



Professional Development Webinars

March 2020

- 3/14/2020** **Webinar: CSET Review - Life Science** **Fresno State University**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
(8 a.m. – 3 p.m.) Life Sciences for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (217) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!
Contact Alyssia Aguilar for the required form: alaguilar@csufresno.edu
- 3/16/2020** **Webinar: Spring 2 (March 16–April 26, 2020)** **American Museum of Natural History**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://learn.amnh.org/>
Cost: \$420 **Stipend:**
A variety of online courses designed for teachers
- 3/16/2020** **Webinar: Supporting (NGSS) Learning with Video** **EdWeb.net**
Grades: 6th;7th;8th
<https://home.edweb.net/webinar/science20200316/>
Cost: FREE **Stipend:**
12:00 PM - 100 PM (Pacific Time) - How can video games be used to support engaging three-dimensional learning in the new Next Generation Science Standards (NGSS) framework? In this edWebinar, we will dive into how games can be used to support the innovations of the NGSS, such as progressions of the three dimensions across K-12, being phenomena-driven, and teaching with storylines. We will use Tyto Online, which has been developed with support from NSF and Dept. of Education grants, for our hands-on application. This will include seeing a model video game activity for middle school science, analyzing how it successfully supported the NGSS, and identifying how it could be expanded on with classroom instruction to strengthen learning. We'll see examples of classroom implementation and student work with the game, and you'll be given resources so you can make a plan for how you can use games to support these practices in your own classroom.

By the end of this edWebinar, participants will be able to:

Articulate the main innovations of the NGSS
Identify specific ways games can be uniquely used to support three-dimensional learning
Explain what classroom instruction would look like alongside using games for the NGSS, including how to make the connections between the three dimensions and gameplay activities more explicit for learners
Make a plan for using games within their own science classrooms
- 3/16/2020** **Webinar: Book Club: The Big Melt** **National Oceanic and Atmosphere Administration**
Grades: K;1st;2nd;3rd;4th;5th
<https://oceanservice.noaa.gov/education/planet-stewards/upcoming.html>
Cost: FREE **Stipend:**

(5 pm Pacific) The Big Melt by Ned Tillman (Young Adult Fiction)

Sleepy Valley is a town probably similar in many ways to the one where you live. Things are fine on the surface but no one is thinking about the future. Are you ready for what is about to happen to you and to towns all across the country and around the world? Marley and Brienne, the main characters in our story, were not. Nor were their parents, their neighbors, or anyone in town. When they woke up on the day after their high school graduation they found their lives turned upside down as a series of climate catastrophes descended on their town. They struggle to find their voices and their purpose for living while attempting to save their family and friends, their town, and civilization as we know it.

* Anyone can participate. Just read the book prior to the discussion, and on the day of the meeting dial in using our toll free number 1-866-662-7513. Then use the passcode 1170791#

* Before each meeting we'll send out a reminder note through our email list along with series of discussion questions the meeting leader will have prepared.

* Please be aware there are a limited number of seats available for each meeting, so try to dial in just a few minutes before the official start time.

3/17/2020 Webinar: Life Cycles with Birds Cornell Lab of Ornithology

Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

<http://www.birds.cornell.edu/k12/webinars-2/>

Cost: FREE

Stipend:

3:00 PM PST Explore the world of nesting birds through observing wild nests, building nest boxes, and participating in citizen science. Then talk to an expert about the do's and don'ts of observing nesting birds.

3/19/2020 Webinar: Life Cycles with Birds Cornell Lab of Ornithology

Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

<http://www.birds.cornell.edu/k12/webinars-2/>

Cost: FREE

Stipend:

5:00 PM PST Explore the world of nesting birds through observing wild nests, building nest boxes, and participating in citizen science. Then talk to an expert about the do's and don'ts of observing nesting birds.

3/19/2020 Webinar: Make Scientific Research Accessible for Students EdWeb.net

Grades: PK;TK;K;1st;2nd

<https://home.edweb.net/webinar/planet20200319/>

Cost: FREE

Stipend:

11:00 AM PDT Research Accessible for Students: Plant Species and Pollinator Conservation. Dr. Peters will discuss her research on priority plant species for the conservation of pollinating insects, including bees—the most effective pollinator group. Attendees will learn how to build connections between micro and macro levels of ecosystem interactions using Neotropical mountain ecosystems as their “laboratory.” Attendees will explore how specific traits of plant species may benefit pollinator biodiversity, and how deforestation, changing precipitation patterns, and rising temperatures are threatening many bee species in the Neotropics.

Dr. Peters' research is regularly supported by the efforts of citizen scientists, including volunteers from the local area and international programs such as Earthwatch, as well as Student & Teacher “Argonauts” from JASON Learning, a K-12 STEM education program. Dr. Peters will share her thoughts on how teachers can translate scientific research on the impacts of climate change into classroom-accessible language that students can digest and act upon. She will be joined by JASON curriculum expert Amy O'Neal who will share classroom-ready climate change resources and lessons.

3/21/2020 Webinar: CSET Review -Chemistry Fresno State University

Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>

Cost: FREE

Stipend:

(8 a.m. – 12 p.m..)Chemistry for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (218) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!

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3/21/2020 Webinar: CSET Review -Earth and Space Sciences Fresno State University

Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>

Cost: FREE

Stipend:

(12:30 p.m. – 4:30 p.m..)Earth and Space Sciences for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (test code 219) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!

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3/24/2020 **Webinar: How to "NGSS-ify" the Question Formulation Technique: A Deep Dive** **National Association of Geoscience Teachers**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
https://nagt.org/nagt/profdev/workshops/ngss_summit/mar262020/index.html
Cost: free **Stipend:**
1:00 PM How do you design a NGSS unit (or modify an existing NGSS storyline) so that it starts with powerful, authentic student questions? What are best practices for helping students channel their wonderings into rigorous, relevant investigations? And, what do you do with the questions you can't answer? In this webinar, veteran Middle School science teacher, Nicole Bolduc, addresses these questions and more, as we take a deep dive into adapting the Question Formulation Technique (QFT) for the NGSS classroom. Using her own unit on sound as a template, Nicole will walk you through how to design for more student questioning in your own classroom. Leave with a specially curated set of resources and templates to get you started. This webinar is the second in a series of two webinars about how to integrate the Question Formulation Technique (QFT) and the Next Generation Science Standards (NGSS). While there will be a brief recap at the start of this webinar, we suggest you review the March 5th webinar if possible.

3/28/2020 **Webinar: CSET Review -Physics** **Fresno State University**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
(8 a.m. – 3 p.m.)Physics for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (test code 220) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!
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April 2020

4/1/2020 **Webinar: The Art and Science of Teaching Climate Change** **Green Teacher**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://greenteacher.com/webinars/>
Cost: FREE **Stipend:**
(4:30-5:30pm PST) Want to cover climate change in the classroom, but not sure where to start? You're not alone. A recent NPR/Ipsos poll showed that less than half of K–12 educators surveyed tackle climate change in their classrooms. In this webinar, educators will learn strategies to communicate climate change principles that can be applied to any classroom. Through practical, inquiry-focused activities, teachers will gain tools to navigate one of the most important environmental issues of our generation.

4/8/2020 **Webinar: The Joy of Garden-based Education** **Green Teacher**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://greenteacher.com/webinars/>
Cost: FREE **Stipend:**
(4:30-5:30pm PST) Kids are just happier when they are outside learning. Using mother nature as a laboratory setting is an incredible way to engage students in first-hand study of the principles of ecology, geology, and climate change. You will learn the fascinating science behind the social, psychological and physiological benefits of using gardens to teach. Besides, donning a big grin, students learn scientific concepts more effectively when performing hands-on investigations outside so their grades soar. Outdoor based education is a sure way to nurture global citizens for the stewardship of our planet. You can't go green without going teen!

- 4/20/2020** **Webinar: Book Club: Rising** **National Oceanic and Atmosphere Administration**
 Grades: K;1st;2nd;3rd;4th;5th
<https://oceanservice.noaa.gov/education/planet-stewards/upcoming.html>
Cost: FREE **Stipend:**
 (5 pm Pacific) Rising: Dispatches from the New American Shore by Elizabeth Rush
 With every passing day, and every record-breaking hurricane, it grows clearer that climate change is neither imagined nor distant—and that rising seas are transforming the coastline of the United States in irrevocable ways. In Rising, Elizabeth Rush guides readers through some of the places where this change has been most dramatic, from the Gulf Coast to Miami, and from New York City to the Bay Area. For many of the plants, animals, and humans in these places, the options are stark: retreat or perish in place.
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 * Before each meeting we'll send out a reminder note through our email list along with series of discussion questions the meeting leader will have prepared.
 * Please be aware there are a limited number of seats available for each meeting, so try to dial in just a few minutes before the official start time.
- 4/21/2020** **Webinar: Discover Evolutionary Diversity** **Cornell Lab of Ornithology**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://www.birds.cornell.edu/k12/webinars-2/>
Cost: FREE **Stipend:**
 3:00 PM PST From Darwin's finches to the Birds-of-Paradise, Birds are the ideal animals to study when teaching topics such as natural and sexual selection and speciation. Utilizing online interactives from the Bird Academy's website and our Evolution in Paradise lessons, we will explore natural and sexual selection and how it's contributed to the diversity of birds through behavioral and anatomical adaptations.
- 4/21/2020** **Webinar: Shifting to the NGSS: Professional Book Study** **National Science Teaching Association**
 Grades: TK;K;1st;2nd;3rd;4th;5th;6th
<https://learningcenter.nsta.org/bookstudy/2020-Spring.aspx>
Cost: NSTA Member: \$63, Non-member: \$79 **Stipend:**
 (4:15–5:45 PM PST - April 21, April 28, May 5, May 12) NSTA has developed an online book study around the Enhanced E-book: Discover the NGSS: Primer and Unit Planner. This enhanced e-book offers a comprehensive introduction to the NGSS, including background information, each of the three dimensions in depth, and steps to move teachers toward classroom implementation.
- 4/23/2020** **Webinar: Discover Evolutionary Diversity** **Cornell Lab of Ornithology**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://www.birds.cornell.edu/k12/webinars-2/>
Cost: FREE **Stipend:**
 5:00 PM PST From Darwin's finches to the Birds-of-Paradise, Birds are the ideal animals to study when teaching topics such as natural and sexual selection and speciation. Utilizing online interactives from the Bird Academy's website and our Evolution in Paradise lessons, we will explore natural and sexual selection and how it's contributed to the diversity of birds through behavioral and anatomical adaptations.
- 4/29/2020** **Webinar: Indigenous Arts and Sciences: Connecting STEM to Indigenous** **Green Teacher**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://greenteacher.com/webinars/>
Cost: FREE **Stipend:**

(4:30-5:30pm PST)The spring walleye harvest is the time when the frogs begin to sing, the snow turns to water, and the maple sap is ready to tap. Tribal elders speak of the rich knowledge generations of Indigenous people have acquired by close observation and learning from local plants and animals. Understanding and respectfully acknowledging the interrelationships of phenomena and events in the natural world in a reciprocal and respectful way; honoring those relationships is the basis of traditional ecological knowledge. Contemporary First Nations youths, and all young people, could benefit from understanding the natural world and their relationship with it. A deeply collaborative approach between tribal, university, and K–12 partners has the potential to invigorate Indigenous youths in science endeavors, make STEM more relevant to them (and their peers), as well as foster positive school cultures. Earth Partnership at the University of Wisconsin-Madison convened the expertise of elders and community members from Ho-Chunk, Bad River, Lac du Flambeau, Lac Courte Oreilles, and Red Cliff Nations with university social, physical, and life scientists to develop a culturally relevant environmental education program to improve experiences in science learning. The resulting Indigenous Arts and Sciences (IAS) is an approach to environmental science education that engages Indigenous wisdom and scientific processes rooted in respect and reciprocity. While these are distinct from the more linear and chronological traditions of Western science, there are intersections at which Western sciences and Traditional ecological knowledge can meet and interact with one another to their mutual benefit. This webinar is a story about Earth Partnership's Indigenous Arts and Sciences—how it began, how our collaboration works, and what we have learned (and are still learning) along the way.

May 2020

5/19/2020 **Webinar: Get Outside for Summer!** **Cornell Lab of Ornithology**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://www.birds.cornell.edu/k12/webinars-2/>
Cost: FREE **Stipend:**
 3:00 PM PST Get kids outside and ready for summer exploration! We'll share simple activities that can connect kids to nature through birds.

5/21/2020 **Webinar: Get Outside for Summer!** **Cornell Lab of Ornithology**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://www.birds.cornell.edu/k12/webinars-2/>
Cost: FREE **Stipend:**
 5:00 PM PST Get kids outside and ready for summer exploration! We'll share simple activities that can connect kids to nature through birds.

June 2020

6/6/2020 **Webinar: CSET Review - General Science** **Fresno State University**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
 (8 a.m. – 4:30 p.m.) Review for General Science Subtest I (test code 215) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!
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6/13/2020 **Webinar: CSET Review - Life Science** **Fresno State University**
 Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
 (8 a.m. – 3 p.m.) Life Sciences for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (217) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!
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- 6/20/2020** **Webinar: CSET Review -Chemistry** **Fresno State University**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
(8 a.m. – 12 p.m..)Chemistry for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (218) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!
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- 6/20/2020** **Webinar: CSET Review -Earth and Space Sciences** **Fresno State University**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
(12:30 p.m. – 4:30 p.m..)Earth and Space Sciences for those needing more review for Subtest I (215) and those wanting to prepare for Subtest II (test code 219) MSTI wants to serve as many teachers as possible throughout California, so we are offering these workshops online and free of charge! The workshops are offered in an interactive, online format in partnership with StudentNest. The teachers are all experienced professional educators and highly effective online instructors. Each workshop is recorded. Following the workshop, you will receive a link to access this recording so you can review selected topics again on your own. If you are already a credentialed teacher or a student at Fresno State, you can have your CSET fees reimbursed, too!
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- 6/27/2020** **Webinar: CSET Review -Physics** **Fresno State University**
Grades: K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th
<http://fresnostate.edu/kremen/about/centers-projects/teachmathscience/>
Cost: FREE **Stipend:**
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