BIOME 2022 Recap

We had the most amazing time at this year’s BIOME Institute summer session - we were inspired by conversations, the sharing of fantastic resources, connecting with our participants, and watching them connect with each other.

Thank you so much to all of our presenters, discussion bunch leaders, keynote speakers, and everyone else who made the institute so engaging.

It is a lot of work to put together any conference - in the end, we are tired but so buoyed by the passion and commitment we saw on display and grateful to keep serving and supporting this wonderful community through the fall. Watch out for more great resources and ideas (and IDEAs) coming out of these groups!!

Below, you’ll find:

- A recap of our keynotes
- A list of our fall working groups
- Resource collections inspired by conversations
- Highlights from #BIOME22 social media
Keynotes

Dr. Ruthmae Sears kicked off the Institute on Monday, July 18, with an informative presentation of her approach to incorporating JEDI (justice, equity, diversity, and inclusion) issues with her math education students. She and co-researchers found that using the four-square systemic change approach increased students’ awareness and attention to JEDI in the curriculum.

"I charge all of you to be proactive versus reactive, to exhibit effective communication skills, to network purposefully and facilitate reflections about the systemic change approach," said Sears.

Check out our live-tweet of the talk.

You can find resources from her talk here.

On Friday, July 22, Dr. Mica Estrada rounded out the synchronous week with an inspiring talk about the power of kindness in increasing a sense of belonging, inclusion, and identification in STEM. She discussed research that explored the significant factors that contribute to retention in STEM majors and careers - finding that the social experiences of students play a huge role. Acts of kindness - that affirm students’ dignity - can have radical impacts on a student’s experience and connection to their institution and to STEM.

"We may not be paying enough attention to the social experiences students are having in their learning environment. And that lack of attention to the social connection, particularly for historically underrepresented students, can undermine the most effective activities," Estrada said.

Check out the live-tweet here.

Additional resources.

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Fall working groups

The following working groups coalesced during the second, asynchronous week of the BIOME. We can’t wait to see the work they do.

- Using Augmented Reality to Improve Visualization Skills in the Biology Classroom
• Piloting "Box of Lessons" for Exploring Biomolecular Structure and Function
• Game 2 Grow (Guided Resource to Obtain Wonderment) in STEM
• Building, supporting, & assessing IDEAS-informed groups & teams
• Revealing Hidden Figures within Natural History Collections
• Kindness Reading Group
• One Health, Ecology, and Pre-Health/Biological Science Education
• Developing podcasts and in-class activities to develop data skills
• Rule-of-Four Statistics: Building a conceptual understanding of stats in intro bio courses
• QSSI (Quantitative Skills and Science Identity)

Resource Collections
Check out the collections of materials available to support the BIOME themes and activities, including:

• Land Acknowledgement Resources
• Accessibility Resources

Social media highlights

Derek Sollberger @DerekSollberger - Jul 18
"We must address inequities in math education across the whole curriculum" [paraphrased] --- Dr Ruthmae Sears, keynote speaker at #biome22

Megan Lupek @EnvironMegan - Jul 18
Excellent keynote by Dr. Ruthmae Sears at @BioQUESTed's #BIOME22! #JEDI issues absolutely belong in #STEM classrooms!

Shuchismita Dutta @3D_Viz - Jul 19
Great presentations at the RIOS workshop today at #BIOME22. Thanks @kaitlin_bonner @mlbiotech @CarlosGoller Let's continue working on Open Science

Usha Sankar (She/her) @usankar2 - Jul 20
Absolutely loved the @BioQUESTed workshop on 'National Training Program in Inclusive STEM Teaching.' Extremely well done! Great presentation, and wonderful discussions with Carolina Mehaffy & @EnvironMegan #BIOME22