WELCOME TO SCIENCE

ROOM 501

MRS. SMITH

OBJECTIVE: To introduce you to science class, our rules & procedures, and each other

Please log into Google and click on Google Classroom!

******SIGN UP:

Enter these Google Classroom Codes

Period 1:

Period 2:

Period 4:

Period 7:

Period 8:

STATIONS - ONE PER DAY (SEE DATES)

Station 1
Thurs. Sept. 9
What is Science?
Demos & Discussion

Station 2
Fri. Sept. 10
Welcome Letter,
Supply List, & Class

Station 3
Tues. Sept. 14
"About Me" Activity - Lab Coat

Station 4
Wed. Sept. 15
SpongeBob Lab Safety Activity
*Reminder to have supplies for STEM Name Tag Challenge

Station 5
Thurs. Sept. 16
Science Binder and Composition Notebook Organization

Station 6
Fri. Sept. 17
Name Tag STEM Challenge

Station 7
Mon. Sept. 20
Meet the Teacher - Intro to CER!

Science and Engineering Practices Stations
Tues. Sept. 21 - Thurs. Sept. 23

STATION 1: WHAT IS SCIENCE?

- Class discussion: What do you think SCIENCE is?
- Observe the demonstrations and then answer the following questions:

PENDULUM

DISAPPEARING WATER

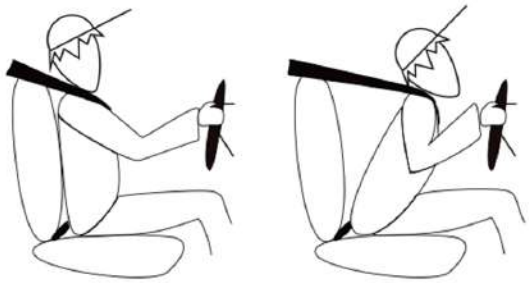
What is one thing you notice?

What is one thing you wonder?

Phenomena

Phenomena are events in science that can be observed.

A phenomenon leads us to wonder and ask questions.



Why do I fly forward when I slam on my brakes?

Why is it summer in Australia when it is winter in America?

Why do rainbows form when it's sunny and raining?

Can you think of any other examples?

Learning Science:

- Starts with a phenomenon
- Involves asking questions
- Experimenting & Tinkering
- Looking and analyzing data
- Drawing pictures/models
- Arguing with evidence
- Working together
- Designing solutions
- Revising and try over & over again!

The Sandlot - Catapult Scene

Examples of engineering!

STATION 2: WELCOME LETTER, SUPPLY LIST, & CLASS RULES

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Welcome Letter & Supply List

HW - Complete Google Form

STATION 3: "ABOUT ME" LAB COAT ACTIVITY

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Station 7

Directions:

You will be given a picture of a lab coat (click on the image below). To earn credit, you must complete the following:

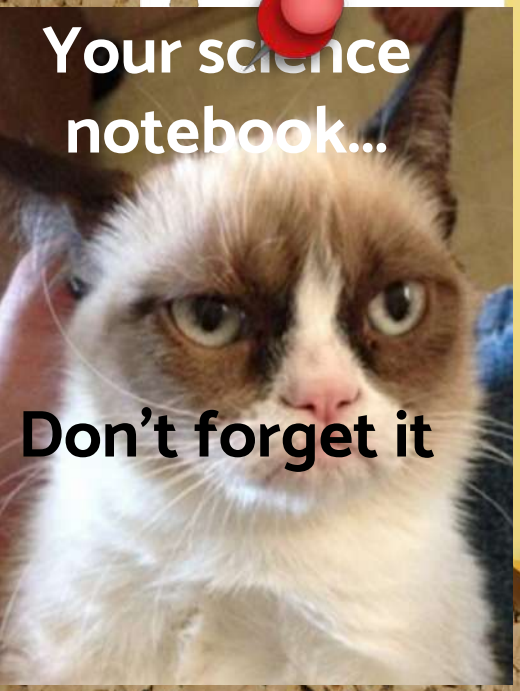
1. On the left side of the lab coat, draw and label at least 3 images about yourself (hobbies, interested, talents, etc.)
2. On the right side, draw and label at least 3 images of topics you are interested in for science class.
3. Attach or draw and color a picture of yourself on the pocket.
4. Color all pictures
5. Turn it in when complete!

STATION 4: SPONGEBOB LAB SAFETY ACTIVITY

Follow along to learn the ins and out of science lab safety!

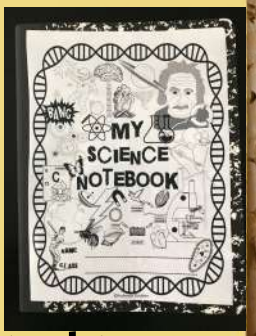
Click the image to begin!

STATION 5: SCIENCE BINDER AND COMPOSITION NOTEBOOK ORGANIZATION



Step 1: Use a folder or section divider to create a Science section in your binder. Here we/you will organize all of your handouts. Label it "Science".

Step 2: Add the Table of Contents, Unit page, Warm Ups page, and Vocabulary page to the science section of your binder in THIS order.



Step 3: Color the "My Science Notebook" cover page, cut it out, and glue it to the cover of your composition notebook.

Step 4: Call me over when completed to check your work!

STATION 6: NAME TAG STEM CHALLENGE

NAME TAG DESIGN CHALLENGE

STEM

Not only are you going to be learning a lot about science this year, but you'll also be dabbling in some engineering, too! **Engineering** is the design of something to solve a problem using science. Since we will be working together to solve problems, it is important that we get to know each other's names and interests. So, here is your challenge:

TASK – Can you design and build a name tag that follows specific criteria (rules) so that we can get to know one another better?

STATION 7: MEET THE TEACHER: AN INTRO TO CLAIM/EVIDENCE/REASONING (CER)

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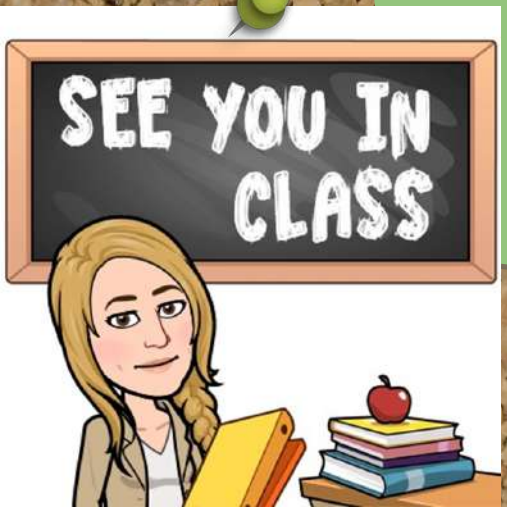
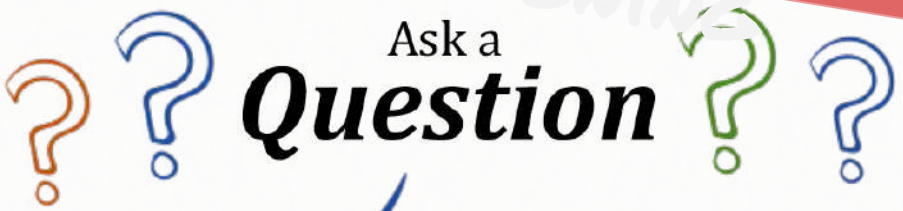
WHAT DO YOU KNOW ABOUT MRS. SMITH BASED ON WHAT'S INSIDE OF HER SCHOOL BAG? MAKE A LIST OF ITEMS AND WHAT YOU THINK THEY MEAN ON THE STICKY NOTE BELOW!



Claim, Evidence, & Reasoning



Ask a
Question

Claim
State an answer to the question.

Ex: She has children.

Evidence
Find reliable information that supports the claim.

Ex: She has a package of baby wipes in her bag. (This is what you see/measure/hear, etc.)

Reasoning
Link the claim to the evidence by explaining how the evidence supports the claim.

Ex: Children sometimes get messy so she has a package of baby wipes in her bag to wipe them.

Claim, Evidence, + Reasoning -

It's how scientists explain something (phenomena) Now write your own that answers the question: What do you know about Mrs. Smith? Here's a copy of CER Notes!

Write your CLAIM here:

Write your CLAIM here:

Write your CLAIM here:

Now it's time to meet the teacher!

Insert: Meet the Teacher Slideshow link here!

SCIENCE & ENGINEERING PRACTICES ACTIVITY

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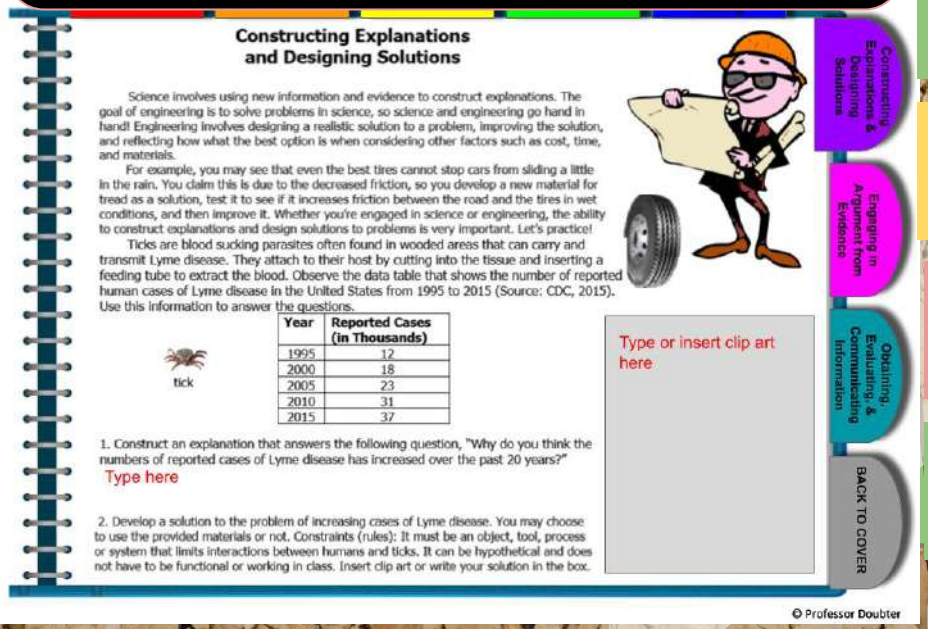
PDF Stations

Digital Interactive Notebook



Constructing Explanations and Designing Solutions

Science involves using new information and evidence to construct explanations. The goal of engineering is to solve problems in science, so science and engineering go hand in hand! Engineering involves designing a realistic solution to a problem, improving the solution, and reflecting how what the best option is when considering other factors such as cost, time, and materials.

For example, you may see that even the best tires cannot stop cars from sliding a little in the rain. You claim this is due to the decreased friction, so you develop a new material for tread as a solution, test it to see if it increases friction between the road and the tires in wet conditions, and then improve it. Whether you're engaged in science or engineering, the ability to construct explanations and design solutions to problems is very important. Let's practice!

Ticks are blood sucking parasites often found in wooded areas that can carry and transmit Lyme disease. They attach to their host by cutting into the tissue and inserting a feeding tube to extract the blood. Observe the data table that shows the number of reported human cases of Lyme disease in the United States from 1995 to 2015 (Source: CDC, 2015). Use this information to answer the questions.

tick

Year	Reported Cases (in Thousands)
1995	12
2000	18
2005	23
2010	31
2015	37

1. Construct an explanation that answers the following question, "Why do you think the numbers of reported cases of Lyme disease has increased over the past 20 years?"
Type here

2. Develop a solution to the problem of increasing cases of Lyme disease. You may choose to use the provided materials or not. Constraints (rules): It must be an object, tool, process or system that limits interactions between humans and ticks. It can be hypothetical and does not have to be functional or working in class. Insert clip art or write your solution in the box.

Type or insert clip art here

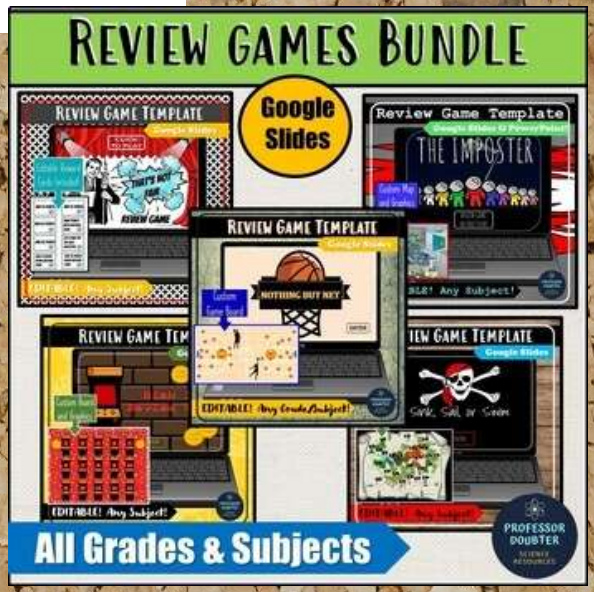
Constructing Explanations & Designing Solutions

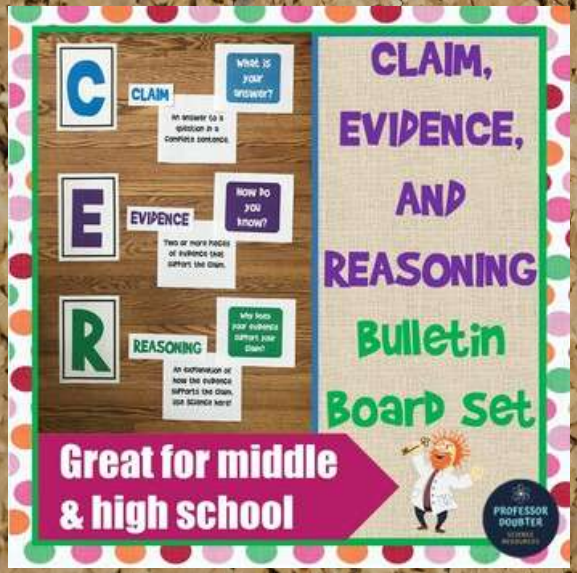
Engaging in Argument from Evidence

Obtaining, Evaluating, & Communicating Information

BACK TO COVER

Check out these other resources from my store! They are all clickable!





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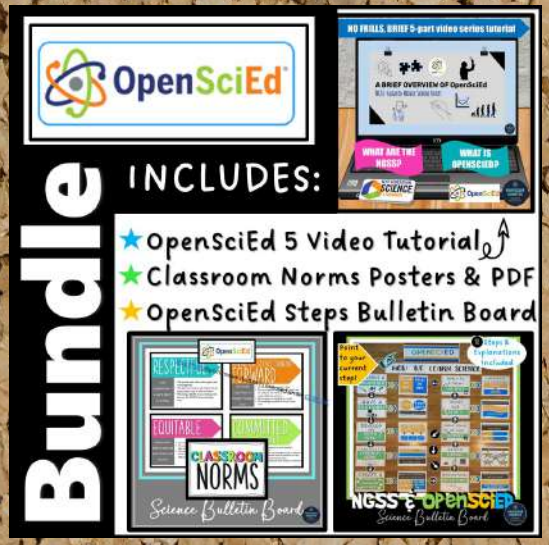

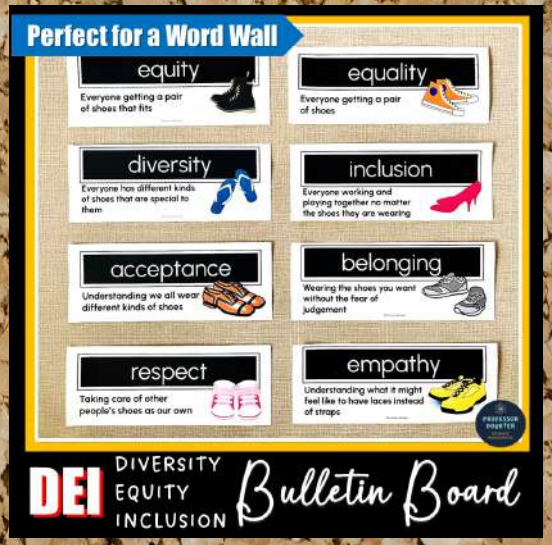

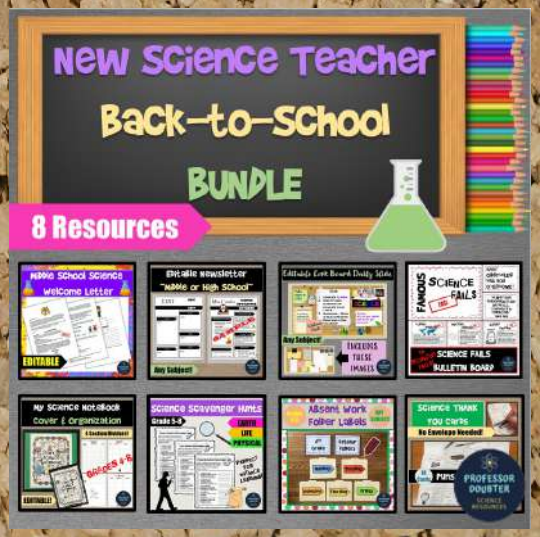

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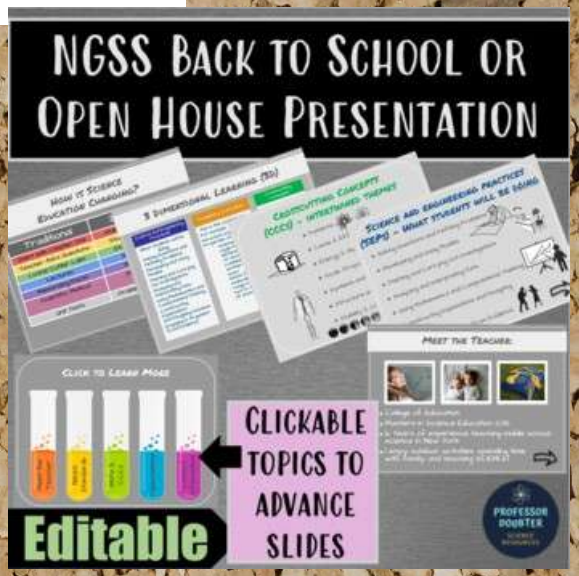

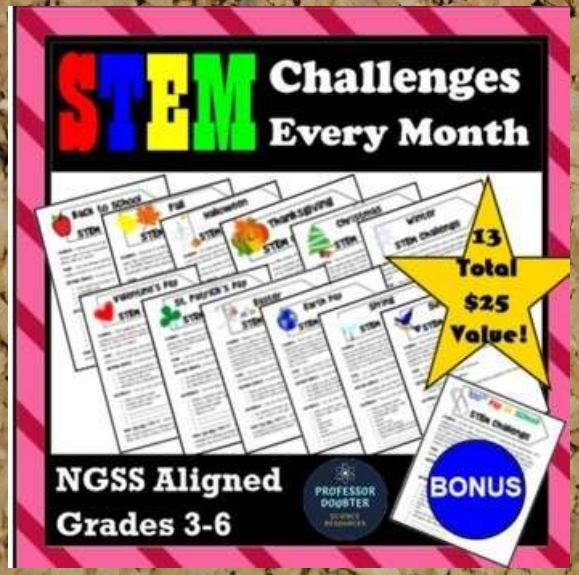

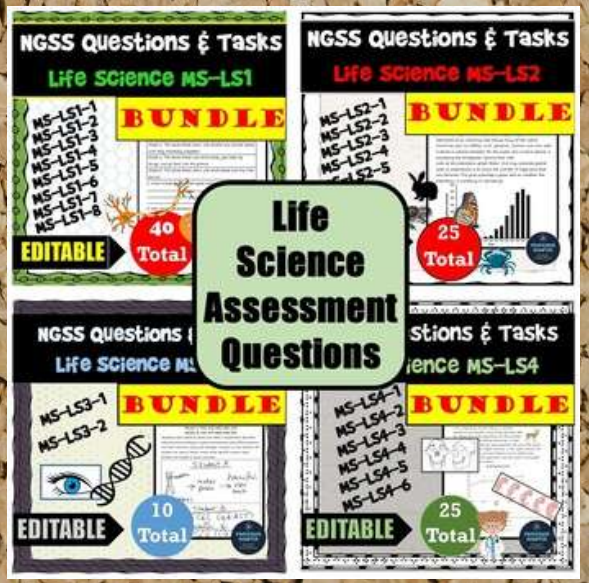

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PROFESSOR DOUBTER

SCIENCE RESOURCES

Thank you!

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