

**Illuminating STEM Concepts and Principles
through the Context of Agriculture and Environmental Science**
OSU/EPSCoR STEM Experience
July 11-13

Oklahoma State University

July 11, 2016

Focus: Agriculture and Natural Resources

11:00-12:00 pm	Check-in, welcome, and camp overview and orientation
12:00-1:00 pm	Lunch in the Student Union
1:00-1:30 pm	Transition to Lake McMurry (East Recreation Area Bait Shop https://goo.gl/maps/9mt1w9vT4xG2)
1:20-1:40	Lake McMurry Welcome and Overview
1:40-2:00	Orientation-How to fly
2:00-2:15	Missions and Goals
2:30-5:00	Break into three groups of three and rotate through the five stations for 30 minutes each
	Group 1:
2:30-3:00	Flight Time
3:00-3:30	Review Data
3:30-4:00	Ground Truth (look at pictures and walk the land)
4:00-4:30	Drone Usage Research
4:30-5:00	Drone/Ag Application
	Group 2
2:30-3:00	Drone Usage Research
3:00-3:30	Drone/ Ag Application
3:30-4:00	Flight Time
4:00-4:30	Review Data
4:30-5:00	Ground Truth (look at pictures and walk the land)
	Group 3
2:30-3:00	Drone/Ag Application

3:00-3:30	Flight Time
3:30-4:00	Review Data
4:00-4:30	Ground Truth (look at pictures and walk the land)
4:30-5:00	Drone Usage
	All together
5:00-5:30	Wrap up/ debrief
5:30-6:30	Travel back to campus, prepare for dinner
6:30-7:30 pm	Dinner at Eskimo Joes
7:30– 8:30 pm	Recreation (Volleyball)
8:30-9:30	Wrap-up and Reflection

July 12, 2016

Focus: Environmental Science and Natural Resources

7:00-7:30 am	Breakfast Red Earth Breakfast in the Student Union
7:30-8:00 am	Travel to Botanical Gardens (use the Hwy 51 (6 th Street) entrance) and receive orientation for morning activities
8:00-10:00 am	Blue Thumb Program Part 1: Exploring the Secret Life of a Stream (Stream is located on the east side of the gardens)
10:00-12:00 pm	Blue Thumb Program Part 2, Investigating water quality and the relationship with aquatic life (Botanical Gardens Classroom)
12:00-1:30 pm	Travel to Student Union for Lunch
1:30-2:00 pm	Travel to USDA ARS Hydraulic Engineering Research Unit (HERL) (9501 W. Lakeview Stillwater, OK 74075)
2:00-4:00 pm	Tour USDA ARS Hydraulic Engineering Research Unit (HERL) including NSF REU Student Project using Flumes
4:00-4:30 pm.	Travel to campus
4:30-5:30 pm	Transition to rooms and prepare for dinner
5:30-6:45 pm	Dinner at Hideaway Pizza
7:00-7:45 pm	OSU Campus Tour

8:00-9:30 pm

Cowboy Scavenger Hunt

9:30-10:30 pm

Wrap-up and reflection

July 13, 2016

Final Reflection and Experience Evaluation

7:30-8:00 am

Breakfast

8:00-8:30 am

STEM Experience evaluation

8:30-9:00 am

Check-out and room inspection

9:00 am

Load vans and depart for Jones Academy