MULTI Teacher Summer Institute Facilitator Agenda
Our Environment, Our Health
June 5 - 9, 2017; 8:00am-4:00pm
MSU Denver Campus (Auraria)
Science 1086

Monday, June 5 (green tabs)

Time	Activity	Facilitator	Resources
8:00-9:00	Breakfast in SI 1086		
9:00 – 9:05	Welcome	Janelle & Rich	
9:05-9:20	Community Building Speed networking—STEM & NGSS What does STEM currently look like at your site? Where are you with your understanding of NGSS? Share out (take notes on padlet) https://padlet.com/jjaz2co/b3666nxyrgt3	Janelle	Speed networking—STEM & NGSS Record responses on padlet—projector
9:20-9:30	MULTI NSF ITEST Project: Discuss the project, look at agenda and point out work sessions, explain use of padlet, implementation Questions before we get started?	Janelle/Team	NSF Title & Abstract (to discuss) Week's agenda*
9:30-9:40	Brief GLOBE overview & certification. Questions re teachers' guide intro?	Kristin & Rich	GLOBE teachers guide intro* GLOBE Program & NGSS Dynamic Planet
9:40-9:50	Introductions by all	All	Nametags
9:50-10:00	GLOBE/MSU Denver IRB permissions and photo releases	Linda	ICPS Photo release IDs
10:00 - 10:45	Discussion re inquiry, Problem-Based Learning and Backward Design Point out resources in binder Participant small group discussion:	Janelle & Becca (All support)	How to Read NGSS Scientific & Engineering Practices https://www.nextgenscience.org/search-

	What questions do you have about NGSS and how to read it? How comfortable are you with the Scientific and Engineering Practices? What are ways you incorporate problem-based/project based learning in your classroom? How do you help students, especially underserved students, connect with science instruction? What kind of role does backward design play in your science teaching? Share out-take notes on padlet **https://padlet.com/jjaz2co/ic59qzyb6y44**		standards?keys=&type%5B%5D=topic_arrangement&tid%5B%5D=106&tid_3%5B%5D=97&tid_3%5B%5D=96&tid_3%5B%5D=94&tid_3%5B%5D=95 BIE.org handouts* 8 Essentials Rubric Creating Driving Questions Trauma in Community Record responses on padlet—projector
10:45-11	Break		
11– 11:15 11:15-11:30 11:30-12	Intro to *C*ollaboration through GLOBE (have another session on Thursday); invite partners to comment Intro to Padlet—customizable/community Have everyone sign up What components are required for your planning lessons and/or units? Whole week is "My environment, my health" Elements of the modules - Introduction of Fire Module Template (will have work session later) Q & A	Kristin & Jen Janelle Janelle (All support)	Show GLOBE website Sign up at https://padlet.com/auth/signup Intro to padlet https://padlet.com/jjaz2co/djrhkzk19c2x Components of module at https://padlet.com/jjaz2co/6qtqf6t7l3d Link to fire module https://padlet.com/jjaz2co/5svroqf8hu1n
12:00 - 12:45	Lunch—Get to know everyone! (Science 1111)		
12:45 – 1:45	Developing Science Expertise - Fire Science and the Application of Remotely Sensed Data and Information	Amber & Rich	Fire & Human Health padlet at https://padlet.com/jjaz2co/5svroqf8hu1n IDEA

1:45-2:00	Intro to NASA Worldview	Amber	Wildfires and Air Pollution* GLOBE Fire fuel protocol (NOTE: no data collection mechanism as of now) NASA Worldview
2:00 - 2:15	Break		
2:30 – 3:45 3:45-4:00	Work Session: Continue hands on activity; Customize Fire module for own classes. Q & A w team Share out and reflect on the day's information (take notes on padlet) **https://padlet.com/jjaz2co/230llbyue1pl** Paperwork Breakfast tomorrow in 1111	Amber w/ Team support Team	Padlet on laptops Record responses on padlet

Tuesday, June 5 (red tabs)

Time	Activity	Who's leading it	Resources
8:00-9:00	Breakfast in SI 1111		
9:00 – 9:30 9:30-9:45	Intro to Air Quality and its effect on health / GLOBE and e-trainings Take notes on padlet Introduction to instruments--discuss	Rich & Kristin Rich, Mike	Air Quality and Human Health padlet https://padlet.com/jjaz2co/4cmg27l3590w GLOBE website projected (GLOBE Ozone protocol and learning activities) Elementary GLOBE book on aerosols Weather stations, meters, etc.
9:45-10:00	Break		

10:00 - 11:00 11:00-12:00	Air Quality learning activity; Satellite Data / Particulate Matter Activity/ Data Collection Interactive look at air pollution data	Dawn, Rich, Mike Rich	Air Quality and Human Health padlet https://padlet.com/jjaz2co/4cmg27l3590w Field measurements; (1)temp, (2)particulate matter (PM2.5), (3)color (4)humidity (5)ozone CO Dep't of Health Air Quality Monitoring: http://www.colorado.gov/airquality/
12:00 - 12:45	Lunch (informal GLOBE roundtables) in SI 1111 Share your expertise and learn about others'		
12:45 - 2:15	Developing Science Expertise - Understanding Climate Data: What do the numbers mean and how to incorporate data in class? Teachers work on climate project in Padlet	Mike MacFerrin Team	Weather, Climate, & Human Health Padlet https://padlet.com/jjaz2co/qt94bvad87xf
2:15 - 2:30	Break		
2:30 – 3:45 3:45-4:00	Work session: Build modules out of today's activities for own classes Lead into connection to fire and air quality Share out and reflect on the day's information (take notes on padlet) **https://padlet.com/jjaz2co/230llbyue1pl**	Team Rich Janelle	Padlet on laptops Record responses on padlet—projector

Wednesday, June 7 (blue tabs)

Time	Activity	Who's leading it	Resources
8:00-9:00	Breakfast		
9:00 - 10:00	Monsoons and Health: GLOBE Data Exploration	Rich and Janelle	GLOBE Benin activity* Weather, Climate, & Human Health Padlet https://padlet.com/jjaz2co/qt94bvad87xf
10:00 – 10:45	STEM Equity, intercultural competencies and differentiation Lead discussion using padlet https://padlet.com/jjaz2co/5h8dovlx0j2j	Janelle Joanna Kristin & Jen	STEM Equity padlet STEM Equity Overview Cooperative Learning Techniques Effective Feedback Assessing Science Practices Promoting Culturally Based Teaching Formative Assessment Probes Six Strategies Designed to Differentiate Feedback for Learning
10:45-11:00	Break		
11:00 - 12:00	CCD Panel: Field Experiences - Impact on Student Perspectives	Dawn	
12:00 - 12:45	Lunch Roundtables SI 1111		
12:45 - 1:45	Standards & NGSS Application Q & A	Joanna Bruno of Colorado Department of Education	NGSS, Colorado Academic Standards Guide to reading NGSS*
1:45 - 2:15	Work Session: Module Development and Activity Adaptation; Connect to standards, incorporate Intercultural Competencies	ALL	
2:15 - 2:30	Break		

2:30 - 3:45	Career Awareness / Workforce - how to incorporate into modules	Josh Kumin of Open WorldLearning (OWL)	Career resource handouts*
3:45 - 4:00	Share out and reflect on the day's information **https://padlet.com/jjaz2co/230llbyue1pl**	Team	Record responses on padlet—projector
4:00-5:15	Break for team members		
5:15	Depart for Tamayo (walking from Springhill Suites)		
5:30-7:30	Group dinner at Tamayo		

Thursday, June 8 (purple tabs)

Time	**Activity**	**Who's leading it**	**Resources**
8:00-9:00	Breakfast		
9:00 - 11:00	Clouds activities: sky color, observing clouds w app, % activity, show e module Using the website for GLOBE Training; how to navigate/ e trainings; help desk (scavenger hunt) Discussion on Preparing Student Research Symposium (Int'l science fair; rubrics, posters) Future workshops Q&A	Kristin & Jen	Blue and white paper Thermometers GLOBE website and how to contact help desk Shortcuts handout GLOBE links Scavenger Hunt Timeline for participation in events GLOBE learning activities: estimating cloud cover, estimating sky color; clouds
11:00-11:15	Break		
11:15 - 12:00	Teacher Panel - What does implementation look in classrooms?	Participants	Teachers' Amazon trip presentation
12:00 - 12:45	Lunch: Topical roundtables —SI 1111		
12:45 - 1:15	Career awareness: How do Scientists operate in the real	Mike	NASA STEM Careers Add to padlet

	world - Greenland Project		
1:15 – 1:30 1:30- 2:15	Look at particulates; discuss Small Group Discussions: Teachers incorporating STEM Career Awareness	Dawn All	Samples Padlets Info from OWL and Mike's session
2:15 - 2:30	Break		
2:30 – 3:45 3:45-4:00	Work Session and Q&A Share out and reflect on the day's information (record notes on padlet) **https://padlet.com/jjaz2co/230llbyue1pl**	Team	Padlet on laptops Record responses on padlet—projector

Friday, June 9 (yellow tabs)

Time	**Activity**	**Who's leading it**	**Resources**
8:00-9:00	Breakfast in SI 1115 (short HHMI mosquito videos)		
9:00 - 10:00	Water Quality Activity: Macroinvertebrates to assess water quality Dawn's talk	Jason	Water Quality & Human Health padlet https://padlet.com/jjaz2co/vtxhjxhbuih9 Using Macroinvertabrates as Bioindicators
10:00-10:15	Break		
10:15 – 11:40	Field Experience in 3 Stations/30 minutes each Macroinvertebrate activity Mosquitoes & Health Activity Water quality	Dawn & Henry	Instruments HHMI Biointeractive GLOBE mosquito habitat mapper app Mosquito larvae protocol Mosquito reference manual A World without Mosquitos Mosquito Life Cycle Activity West Nile Virus Vectors & Hosts

11:45 - 12:45	Lunch: Mosquito Video in SI 1115		
12:45 -2:45	GLOBE data entry and analysis	GLOBE team	GLOBE website and app; data activities
2:45 - 3:00	Break		
3:00-3:30 3:30 - 4:00	Data collection in your classroom Evaluation of Summer Institute on Qualtrics Wrap Up/Certification/ Next Steps: Additional GLOBE workshops; school visits; support with posters, etc.	Janelle Mariana Team	Padlet for data collection; IRB forms Survey Monkey Certificates Follow up