

K-12 Brainstorm of Ideas

(Underlined items are “over-arching” to be included in all activities)

1. On-line teacher reflective practice network
2. Increase experiential EL learning in and out of classroom (acequias) connect to IHE
3. Systems thinking for kids
4. Have students do similar research as EPSCoR researchers and portal
5. Follow up for teachers after EL workshop
6. On going assistance to teachers (knowledgeable TA in classroom)
7. Create teaching materials on energy-water and environment nexus on web
8. Grad student who knows inquiry, critical thinking etc. to support teachers
9. Weeklong energy training for students and elective water resources
10. Include cultural component in educational programs
11. Tax credit of lab GR tax (1%) to pay scientists to work with teachers (see program re: business) focused on EWE nexus
12. Systemic change in STEM pipeline; regional collaboration between IHEs and K-12 schools
13. Canned daylong field trips programs on EPSCoR research integrate in school programs/curriculum
14. ES/MS energy= water savings school/home → with freshman learning community + EPSCoR grad student → culture change get iPhone to post to web
15. Mentor and be mentored structure, especially UG → HS
16. Computational thinking and modeling
17. Include New Mexico decision makers reflective of local priorities
18. State wide as possible
19. Help teachers to teach kids outdoors, probably near schools
20. Resources for teachers to implement activities
21. How might k-12 connect to IHE and industry?
22. Include in public policy discussions- re: funding at state level
23. Get k-12 teacher input

White Papers to be developed

1. Engaging students in computer modeling of complex systems (understanding systems)
 - Writers: Irene Lee, JP Gonzales, Amy Tapia
2. “Real” science using data and data analysis; experimental learning
 - Writers: Bob Parmenter, Dave Simon, Paul Mauerma, JP Gonzales
3. Systems approach to EPSCoR design and implementation
 - Writers: Kurt Steinhaus, Amy Tapia
4. Enabling teachers to be more effective in classrooms
 - Writers: Terry Hansen, Susan Brown, Beck Kerr