



# 2021 Donna Sterling Institute

## The Path Forward: Finding Smart Solutions in Energy and Climate Science Using Problem-based Learning

**Synchronous sessions: October 9 and 16 (3 hours each)**  
**Asynchronous instruction: Oct 3-8 and 10-15 (~2 hours each)**

**Register May 8 to October 1 Online**

**<https://vast.wildapricot.org/Registration-Information>**

We are pleased to announce the 2021 Donna Sterling Institute. It will be virtual this year. Donna Sterling was instrumental in her vision of problem-based learning (PBL) as a means of teaching and integrating science with math, engineering, technology, and language arts. She was committed to meeting the diverse needs of our students through culturally responsive practices. PBL prepares students for academic, personal, and career success by helping them make important connections. It also supports young people to meet the challenges of the world they will inherit.

The Sterling Institute supports teachers in developing and enacting PBL units in their instruction through a 10-hour professional development offered in a series of face-to-face and virtual sessions. Here is your chance to learn how to implement this powerful teaching strategy!

### **Participants will**

- Use a PBL approach to learn about climate and energy
- Engage in National Energy Education Development (NEED) activities to support understanding climate and alternative energy
- Learn the key components of a PBL unit
- Consider ways to modify what you learn to meet the Standards you teach and the needs of your students
- Develop plans for their own PBL

### **Sterling Institute Schedule**

#### **Asynchronous Oct 3-8 (2 hours)**

Introduction to Sterling Institute and PBL  
Introduction to the Scenario, Overarching Question, Culminating Activity  
Climate Science (Don Haas)

#### **Synchronous October 9 (9-12)**

Introduction to question mapping  
“Hands on” inquiry activity  
Introduce PBL planning template

#### **Asynchronous Oct 10-15 (2 hours)**

PBL Planning: Each participant develops a unit plan, question map, and culminating activity

#### **Synchronous October 16 (9-12)**

Small breakout groups (4-6 people) by content area/grade level with a Sterling facilitator.

**Asynchronous Wrap Up by November 20**





# 2021 Donna Sterling Institute

## Finding Smart Solutions in Energy and Climate Science

K-12 students need a fundamental understanding of energy to develop a thorough, comprehensive understanding of climate science and the path forward to climate and energy resiliency. However, decisions about climate and energy policy are seldom made from a foundation of science.

The 2021 Sterling Institute in collaboration with NEED Energy will engage participants in a PBL unit using a topic of climate and alternative energy, which is adaptable for elementary through high school students. Participants will learn about climate and alternative energy from nationally known climate educator Dr. Don Haas in a virtual presentation and engage in NEED lead activities to help understanding of climate and alternative energy.

Teachers learn the key components of a PBL unit including designing an authentic scenario and essential question, question map development, and creating culminating activities. Teachers will develop plans on how to modify what they learn to meet the Standards they teach and the needs of diverse students in their own classroom context and will begin planning their own PBL.

### **Donna Sterling Institute Registration Fee: \$30**

(Institute registration fee does not include registration for the VAST PDI)

**Register May 8 to October 1 Online**

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**Instructors:** Jaclyn Claytor, Robin Curtis, Dr. Elizabeth Edmondson, Dr. Don Haas, Emily Hawbaker, Suzanne Kirk, Dr. Jennifer Maeng, Dr. Anne Mannarino, Dr. Juanita Jo Matkins, Dr. Jackie McDonnough, LoriAnn Pawlik.

