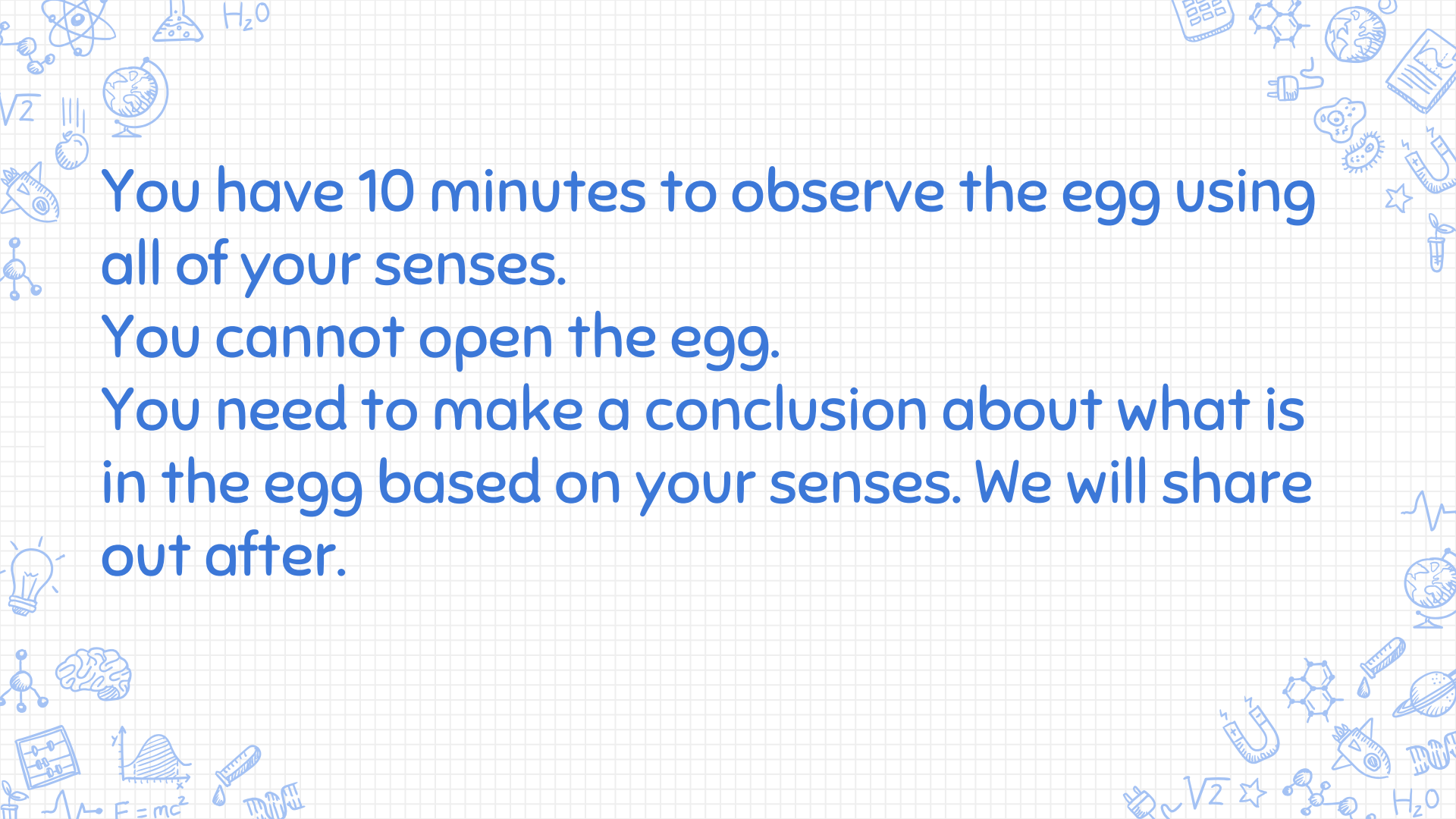
1. Blue
2. Pepsi
3. Spades, Diamonds
4. Bicycle
5. 1

What's in the egg?



You have an egg filled
with objects. What are
these objects?






You have 10 minutes to observe the egg using all of your senses.

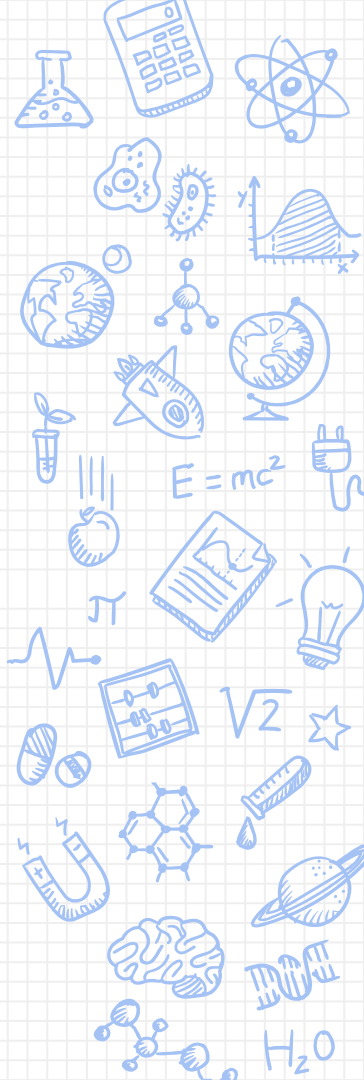
You cannot open the egg.

You need to make a conclusion about what is in the egg based on your senses. We will share out after.



Potential Objects

- ✗ Buttons
- ✗ Pills
- ✗ Staples
- ✗ Erasers
- ✗ Sugar Packet
- ✗ Thumb Tacks
- ✗ Word Magnet
- ✗ Paper Clips
- ✗ Beads



**Swap with another group.
Try to infer what is in the other egg.**

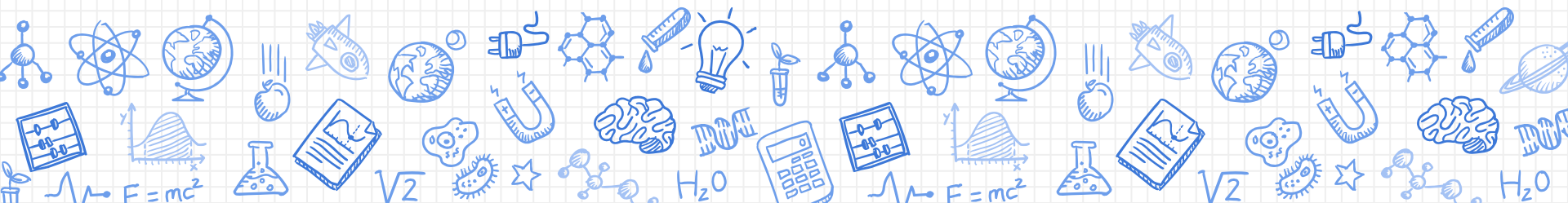
Open Up Your Egg

What were you right about?

What were you wrong about?

What would you need to know to be more accurate?

Write down your findings.



Scientists use all their senses and writing down observations to make conclusions. Sometimes they are wrong, but then we find better methods to get data.

Physics Daily Agenda 9/5

Agenda

- 1) Attendance
- 2) Finish Up Egg Activity
- 3) Observation Rubric
- 4) Check Activity

Do Now

- ✗ Sit at your seat from yesterday
- ✗ Take out your notebook

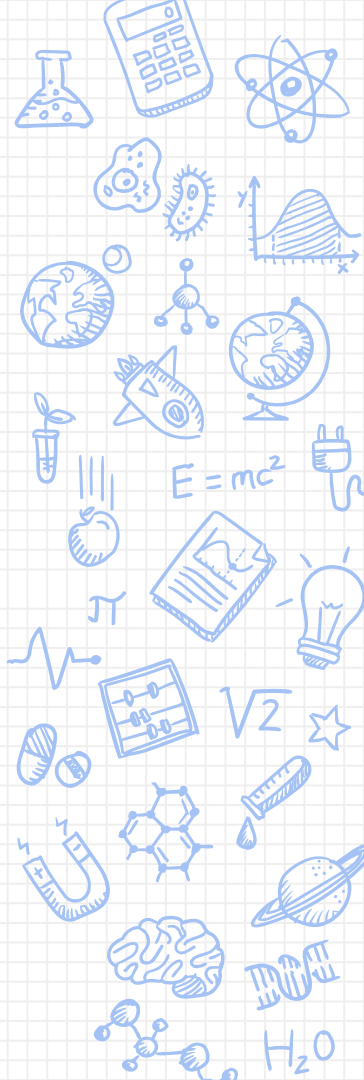
Standards

C.1
Scientific
Observation



Story

Evidence





What happened to Sam Science?

Take out one check only.
Based on this check make a
story about Sam Science.



Take out the remaining checks (total of 16).
Write your final story on a blank piece of
paper!



Share out



Why do we make different conclusions from the same data?



- 1) GC/Remind Codes
- 2) Index Cards
- 3) Check Activity

Finish + Share Out

- ✗ Sit with your partner from yesterday
- ✗ Get your agenda and phone

C.1
Scientific
Observation
C.3 CER

Class Hour	Remind Text 81010 or on the app	Google Classroom
1	@wentzphys1	4ti63x
3	@wentzphys3	8q9gwin
4	@wentzphys4	uwn5e5x
5	@wentzphys5	3c6t9os

Index Card Activity

FRONT

- ✗ Name (first and last)
- ✗ Nickname
- ✗ Grade
- ✗ Activities you're involved in at AHS and outside of AHS

BACK

- ✗ Career and/or college goals
- ✗ Favorite subject/teacher/class
- ✗ Why did you take this class? (be honest)
- ✗ Siblings or relatives at AHS (past or present)



Write your Final Story (on colored paper)

Story

Same Science had a mid life crisis so he bought a Ferrari.
After that he divorced his wife and hired the most expensive lawyer in town.

Evidence

Ferrari Check

Lawyer Check



Physics Daily Agenda 9/9

Agenda

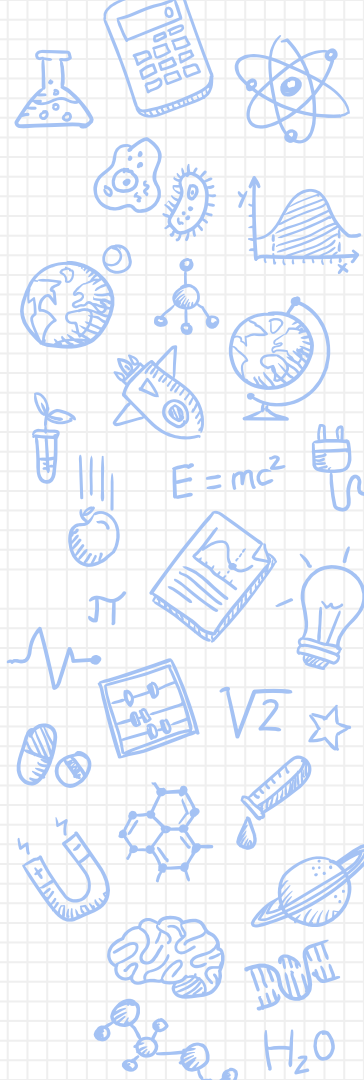
- 1) Syllabus
- 2) GC/Remind
Codes/Index
Cards- Absent
Students
- 3) Check Activity
Final Draft
- 4) Share Out
- 5) CER Intro

Do Now

- ✗ Sit with your partner from Friday
- ✗ Take Out Your Notebook
- ✗ Get a check envelope

Standards

C.1 Scientific
Observation
C.3 CER



Class Hour	Remind Text 81010 or on the app	Google Classroom
1	@wentzphys1	4ti63x
3	@wentzphys3	8q9gwin
4	@wentzphys4	uwn5e5x
5	@wentzphys5	3c6t9os

BACK

- ✗ Career and/or college goals
- ✗ Favorite subject/teacher/class
- ✗ Why did you take this class? (be honest)
- ✗ Siblings or relatives at AHS (past or present)

Evidence

Ferrari Check

Lawyer Check

Final Share Out

- Each group reads their story
- Record what is similar and different about your stories
- What are at least two pieces of evidence you interpreted the same?
- What are at least two pieces of evidence you interpreted differently?



Is it Science?

Intro to CERs



Physics Daily Agenda 9/10

Agenda

- 1) What is a CER?
- 2) CER Examples
- 3) CER Practice
- 4) Is it Science?

Do Now

- ✗ Sit with a partner
- ✗ Take Out Your Notebook

Standards

C.1 Scientific Observation
C.3 CER





#4: Argumentation (Claim, Evidence, Reasoning)

Rubric Criteria	4	3	2	1	0
<p><u>Claim:</u> <i>What Do You Know?</i></p> <p>A statement or conclusion that answers the original question/problem</p>	The claim is clear and specific while relating to the question presented in class	The claim is clear but does not relate to the question presented in class	The claim is unclear; does not relate to the question presented in class	Does not make a claim or makes an inaccurate claim or claim is not related to the question presented in class	No claim
<p><u>Evidence:</u> <i>How Do You Know That?</i></p> <p>Scientific data from the lab that supports the claim. The data needs to be appropriate and sufficient to support the claim</p>	<p>The evidence is detailed and persuasive</p> <p>Includes: all necessary qualitative data and/or quantitative data that supports the claim</p>	<p>Evidence may be missing a few details but is still persuasive.</p> <p>Missing some necessary qualitative and/or quantitative data that supports the claim</p>	<p>Provides related but insufficient evidence to support the claim.</p> <p>May include some unrelated evidence that does not support the claim.</p> <p>Includes some reasoning instead of evidence.</p>	<p>Only provides unrelated evidence (Evidence that does not support the claim)</p> <p>OR only provides reasoning and no evidence from data</p>	No evidence provided
<p><u>Reasoning:</u> <i>Why Does Your Evidence Support Your Claim?</i></p> <p>A justification that connects the evidence to the claim. It shows why or how the data counts as evidence by using appropriate and sufficient scientific principles</p>	<p>Explanations and organization of reasoning strongly enhance the communication of evidence.</p> <p>The reasoning is based on clear and sound scientific principles. Fully explains <u>why or how</u> the data supports the claim</p> <p>The reasoning is from a reputable source if sources were used</p>	<p>Provides accurate and complete reasoning that links evidence to claim.</p> <p>The reasoning is sound but may not elaborate on evidence adequately - explains <u>why or how</u> data supports the claim but fails to demonstrate a complete understanding</p> <p>The reasoning is from a reliable source if sources were used</p>	<p>Provides reasoning that links claim and evidence. Repeats the evidence.</p> <p>The reasoning is sound but may not elaborate on evidence adequately - starting to explain <u>why or how</u> the data supports the claim</p> <p>is from a questionable source if sources were used</p>	<p>Only provides reasoning that does not link evidence to claim</p> <p>Does not explain <u>why or how</u> the data supports the claim</p> <p>The reasoning is not from a reliable source if sources were used</p>	Does not provide reasoning



Practice CER

Claim: Red jellybeans are the best.



Agenda

- 1) Wrap Up CER Practice
- 2) Is it Science? Partners
- 3) Is It Science? Directions
- 4) Is It Science? Work Time

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- 1) Wrap Up CER Practice
 - 2) Is it Science? Partners
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- ✕ Take Out Your Notebook

- # Do Now
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 - ✕ Take Out Your Notebook

Standards

C.1 Scientific
Observation

C.3 CER

Standards

C.1 Scientific
Observation

C.3 CER

Teacher Directions

- 1) Split groups up into random pairs of students. Make sure to split up students are diversely as possible. (15 total)
- 2) Students are randomly given a topic.
- 3) Students write down everything they know about a topic on white boards. Students DO NOT write their opinion
- 4) Students watch/read all 5-6 sources about the topic and use the sheet to break them all down- will be attached (Perspective Sheet)
- 5) Day 2- Students create 2 CER posters- one for pro and one for against using sources. Gallery walk or share out at end.
- 6) Reflection- What can evidence tell us? Is all evidence good? How does evidence shape our opinion.

Is it Science?

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Is It Science- Student Steps

1. Get partner
2. Choose topic (random)
3. Write down everything you know on sheet
4. Work on gathering your evidence from your sources on Is It Science Sheet? **Focus on bias.**