35th Satellite and Educators Conference

A Challenge For Teachers!
Be the BEST for Our
Students!

Saturday, July 30, 2022

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Recap from Sessions Yesterday

- Europa Clipper to be launched October 2024, Going to Europa to look for life
 - How can this information be used across disciplines
 - Life science Looking for traces of life Water means ability to sustain life?
 - Chemistry What kind of minerals are in the rocks and how does this affect the possibility of life
 - Physics Using gravity to help Europa Clipper on its way; Orbital mechanics
 - Geology What is the terrain like? What about the mountains? Oceans?
- Creating an artificial intelligence forecasting model to analyze the parameters of exoplanets and rate them according to ideal habitability conditions for life to exist.
- CubeSATs, A₃Sat and other methods to gather information
 - Readily available data from satellites
- Less formulas and equations; substituting 3D models to help understand mathematical concepts
- Projects that students could engage in where they must collaborate and work in teams.
 - NASA DEVELOP
 - NASA TechRise Student Challenge
- Finding your passion in what you do.

- Organize for success
 - Lots of information. What do you do with it all?
 - Are you ready for your first day? How do you know? How will your students know?
 - No flying by the seat of your pants It will be obvious!
 - Start with an activity that is stimulating.
 - Use Engage, Explore and Explain today
 - Save the Elaborate and Evaluate for later
 - Example: Observation important for all disciplines; Communication orally and written
 - Slowly pull students back in and go through your first day procedures.
 - Will you set up lab journals? How? Why?
 - I like to start my regular class with a quick write and/or a quick video.
 - * You tube https://www.youtube.com/watch?v=yl7mcj-Wu9k Life on Jupiter's Moon 2:14
 - You tube https://www.youtube.com/watch?v=IL9n3Our4ys Is There Alien Life on Jupiter's Moon Europa 4:43

Using an Interactive Lab Journal



"I WAS SUCH A GOOD STUDENT THAT I SKIPPED A YEAR IN MEDICAL SCHOOL-BUT THAT'S WAY I NEVER LEARNED ABOUT KIDNEYS."

CartoonStock.com

Principles of Biomedical Laboratory Journal



I WAS OWN A COST STUDENT BUT I SUSPED A FEW M MEDICAL SWOOL-BUT SWATS WAT I ABOUT LEADINGS AROUST KNOWN'S

CartonaStrickman

Teacher: Dr. Shannon

Value	Expectations
It keeps you organized. It helps you express your creativity. It helps you express your creativity. It allows your parents to see what you are doing in class. It helps you prepare for success on tests and quizzes. Colleges use it to determine what you accomplished and how to place you.	If lest, replace it immediately. You must keep it up to date. Bring it to class everyday. You must be present for notebook checks in order to receive full credit. DO YOUR OWN WORK! Manage your own behavior and not be disruptive or disrespectful.

Student's Signature

What Goes In Your Laboratory Journal

Your Laboratory Journal is the place where you will write your notes and ideas from class content. Here you will document experimental design and data from your labs and reflect on observations you make or information you gain during the class activities, projects and problems. The majority of your drawings will be done here first, annotated and then submitted via google drive.

During the course, the curriculum will reference places where you are to write in your Laboratory Journal. Make sure you do this!

You should work on your journal ANY chance you get during class.

Every page must have the following information:

YOUR NAME in the upper right-hand corner
DATE in the upper right-hand corner beneath your name
TITLE in the center on the top line
Page Number on the bottom outside corner
SIGNATURE of your Partner on the bottom in the inside corner

Dr. Barbara Shannon August 18, 2021

Activity 1.1.1 - A Sketchy Scene

Partner's Signature Page 1

Name			

GRADE SHEET

This grade sheet is very important. It will help you keep up with where you are in the class at all times. You are to write down every assignment given, the date it is due, the date you turned it in, the total possible points and the points you receive. The last column is for you to write comments. Examples include, I found this assignment difficult, I did not understand, This assignment was pretty easy, etc.

Name of Assignment	Date Due	Turned in	Possible Points	Points Received	Comments

Page	Title	Date
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_		
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Table of Contents for Lab Journal

This is the most difficult part for students.

Why do think this would be so?

- What do you bring to the table?
 - Hard work interesting lessons
 - The Teacher as Warm Demander Educational Leadership, September 2008, Volume 66,
 Number 1, Positive Classroom, pages 54-58 by Elizabeth Bondy and Dorene D. Ross
 - The Warm Demander: An Equity Approach Edutopia. April 13, 2016 by Matt Alexander
- What do your students bring to the table?
 - Themselves and everything else that happens in their lives
 - A feeling they can do nothing right or nothing at all
- How does this all fit?
 - Growth mindset okay to fail! (safe space)

- Design your lessons with the end in mind.
 - NGSS begins with what the students should know by the time they complete a section
 - Plan this way. It will save you time and frustration
- Keep teacher run class time to a minimum
 - More student voice use activities and projects
 - Allow choice of way students present their information
- Look for every opportunity to bring in new ideas, yours and theirs.
 - Conferences, Newspaper article, magazines, news report (Radio or TV), NASA channel
 - Science News for High School students; Current science
- Be flexible
 - Okay so there is a fire drill you forgot about!

- It's okay not to have all of the answers
 - Find the answer together
 - Assign the finding of the answer to different groups
 - Ask for volunteers
- Don't let standardized assessments get the best of you!
 - Yes you CAN teach literacy with science and math!
- Have FUN!!
 - It is amazing how good you feel after a day of having fun. Those 200 lab notebooks don't look so bad after all.

Thank you! Question?

You've Got This!

- Teach Like a Champion: 49 Techniques That Put Students on a Path to College by Doug Lemov
- Never Work Harder Than Your Students & Other Principles of Great Teaching – by Robyn R. Jackson