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Elementary Science & Engineering Teaching Methods

David Crismond
CUNY City College

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The CCNY School of Education prepares knowledgeable, reflective, and caring educators and leaders in diverse communities.

Syllabus

EDCE 42000: Elementary Science & Engineering Teaching Methods

Instructor: David Crismond, Ed.D.

Course # 12922 Section: Online

Email: dcrismond@ccny.cuny.edu

Phone: 917-561-9001(cell)

Class Meetings: Tues, Thurs 5 PM-8:20 PM online; Wednesdays asynchronous

Prerequisites: Dept Permission Required

Office Hours: By appointment

Field Work: 15 hours

Co-requisites: None

Place of EDCE 42000 in the Program in Childhood Education: A required 3-credit course

Course Description

From the Undergraduate Bulletin: “An elementary science and engineering teaching methods course, where students develop skills and knowledge about science and engineering teaching and learning. Candidates learn by doing inquiry and design activities that are hands-on and computer-based, and aligned with city, state and national science standards. Students learn to use research-based teaching strategies and assessment techniques that provide evidence of student learning for subsequent analysis and reflection. Fifteen (15) hours of fieldwork are required for this course.”

Elementary Science & Engineering Teaching Methods is a 3-credit, month-long summer session methods course for teaching science and engineering to children, grades 1-6. In this class, you will develop first-hand knowledge about: (1) **core ideas** and **cross-cutting concepts** in science and engineering found in the state and national standards; (2) **practices** related to scientific inquiry, engineering design and computational thinking; (3) **ways of teaching (pedagogy)** and **planning of lessons** using appropriate instructional strategies and current educational technologies; and (4) **assessment techniques** that help you monitor student progress and adjust instruction.

This course is being taught as an online course. Each Tuesday and Thursday, we hold our meetings from 5 PM to 8:20 PM synchronously via Zoom. On Wednesdays, work for the asynchronous session on that day will be posted along with assignments and due dates.

EDCE 42000 has a 15-hour online fieldwork requirement, a midterm exam, and culminates with a Final Project, where you will work either solo or with a partner in planning a 2-lesson sequence based on published curriculum. You are asked to recruit and teach two or more grade 1-6 learners, who must be able to attend both lessons that you teach. You should **begin recruiting your learners now**, or find a partner with whom you can schedule and share teaching responsibilities and who has access to such learners. Note that you will need to record and submit a 5-10 minute unedited video clip of your solo teaching as part of your Final Project Report.

Course Objectives

In this course, you will:

- Do hands-on scientific investigations to learn and understanding of how the world of nature works;
- Do engineering design activities where you use science concepts to solve problems of the “built world;”
- Learn strategies that will help elementary students do inquiry, design, and computational thinking well;
- Learn concepts and practices of science in-depth in the domain related to your Final Project; and,
- Link this work to the *Next Generation Science Standards* and *NYC’s PK-8 Science Scope & Sequence 2018*.

Working Themes of the School of Education's CONCEPTUAL FRAMEWORK

A. Developing In-depth Knowledge About the World — Learning and applying the Standards-based science concepts related to the inquiry- and design-based curricula through readings, hands-on investigations, discussions and teaching tasks, will help you build in-depth knowledge about the world in your teaching.

B. Becoming Skillful, Reflective Practitioners — Reflecting on the effectiveness of your teaching as you develop lessons plans and use them with real learners, analyzing and critiquing teaching videos, and assessing student learning will help you build your teaching skills while becoming an in-depth reflective practitioner.

C. Educating For and About Diversity — Examining how teachers from different countries and cultures teach the same topics will expand your ideas of how to reach diverse collections of learners. Highlighting contributions to science and engineering of people from wide range of cultures, and reviewing student work for evidence of different learning styles, needs, and multiple intelligences, will help build your ideas about how diversity can be used as a resource in teaching science.

D. Nurturing Leadership for Learning — Students will share ideas, lead small group discussions and work collaboratively in teams as preparation to assuming leadership positions in the school and community.

E. Building Caring Communities — Participating in community-building exercises, conducting yourself with “gracious professionalism” (Flowers, 2007) and the dispositions expected of a professional educator that include: believing that everyone can learn, valuing diversity and equity, upholding professional and ethical standards, and acting in an honest and caring manner with all.

Course Details

Class Participation

As a responsible member of a learning community, you are asked to (a) attend each class meeting during the scheduled time; (b) arrive on time; and (c) remain for the entire class session. For online classes, keep your camera turned on. Please **turn off** cell phones at the start of class. *This includes not reading and not responding to text messages during class.* If you have a real need to receive a call during class, let me know ahead of time.

Safety during Covid

Please follow all health protocols set up by the college during this time of COVID, including current policies for vaccination and wearing face masks, so that everyone in our community is as safe as possible. Click on the link [here](#) for the university's policies on gaining campus access and quarantine and isolation procedures. Use this link to keep up to date with current guidelines: <https://www.cuny.cuny.edu/return-campus>.

Instructional Methods

- Small-group and whole-class discussions
- Instructor presentations and project coaching
- Written reflections on course materials via online discussion and STEM Notebook writing
- Use of hands-on activities, including science experiments and design challenges
- Narrative writing based on observations of student learning and teaching; and,
- Use of simulations, educational software and technologies that enhance teaching and learning.

Educational Technologies

Use of educational technologies is critical for an online course. These include using Blackboard to retrieve PDF files and other course materials, and take part in text-based discussions. We will use Zoom for any synchronous course meetings. You will need a Gmail account and Drive to share files and work done in class.

Instructional Materials

Readings for this course will be posted on Blackboard, making this a Zero Textbook Cost (ZTC) course. Access to the NSF-funded VISTA teacher professional development materials, hosted by BSCS, will also be made available.

Assessments & Grades

Your grade for this course will be based on the following areas of work and performance:

Community and Collaboration – 20% of course grade

Most of this course will involve face-to-face class meetings – taking part in discussions is critical to this work. You are responsible to be a supportive and contributing member of our learning community. Completing assignments before class is essential, as is taking part in in-person and on-line discussions. Points will be lost for behaviors that detract from a productive learning culture.

Discussion Leader Notes, STEM Notebook Entries and Forums – 25% of course grade

You will post homework entries and assignments to your STEM Notebook in Blackboard. Entries should be typed into the field provided unless otherwise noted in the assignment instructions. Due dates will be found in the Course Schedule, but are typically the day prior to our class meeting. Assignments include:

- *Discussion Leader Notes & Reflections* - Most course readings will be given in packets of 3, and will be the topic of discussion in small groups of 3, where each person is expected to read all 3 articles, and will be responsible for *leading* a 5+ minute small-group discussion on 1 of those 3 articles. Each Leader will post to STEM Notebook and share with other members “Leader Notes” that will include: (a) a summary of the main points of the reading, (b) two discussion questions, (c) a favorite quote as a discussion kick-off, and (d) one connection between that reading and the ongoing work in the course. Leader Notes are due the day before the class meeting. (e) A follow-up Reflection of what went well and what could be improved during the discussion is due on the following Sunday after the completion of the discussion.
- *Summary of Readings* – Occasionally, you will write a 200-word (or more) entry where you describe in your own words key ideas from readings you do or videos you watch. You might also tell how you see yourself applying ideas you learned to your future teaching.
- *Forums* – In Bb, you will post original threads on assigned topics and provide meaningful replies others.

Presentations – 10% of course grade

You will be giving a presentation on a Learning Theory of your choice during the middle of the semester, and producing a 1 Pager on that theory for distribution to the rest of the class. During the last meeting of class (Aug 2), you (and your partner if you have one) will give a 6-8 minute presentation (5%) on your Final Project work

Milestone Papers – 10% of course grade

In the middle of the course, you will submit 4 milestone papers – early draft versions of 4 different sections of your FPR. You will receive instructor feedback on them to help you teach and prepare your Final Project Report.

Final Project Report and Presentation – 30% of course grade

For your Final Project, you will select a piece of published (not just found on the web) inquiry- or design-based elementary science curricula that can be found in the “Curricula” folder on Bb, and create 2 linked lessons based on them for use with two or more elementary-grade students whom you must recruit. You will teach these 45-minute lessons online on different days, with all team members present and the same two or more learners in attendance for all lessons. Your Final Project Report (25%) will be submitted to your STEM Notebook as a single PDF document. Share your one uninterrupted and unedited video recording of a 5-10 minute SOLO teaching segment with these learners for review by your instructor using your Google Drive and using the instructor’s Gmail account: davidcrismond@gmail.com.

Field Work – 10% of course grade

This course requires you to do 15 hours of field work. Three of those hours will be based on the teaching you do for your Final Project. The remaining 12 hours will be based on classroom teaching videos that you will watch, summarize and critique. At the end of the term, you will upload to your STEM Notebook a completed fieldwork timesheet for the instructor to sign and return to you for submission to the Office of Clinical Practice.

Grading Scale

Grades for this course will be based on the above work using a 100-point system:

Community & Collaboration	20 points
STEM Notebook, Forums, and Leader Notes	25 points
Presentations.....	10 points
Milestone Papers	10 points
Final Project Report & Presentation.....	25 points
Field Work	<u>10 points</u>
	100 points

Letter grades will reflect work done for 42000, and will be based on these score ranges:

A+	97-100	A	93-96.9	A-	90-92.9	
B+	87-89.9	B	83-86.9	B-	80-82.9	
C+	77-79.9	C	73-76.9	C-	70-72.9	F Zero (0) - 69.9

Course Policies

Attendance and Lateness

You need to arrive at synchronous online class sessions *on time*. Attendance will be recorded at the start of class, and with online sessions, periodically throughout the lesson. When meeting synchronously and using Zoom, your video camera must be turned on at all times. Students with cameras off, or arriving late, will get a reduced attendance and participation score.

Attendance for asynchronous online sessions will be based on the work you are asked to do and that you submit by the deadline. Not submitting work or turning it in late for asynchronous sessions will count as an absence.

Those who are absent for more than the equivalent of two classes, are at risk of not passing this course.

CCNY's published policy sets an upper limit of **two absences per semester**, after which a student cannot pass any CCNY course. NOTE that in this course, *no distinction is made between an excused or unexcused absence*.

Using Your Citymail Account

You are required to communicate using your official Citymail address for sending and receiving official course notices, or requesting help or email assignments when Blackboard is down. Check it regularly.

Submitting Work to Blackboard

Assignments should be completed on time. Due dates for assignments will be posted on Blackboard in the Course Schedule. This Schedule may get adjusted periodically – please check Bb for updates. Submit text and electronic copies (PDF) of assignments via Blackboard, except for your Final Project video, which may be shared with the instructor via Google Drive or Dropbox. Look for details on this in the FP instruction sheet.

If at any time the online course systems are not working or prevent you from uploading an assignment, as a backup, send your work via email directly to the instructor at dcrismond@ccny.cuny.edu.

Academic Integrity and Plagiarism

All work that you submit for this course must be original and in your own words, or cited from the original source with attribution. Copying others' work without giving credit by citing the source, or presenting others' ideas without acknowledgement, are serious forms of cheating. Copying an identical string of more than 7 words from another source counts as plagiarism. You need to cite ideas that you draw upon from others in your work, and use quotation marks for word-for-word copies of phrases or sentences others have written. Supplying another student with your own work makes you a contributor to plagiarism. Confirmed cases of plagiarism can lead to: a zero grade being given for the plagiarized assignment, an "F" may be given for the course, and a letter being sent to the Office of Academic Integrity. In cases of repeated offenses, suspension and expulsion may result. CUNY's Policy on Academic Integrity can be found at: <https://www.ccnycuny.edu/about/integrity>.

Access Needs and Accommodations

If you need accommodations due to access needs, or have emergency medical information to share with me, please let me know via email or phone. It is critical to request official academic accommodations as soon as possible by registering with the Access Ability Center, located on campus. For more information, call (212) 650-5913, or TTY/TTD (212) 650-6910, or email at disabilityservices@ccny.cuny.edu. You can also contact the Virtual Front Desk at <https://ccny.zoom.us/s/116151245>.

If you choose not to disclose this information to CCNY, please feel free to let the instructor know privately.

Withdrawal from courses

If you feel that you need to withdrawal from this course, please discuss your options with your instructor. You should be aware of certain deadlines related to this move. Withdraws done between Wednesday, July 6, and Thursday, July 7, 2022, will result in you receiving a 50% refund and no record of this course appearing on your transcript. If you withdraw anytime between Friday, July 8, through Sunday, July 10, a “WD” (Withdraw Drop) grade will appear on your transcript, and you will receive a 25% refund on tuition paid. Withdraws done between Monday, July 11, and Monday, August 1, will result in a “W” grade appearing on your transcript and with no refund of tuition. Withdraws done on or after Tuesday, August 2, 2022, through to the end of the semester will result in a failing grade being posted to your transcript.

Incompletes

Incompletes (INC) will only be given with prior approval for a substantial reason (e.g. documented extended illness or family emergency). It must be requested of your instructor ahead of time, and a written plan devised for finishing the work. Otherwise, a grade of INC shall not be given.

Learning Resources

CUNY Portal/Blackboard

Blackboard is used to distribute course announcements and materials, conduct online Discussion Forums, and to submit STEM Notebooks entries online. Contact the Service Desk (servicedesk@ccny.cuny.edu; 212-650-7878; NAC 1/301) or go online to <http://ccny.cuny.edu/it/help> or email bbsupport@ccny.cuny.edu if you have difficulties with Blackboard. You are responsible for using Bb to download course documents and upload assignments in a timely way, to allow for resolving any technical difficulties that you may encounter.

Multimedia Center

You can use computers with access to Internet and software that will be useful for preparing course assignments at the Multimedia Center in 4/221 when it is open, and also for borrowing equipment for doing video recording. Find out more about the MMC at <https://www.ccny.cuny.edu/mmcenter/>. During campus closures, you can use the services of the School of Education’s Virtual Lab Service Desk. Get the latest information about hours, phone number and Zoom Meeting ID for this service at: <https://www.ccny.cuny.edu/education/soe-virtual-lab-service-desk>

Learning Technology Resource Center

Support for all certification testing can be had at the Learning Technology & Resource Center, located in NAC 3/226: <https://www.ccny.cuny.edu/ltrcenter/> You can find out about online support for preparing for upcoming certification tests by visiting the Virtual Lab Service Desk, noted immediately above.

Course Schedule

Meeting/Date	Topics & Tasks	Homework Due
Session 1 Wed, July 6 Asynchronous	<p><u>SN#1</u>: Read pages from Linda Darling-Hammond’s How People Learn essay about different learning theories. See details in Instructions folder. Post entry to your STEM Notebook by EOD, July 11.</p> <p><u>SN#2</u>: Watch Heat Transfer videos on convection, conduction and radiation (Eureka). Read Hewitt-Heat Transfer pps 270-2, 275-7, 283-4. Write SN#2 summary of readings & videos, due EOD July 11.</p> <p><u>FW#1</u>: Review 5 PBS videos on ball-and-track fair tests + Zubrowski’s Explore Balls&Tracks video & his published notes. Post field notes to SN by EOD, 7/13.</p>	
Session 2 Thurs, July 7 Synchronous Online	<p><u>In-Class Topics & Tasks</u>:</p> <ul style="list-style-type: none"> • Introductions – tell story, science autobiography • Review Syllabus & Overview of Final Project • Distinguishing between Science & Engineering • What is inquiry? 3 Questions for any “Fair Test” • Kids with Snowman – intro conceptual cartoons • At-Home Test: Design Ice Cube experiment. <p><u>In Class Tasks: Do Six Stations Activity in Pairs</u> Identify 7 steps of Scientific Inquiry. Review scenario.</p> <p><u>Assign reading SGD#1</u>: Read Harlen-Ch 1; Drayton on Darwin; Shiland-Decookbook or Moscovici-Activitymania. Discuss July 12, post Notes 4 PM, 7/12</p> <p><u>Assign At-Home Experimentk SN#3</u>: Do Ice Cube test at home. Post Ice Cube report by EOD, July 13.</p>	
Session 3 Tues, July 12 Synchronous Online	<p><u>Small Group Discussions</u>:</p> <ul style="list-style-type: none"> • Share Leader Notes and lead a discussion on 1 of these 3 readings: Harlen-Chapter 1, Drayton on Darwin, Decookbook or Activitymania. <p><u>In-Class Topics & Tasks</u>:</p> <ul style="list-style-type: none"> • Inductive vs deductive learning: What is a Bloop? Introduction to the 1 Pager. • Review control, independent dependent variables. • Do Scavenger Hunt for hands-on task in class. • Introduce Learning Theories, present on 7/21. • Review Heat Transfer: convection, conduction, radiation. Use Energy 2D simulation on heat transfer <p><u>Small Group Reading GDR#2</u>: Foshay-Chap3 How to Start Lesson; Foshay Chap4-Organizing Info; Harlen - Chap3, Right Question at Right time. Discuss on 7/19</p>	<p><u>SGD#1</u>: Post SG Leader Notes on 1 reading: Harlen, Drayton, Moscovici, Shiland Due 4 PM, Tues, July 12. ➔ Post Reflections on SGD to SN by EOD, July 17.</p> <p><u>SN#1</u>: Post entry to How People Learn by EOD, July 11. Details in Instructions. Due by EOD, July 11.</p> <p><u>SN#2</u>: Post summary of Eureka videos and reading on heat transfer - Hewitt pages 270-2, 275-7, 283-4. Due by EOD, July 11.</p>

<p>Session 4 Wed, July 13 Asynchronous</p>	<p><i>INSTRUCTIONS TO APPEAR ON BLACKBOARD AROUND NOON</i> <u>SN#4</u>: Scavenger Hunt – Find hands-on design or inquiry tasks from Curricula folder that you like. Identify 5 of 8 Practices used, link task to NYCDOE Standards. Get materials, then do it. Take pictures of device in use. Post to SN by EOD, July 18. <u>SN#5</u>: Review Learning Theories, then claim 1 using link to be posted on Bb on Friday, July 15 at 8 PM. <u>SN#6/DF#1</u>: Read ed research re direct instruction vs. constructivist teaching debate. See details in BransfordKlahr-Instructions_SU'22.pdf. Due EOD 7/20 <u>FW#2-3</u>: Watch video (1.5 hours) of students doing Maplecopter investigation. Read Crismond-Taking Eng'g out for a Spin. Write 2 fieldwork entries on video, students' written work and rubrics. See Instructions. Post FW notes by EOD, Mon, July 18.</p>	<p><u>SN#3</u>: Post Ice Cube Report to STEM Notebook EOD, July 13.</p>
<p>Session 5 Thurs, July 14 Synchronous</p>	<p><u>In-Class Topics</u>:</p> <ul style="list-style-type: none"> • Review Ice Cube task, changes to “mental model?” • Introduction to Models – Globe vs World maps. • Watch IDEO video. How does IDEO maintain creativity over time? See its design thinking model. • Review FP instructions, lesson plan template. <p><u>Whole Class Discussion</u>: Ball-and-ramp activity, practice using 3 questions to design fair tests. <u>Assign SN#7</u>: Read Lehrer-Real Classroom Data, post regular SN entry on it, SG discuss. Due 4 PM, 7/14. <u>Assign Small Group Reading SGD#3</u>: Read Rowe-Wait Time; Wiggins-Teaching Dilemmas; Jonassen-Learn to Problem Solve. Leader Notes due 4 PM July 26.</p>	<p><u>FW#1</u>: Post field notes on ball & track investigations by PBS and Zubrowski. Review published “Explorations with Balls and Tracks.” Due EOD, July 13. <u>SN#5</u>: Claim the Learning Theory that you want to present on 7/21 using link to be posted on Bb on Friday, July 15 at 8 PM.</p>
<p>Session 6 Tues, July 19 Synchronous</p>	<p><u>Small Group Discussions #2</u>:</p> <ul style="list-style-type: none"> • Share Leader Notes and lead discussion on 1 of these 3 readings: Harlen-Ch3, Foshay Ch3 and Ch4. • Informal Small Group Discussion: Ways to display data from Lehrer– use your notes from SN#7. <p><u>In-Class Topics</u>:</p> <ul style="list-style-type: none"> • What is an animal? Interpreting developmental data about children’s evolving ideas about animals. • Review & use Bybee’s 5E instructional model • Watch Paul Black video on formative assessment. • Demo different ways to start hands-on tasks • Review how to complete a Green Light worksheet. <p><u>Hands-On Task</u>: Have paper, scissors and paper clips ready to do maple seed/whirligig activity during class</p>	<p><u>SGD#2</u>: Post Notes by 4 PM July 19 on chosen reading: Foshay-Ch3; Foshay Ch4; Harlen-Ch3 Due 4 PM, 7/19 ➔ Post reflection on SGD to SN by EOD, Sun, July 24. <u>FW2-3</u>: Post 2 entries re Maplecopter by EOD, 7/18. <u>SN#4</u>: Post Scavenger Hunt notes, EOD, July 18. <u>SN#5</u>: Post draft of Learn Theory 1 Pager EOD, 7/19. <u>SN#7</u>: Post regular SN notebook entry on Lehrer reading by EOD, 7/18.</p>

<p>Session 7 Wed, July 20 Asynchronous</p>	<p><i>INSTRUCTIONS TO APPEAR ON BLACKBOARD AROUND NOON</i> <u>FW#4</u>: Review videos and tutorials for the Model Parachute in <i>Design in the Classroom</i> website. Answer questions at the end of DITC videos, describe variables, impact on chutes descent, etc. Post Field Work notes to SN by EOD, Mon, July 25. <u>Hands-On Task</u>: • Explore key variables in Whirligig tasks. Use slow-motion. Design rules-of-thumb based on fair tests. <u>Assign SN#8</u>: Read Abell & Volkmann Ch 2, pick FA task, prepare to discuss 1 vignette Ch 3,4, or 5. Notebook entry (200 word) due by EOD, July 25. <u>Assign SN#9-10-11</u>: Post Science Storyline, Lesson Plans, 1 Pager for Kids after getting Green Light.</p>	<p><u>SN#6/DF#1</u>: Post Discussion Forum and SN on Bransford/Klahr reading EOD, July 20. <u>To Do</u>: Sign up for required FP Zoom meeting with DC, write/post notes in 3 days.</p>
<p>Session 8 Thurs, July 21 Synchronous</p>	<p><i>LEARNING THEORY PRESENTATIONS</i> <u>In Class Topics</u>: • Review Wiggins - 6 Facet of Understanding • Intro to designing a 1 Pager for Kids <u>Class Discussion</u>: Direct (Klahr) vs Constructivist Teaching (Bransford) – CVS, inert know., transfer.</p>	<p><u>SN#9-10-11</u>: Post draft Science Storyline, Lesson Plans + 1 Pager for Kids after Green Light and as soon as possible for DC feedback.</p>
<p>Session 9 Tues, July 26 Synchronous</p>	<p><u>Small Group Discussions</u>: • Leader discussion on: Rowe-Wait Time; Wiggins - Dilemmas or Jonassen-What’s Problem Solving <u>In Class</u>: Intro WHERETO lesson planning guide. • Review teaching timeline & science of parachutes • DC coach sessions on FP plans and 1 Pager for Kids. <u>Be prepared to discuss</u>: One vignette from your FA homework, Abell & Volkmann, Chapter 3-4-5.</p>	<p><u>SGD#3</u>: Post Leader Notes on Rowe, Jonassen, or Wiggins. Due 4 PM, July 26. Post Reflections EOD, 6/26. <u>SN#7</u>: Post SN entry (200 word) by EOD, July 25.</p>
<p>Session 10 Wed, July 27 Asynchronous</p>	<p><i>INSTRUCTIONS TO APPEAR ON BLACKBOARD AROUND NOON</i> <u>Optional In Class</u>: Coaching with DC from 11 AM to 2:20 PM available to review LPs, Storylines 1 Pager. <u>Assign</u>: • 1 hour ViSTA as fieldwork, pick your topic. • Watch videos re 4 big ideas computational thinking and programming with Scratch. • Algorithm for reading a 12-hour clock for kids.</p>	<p><u>Week 4</u>: Have Green Light approval, turn in final drafts -Lesson Plans, Sci Storyline, 1 Pager for Kids) EOD July 1 <u>FW#5-6</u>: Submit 2 fieldwork notes by EOD, Aug 3.</p>
<p>Session 11 Thurs July 28 Synchronous</p>	<p><i>COMPUTATIONAL THINKING IN ELEMENTARY SCI CLASS</i> Do unplugged + programming tasks with Scratch • Lead small Group talk, Wiggins Teaching Dilemmas</p>	<p><u>FW#5</u>: Post last fieldwork entries in STEM Notebook by EOD, Wed, August 3.</p>
<p>Session 12 Tues, August 2 Synchronous</p>	<p><u>Presentation</u> – 6-8 minute report on Final Project <u>In Class</u>: What is a trillion?</p>	<p><u>SN#10</u>: Post your Final Project Report and share 5-10 min solo teach video via Google Drive by EOD, Aug 3. <u>To Do</u>: Post Fieldwork Timesheet for DC signature.</p>