

**NASA Innovations in Climate Education (NICE)**  
**Teacher Professional Development Workshop**

From greenhouse effect to Earth's rising temperatures and resulting impacts on plants, bugs and birds, increase your understanding of these timely topics and more at the NICE Teacher Professional Development Workshop. This workshop is a four part series featuring climate literacy content and classroom resources from NASA and NICE Earth Systems Scientists. It is open to all Science, Technology, Engineering and Math, K-12 teachers. Content will be geared toward the 5-9 grade band.

***Our goals include providing teachers with:***

- In depth understanding of complex climate content such as the greenhouse effect and its positive attributes, temperature rise measurements, and expected and observed changes in plant, bug and bird phenology.
- Educational resources and tools available through Langley Research Center based climate related programs such as NICE, SCOOOL (Students' Cloud Observations OnLine), MyNASAData, and Globe.
- Information about citizen science programs, student video making, and other activities teachers can use to engage their students in learning about Earth's climate.

***There are 3 ways to participate in this series:***

- 1) In Person – 25 participants will be selected to join us at NASA Langley Research Center's Digital Learning Network classroom. There will be optional tours prior to the sessions. Participants attending all 4 sessions, submitting concept maps as directed during the sessions and completing the end of course survey will receive a 200\$ stipend. No travel funds are available at this time. [Apply here by Friday March 8th](#)
- 2) Two Way Virtual – 10 participants will be selected to join our classroom at Langley virtually with two way video and sound capability. We will see and hear you and you will see and hear us. Participants that attend all 4 sessions virtually, submit concept maps as directed during the sessions and complete the end of course survey will receive a 100\$ stipend. Minimum technology requirement: computer with internet access, webcam and microphone. [Apply here by Friday March 8th](#)
- 3) Workshop without Walls - One Way Virtual – [Unlimited participation through live webcast at NASA's DLN website](#)

***Session Information:***

Session 1 – Understanding the Greenhouse Effect with Dr. Lin Chambers, NASA Langley Research Center  
Tuesday, April 9<sup>th</sup>, 4 PM to 5:20 PM (EST)

Session 2 – Earth's Increased Temperatures with Dr. Kevin Czajkowski, University of Toledo-  
Thursday, April 11<sup>th</sup>, 4 PM to 5:20 PM(EST)

Session 3 – Changes in Plant Phenology with Dr. Jennifer Schwarz, Project Budburst and Dr. Juliette Rooney Varga, UMASS Lowell - Tuesday, April 16<sup>th</sup>, 4 PM to 5:20 PM (EST)

Session 4 – Changes in Bug and Bird Phenology with Dr. Jeffrey Heppinstall, U of Georgia –  
Thursday, April 18<sup>th</sup>, 4 PM to 5:20 PM(EST)

***For more information email the NICE Management team @ [nice-mgmt@lists.nasa.gov](mailto:nice-mgmt@lists.nasa.gov)***