

# Open Science–Open Resources: Engage Adult Learners for 21st Century Skills

## *Summary and Objectives*

**Audience:** Adult Basic Education (ABE) instructors

**Summary:** “Open Science” will help science teachers find quality Open Educational Resources (OER) for the Adult Education (AE) classroom, evaluate them, and assess their effectiveness in meeting learning objectives. It will also provide teachers with ideas and resources for instructional strategies to introduce and engage adult students in learning science.

**Objectives:**

- identify an OER for instruction that aligns with science standards (e.g., Next Generation Science Standards);
- develop a list of learning goals expected from the OER selection;
- prepare a unit lesson plan using the TEAL Lesson Plan Builder;
- select an appropriate instructional strategy to incorporate an OER into science instruction; and
- evaluate student accomplishment and depth of content understanding using the OER in instruction and modify the lesson plan as needed.

## *Course Logistics*

**Format:** facilitated, asynchronous, online

**Estimated Completion Time:** 8 weeks for approximately 3 to 5 hours per week; 32 hours total

**Prerequisite course:** Open Your Classroom with Open Educational Resources

**Expectations:**

- complete the course assignments in a timely manner
- contribute to the online discussions through forums each week
- develop a lesson plan with OER for science instruction and share it with the other course participants
- submit the final course evaluation.

Participants must successfully complete course requirements to receive a certificate of completion.

## Course Topics

### Welcome and getting started activities

- *Video:* Course navigation tutorial
- *Presentation:* Course overview
- *Forum:* Introduce yourself and tell what you want to do!
- *Quiz:* Knowledge check
- *Activity & Forum:* Remix and revise OER fact sheet

### Introduction to using OER

- *Presentation:* Using OER for science instruction
- *Activity & Forum:* Value and limitations of OER in science instruction
- *Activity & Forum:* Align your vision for using OER to your practice

### Approaches to integrating OER into instruction

- *Presentation:* Approaches to integrating OER into science instruction
- *Forum:* Reflection on integrating OER approaches
- *Activity & Forum:* Open science with multimedia OER

### Set goals for the instructional use of OER

- *Presentation:* Setting goals for the instructional use of OER
- *Activity & Forum:* Practice setting goals for lessons using OER
- *Activity & Wiki:* Open Explorer

### Select OER for your lesson

- *Presentation:* Selecting OER for science instruction
- *Activity & Forum:* Select OER for your lesson
- *Activity:* Draft your open lesson plan

### Plan rich instruction with OER

- *Presentation:* Planning rich instruction with OER
- *Activity & Wiki:* Resources to support student use of OER
- *Activity & Forum:* Share draft lesson plan and reflect on planning process

### Teach and reflect on your open lesson

- *Reading:* Implement and evaluate instruction with OER
- *Activity & Forum:* Implementation
- *Activity & Forum:* Final reflection and future changes

**For information on course availability,  
contact the LINCS Professional Development Center at [pdcenter@lincs.ed.gov](mailto:pdcenter@lincs.ed.gov)**

<http://lincs.ed.gov>



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