**Padlet Notes**

**Issue Definition**

**Tara’s Group**

* Driving Question is just one piece of the Issue Definition. Also includes supporting questions which are where students can really direct the discussion.
* This is also the opportunity to bring focus to a broad concept.
* It is okay to be prescribed and directed by the teacher. Not the wild west and solely driven by the students.
* Classroom integration piece - issue is anchored to curriculum standards which makes it not an "add on" or something "extra."

**Kevin's Group**

* Age level is a consideration in issue investigation.
* Issues definition makes it relevant to students.
* Location should be considered in defining an issue. Be opportunistic to what's in your community.
* Making the connection to professionals who are doing research or addressing the issue is important.
* There are different "voices" to issues, can be difficult for students to know facts.

**Donna's Group**

* Must start LOCAL and work out to global (if you can) to be relevant.
* Must be meaningful to students, community, curriculum and standards.
* Fundamentally, issue definition is a spiraling process involving teachers and students.
* Teacher preparation is needed to understand potential issues and guide definition.

**Cindy’s Group**

* Empower students by educators asking questions (strategy for issue investigation).
* Gives shape to the entire process.
* Recognizing issues can be of any size.

**Amy's Group**

* Framework that you can use: options for questions, design, investigation/critical analysis (can start with field experience and then do issue definition).
* Identify biases/preconceived ideas.
* Can be based on grade level.
* Refined and defined throughout process.

**Shannon's Group**

* This looks different at different ages -- younger students will likely have more teacher support necessary.
* Finding the balance between teacher directed and student led/centered. (based on resources available to teacher, content, location, etc.). Teachers can manage this process without dictating by providing guideposts.

**Tom's Group**

* Students defining the issues will lead to critical thinking, stewardship and empathy.
* Make opportunities to build interdisciplinary collaboration that may require culture change among educators.

Outdoor Field Experiences

#### Kevin's Group

* Outdoor experience helps understanding of the issue.
* It builds connection to the natural world and contributes to stewardship.
* It's fun and there's power to a novel learning experience.
* It makes issues authentic and helps student understand their place in the world.

**Cindy’s Group**

* Make outdoor field experiences local and place-based (real world connection -- doing science scientists do -- spatial and temporal data).
* Interdisciplinary.
* Has to be integrated, not going outside for the sake of going outside.
* Must include time for experience and reflection.

**Donna's Group**

* Strive for plural.
* Planning and preparation (logistics, safety, etc.).
* It can take many forms (data collection, issue determination, etc.).
* The outdoor experience must be a character, not just a setting (does it pass the caterpillar test?).
* No forced march. Should build love of nature.
* Teacher PD needed and should spiral.

**Tara's Group**

* Makes MWEEs authentic
* Can be both at the school and an offsite location. And both are important. This is where ELPs can come in to ensure students are receiving onsite and offsite environmental experiences throughout ES, MS, and HS.
* Provides opportunity to be exposed to local places (parks, rivers, etc).
* Needs to be connected to the issue they are investigating.
* Does not have to be data collection but also is not just going outside to go outside. Purpose.
* Teachers need to feel comfortable going outside - PD for content, knowledge, as well as background info on their local issues (some teachers do not live in the school district where they work). Examples where teachers didn't even know there was a stream behind their school.

**Tom's Group**

* Provide equity of educational experiences for all students by providing systemic opportunities involving multiple stakeholders.
* Must include intentional delivery of effort integrated into the required curriculum.
* Experiences should involve a continuum of off-campus and hyper-local outdoor opportunities.

**Amy's Group**

* Plan activities that can only be done outdoors.
* Use best principles of outdoor education.
* Inspire sense of wonder and connection with nature.
* Activities that stimulate all of the senses and learning styles.
* Intentional, well-planned, and grounded in best practices.

**Shannon's Group**

* How do we make our school ground experiences exciting like field trips? Great example from Delaware of making an authentic outdoor classroom.
* Models real science -- AUTHENTIC experience.
* Different learners will connect with outdoor learning when they don't with classroom learning. Don't keep problem kids away.

**Synthesis and Conclusions**

**Cindy’s Group**

* Maybe it should be called synthesis, analysis and communication (OR communication could be a 5th element -- it crosses all).
* Claim, evidence, reasoning.
* Interdisciplinary meaning and understanding.
* Synthesis and Conclusion is a subset of all three other elements.

**Tara's Group**

* The sharing piece is important- it incorporates public speaking skills and even just building the ability to express what happened (which a lot of students don't know how to do).
* This element occurs throughout the MWEE. It is not the last piece in a chronological model. Ties together.
* Easy, obvious ties to language arts skills in order to put words to the process.

**Shannon's Group**

* Needs to have some communication element.
* This is where bridges and connections are made.
* Happens throughout and looks different daily versus unit wide.
* Shouldn't just be a synthesis of the results, but rather evaluating this against other experiences, published literature, etc.
* Should involve self-reflection. What did we learn?

**Amy's Group**

* Allow students to form own conclusions.
* Explain rationale/how they answered question.
* Form additional questions.
* Different students can reach different conclusions.
* Understand all sides of an issue.
* Encourage sharing of experience with others.
* Formulate actions to make improvements or celebrate achievements.
* Give students opportunities to voice opinions and make informed decisions.
* Communication.
* Sharing experience with others.

**Tom's Group**

* Now where can I go?
* This is not an end. Synthesis and conclusions can inform all other parts of the MWEE or a new MWEE cycle.

**Donna's Group**

* Ongoing and spiraling.
* Own your/the data.
* Share with audience beyond your class.
* Teacher PD needed and should spiral.

**Kevin's Group**

* Does not necessarily answer a question, but could lead to other questions.
* The ideal is that this in ongoing, not just culminating.
* Heavily tied to issue definition because issues take into account information.
* Should lead to a personal action.
* Is bolstered and richer by involving other disciplines.

**Action Projects**

**Kevin's Group**

* Action Projects don't have to be an end point.
* Student projects necessitate partnerships.
* Facilities staff training/partnering is critical.
* Cross curricular alignment and investment will help with "out of school time."
* Action doesn't need to be off campus.
* These should capitalize on local resources and be opportunistic.

**Tara's Group**

* Supports use of interdisciplinary skills and standards (beyond science).
* Connection to careers.
* Real-world application.
* Sense of control, ability to impact for students.
* More than the physical action, process of getting there.

**Amy's group**

* Personal/relevant/ ownership for students.
* Solution-focused.
* Makes project full circle.
* Meaningful.
* Local stakeholders - students, school, community, elected officials.
* Best at the end.
* Can overlap with outdoor experience.

**Tom's Group**

* Broadening diversity of projects to promote opportunities for continuity and depth.
* Involving community leaders,  partners, members and businesses.

**Shannon's Group**

* Action Projects can occur anytime AFTER issue definition/investigation, but not before.
* About giving kids control of taking action for something they care about. Important to be connected to the issue so they know WHY they are doing it.
* This is a great place to include media, communities, administrators to make your project shine (and get $$).

**Earth Force Initial Findings**

* \*\* Paradigm shift. \*\*
* Partners are good at content, but not necessarily good at pedagogy (i.e. getting teachers to project based education.
* More disconnected the issue def is from the action, the less likely they get to action project.
* If not integrated, they only do action projects with superhero teachers.
* They don't know the importance of action projects. They think you are just forcing them to do something extra.
* Further in orientation the action is from inquiry, the more other barriers crop up and impede action projects.

**Cindy Duncan**

* 5Es + empowerment (so what) and employment (engage, explore, explain, elaborate, evaluate).
* Actions empower kids -- once they've done an action, they feel like they can do something -- agents of change.
* Shouldn't be the endpoint -- action can be a starting point for a MWEE.
* Develop transferable skills.

**Donna's Group**

* Admin/facilities support required.
* Pay attention to logistics.
* Important to have good relationships with partners/outside agencies.
* How do you apply for a grant if waiting for students to determine action project?
* Teacher PD needed and should spiral.

**Challenges and Barriers to Implementing MWEEs**

**Tara's Group**

* Pre-service Teachers are not trained in teaching outdoors.
* Teacher turnover.
* Always go right to science, do not see nearly enough multidisciplinary MWEEs.
* Some field-based providers have difficulty directly communicating with teachers (have to go through admins) and/or getting permission.
* Teachers taking on MWEE elements - continually hear from providers that they have worked with teachers for years and yet still there are substantial amounts that don't seem willing to take on the AP element (for example).
* Some of these issues are politically controversial.

**Tom's Group**

* Powerful need for PD to build confidence of teachers/facilitators/administrators that can empower students.
* Difficulty of logistics and systems are needed for support.

**Cindy’s Group**

* Funding.
* Fear of change.
* Teacher training to improve comfort level, with questioning, going outside, etc...
* Trying to have individual students develop projects can be overwhelming -- allow teachers to try different approaches (sometimes teachers have 150 students).
* Teachers need models.
* Time
* MWEEs need to be doable for the teacher

**Cindy Duncan (part 2. not barriers, but MWEE overalls) we just can't stop!**

* MWEEs need to be age appropriate, building skills, empowering students, It is OK not be the expert -- model lifetime learning.
* MWEEs can start anywhere.
* Develop questioning strategies.

**Amy's Group**

* Resources.
* Time.
* Doable scale.
* Funding parameters especially for systemic projects.
* Spreading the word to people who aren't familiar.
* Getting teachers to realize that things they are doing already and close to being MWEEs.
* How to make them interdisciplinary.