**Make an Impact Workshop**

**Project Planning Template**

***The Goal:*** To create a plan for implementing (or improving upon) a citizen-science based project between researchers conducting research in/near a community, a teacher based in that community, and interested community members. The project aims to engage local students in local research to increase their awareness of STEM (Science, Technology, Engineering, and Math) education and opportunities.

So.. where do we start…?

**Needs Assessment**

The Needs Assessment should include your personal vision for your teaching/research/community and address your professional goals. It is an exploratory exercise, meant to contemplate and predict the ways that creating this project will help you make desired changes in teaching/science methods and help you grow professionally.

**Your Personal Vision**

* What is my personal vision for this project?
* What are the realities faced in the classroom/research/community that may help or hinder my vision?
* What are realistic ways this vision can be shared with students?
* What are your personal and professional strengths and skills that you bring to the project?

**Collaborators and Contacts**

* Are there researchers, teachers, or community members, etc. you are already in contact with? Who can help you make those contacts, or strengthen existing ones?
* What assets do you see coming from people who may work with you on this project?
* List some action items on how to reach out to collaborators. Ask other teachers or researchers in your group for tips and tricks about about to connect with educators, or how to find out who does research in your area, and how to identify and contact interested community members.

**Resources**

* What additional resources are available to your project (existing citizen science or connection to classrooms/research, funding, volunteers, in-kind support, etc.)?
* What are the challenges that you may encounter with your research, teaching, community?
* Based on your current resources, are you ready to implement this vision or move your project forward?? (What do you need? - funding, volunteers, in-kind support, etc.)

**Planning**

This is where the discussion becomes a bit bigger than just you. During our breakout sessions, utilize the perspectives in the room to help you build a professional plan. You may be working with people in this room on the same project, or implementation happens in separate communities. Use this workshop collaboration time to develop an adaptive management strategy; create a framework with wiggle room that allows for success.

* **Establishing the Basics**
Write out a professional vision and mission in regards this project. Does this differ from your personal vision? Is it more logical, pragmatic, and realistic? This is the beginning of your public story on the project.
* What is the major focus of the project? What is the relevant science discipline to focus on? What are the learning goals for your school/classroom? What is the relevance for your community?
* What are the priorities to be addressed in the implementation of this project? This can be based on what your team sees as the needs in research, education, and communities.
* What are the timeframes that people are working on? What are the science field dates? How available are you, in communities, during your research season? If you are a teacher, do you leave for a particular season?

* How can you connect locally? Are there partners to leverage that provide other windows of availability?

**Cultural Relevance**

* How will you ensure that the project you implement will be culturally-relevant or appropriate to your target audience whether it’s ethnicity, age, gender, etc.?
* Does the project or goals fit the values of the community?
* Does your vision take into account the community’s values and traditions that affect how its citizens and the targeted group regard local science and research efforts?
* What has been done in like-communities in the past? Have over projects shown positive results in communities with similar cultural attributes?

**Connection to Research and Education Goals:**

Based on your own perspective on the project and discussions with workshop team members:

* What specific content in STEM do I want to focus on?
* Will students develop skills for investigating problems, collecting data, or making observations on their own and with others?
* Will students see the relationship between STEM content they learn in school and what they may encounter in everyday life?
* How will you recognize that STEM understanding is actually produced?
* What STEM career opportunities exist in local communities or within Alaska?
* How will I promote scientific literacy among all students?

**Teaching/Learning Goals:**

* What are your goals for student learning, in connection to the potential science ideas/concepts? Can you link these goals to National and Local Standards or your own Needs Assessment?
* Why do you consider this major idea/concept to be important and appropriate for students to learn about?
* What challenges or misconceptions are inherent in teaching this idea/concept to students?
* How can you design instruction and activities to meet these challenges?

**Citizen Science Activities:**

* What aspects of your research/teaching are already in line with the citizen science framework?
* Using the what we have learned about teaching methods and citizen science, describe activities students could be involved in as they engage in the concept/major idea.
* How will activities be sequenced and organized?
* What type of resources/background information is needed to develop the concept? This may include content background, websites, etc.
* What safety procedures need to be considered during the implementation of the activities? Will you (or others) be visiting a field site?
* Where can data be collected? What does the data look like?
* How can data be analyzed? What tools do you need to accomplish this?
* How can we be sure that citizen science data is reliable and accurate?
* What measures can be put in place to be sure that the student data is meaningful and actually used in rigorous science and research?
* Any additional activities that compliment citizen science activities?
* Describe the reach, frequency/intensity, duration of activities, practices, and products used in the project.

**Evaluation:**

* What criteria will be used to assess student learning during and following the implementation plan?
* What short-term and long-term outcomes could you expect?
* How will you evaluate your own professional growth and meeting your own personal/professional needs and vision with this project?
* Include examples of assessment instruments. This could include rubrics, quizzes, tests, etc.,
* How will you know if your goals have been accomplished? What will you do if your goals are not met?

**What can ARCUS do?**

Our organizational goal for The Arctic in the Classroom program and this workshop, is to best serve you as leaders in science and education to reach students and communities through citizen science.

* What can ARCUS do to help?
* What can you do on your own and would it be enhanced with the help of ARCUS?
* What networks does ARCUS have that you can utilize?
* If “the sky is the limit” what do you want to see happen in your communities and research?
* Is there a specific person, organization, or institution that you need help connecting to?