



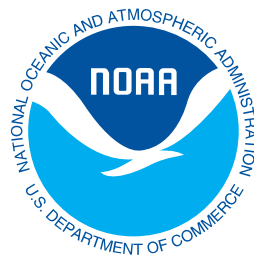
**Chesapeake Bay Program**  
*Science. Restoration. Partnership.*

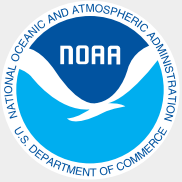
# Meaningful Watershed Education Experience

## DISTANCE LEARNING SUPPLEMENT



[baybackpack.com](http://baybackpack.com)  
[EarthForceResources.org](http://EarthForceResources.org)





## Preface

Welcome to the Distance Learning Supplement to the Meaningful Watershed Education Experience (MWEE). This supplementary document is designed to help educators facilitating MWEEs transition to distance learning environments.

As we write this guide, the U.S. is in the middle of a pandemic that is striking us much harder than many of us had anticipated. Perhaps no group has felt the disruption of their work more than educators.

We offer this guide to support you during this time of great change in education. We don't know how long we will continue to face this challenge, but we are here to help where we can.

This guide reflects expertise from partners and educators from across the country. We are making this Supplemental Guide available for free to help you continue to do MWEEs in your classroom.

This guide is but a small percentage of the resources Earth Force has that compliment MWEEs. All are available to you on our website ([earthforceresources.org](http://earthforceresources.org)).

If you have any questions, please feel free to contact us [earthforce@earthforce.org](mailto:earthforce@earthforce.org).

Sincerely,

A handwritten signature in black ink, appearing to read 'Vince'.

Vince Meldrum, Earth Force President/CEO

# Youth-Adult Partnerships

Whether working in a distance learning environment or in a classroom setting, Youth-Adult Partnerships are the cornerstone of a successful MWEE. Because they are so central to our process and what we believe, it is important to highlight outside of the MWEE Elements how youth voice can occur in distance learning settings.



Create and revisit a [virtual class respect agreement](#) to remind students of educator commitments, as well as their own, and emphasize components of partnership.



Assign students to committees, with specific roles & tasks. This can be a great way to keep students engaged and part of the team. It also helps build responsibility and offers opportunities for youth to work together to accomplish meaningful tasks.



Use virtual question boards to allow space for students to openly question. There are several highlighted in this supplement.



Offer students the option to choose a method for assessment. Sharing power in this way is a great learning opportunity for students. Additionally, having students keep a portfolio allows them to personalize their learning and share that with others.



Ask students to submit reflections on the project. It is a great way to check in with students often and better understand their learning journey. Virtual portfolio options could include Google Slides, Google Sites, or even written and drawn portfolios that are shared via photos.



Use Check-Ins & Check-Outs at the beginning and end of each session to hear from every student and get a sense of who is engaged, struggling, or otherwise.



**Remember to allow students to choose their own topics of interest, inquiry, and research when possible. By granting this power to students you can prompt engagement and voice, especially in virtual classrooms. Use virtual decision making & voting tools to incorporate everyone's voice in class decisions. Earth Force has [Youth-Adult Partnership](#) tools and processes that can facilitate this.**

# Issue Definition



Issue Definition can look essentially the same as in the classroom. Students work together to explore an environmental issue by conducting background research and investigations. What will change is how those conversations and sharing of information takes place. We recommend that you find some online applications that support discussion and decision making to make the process more interactive for your students.

The following tools can help take this discussion and voting process to a digital space:



Fun Retro and Jamboard can be used as a brainstorming tool to address Driving Questions. This allows students to think and add their responses to a community tool that all can see and discuss.

**Dotstorming:** Dotstorming allows groups to easily collaborate on a topic and come to decisions as a group. It uses dot voting which is a quick and simple method for prioritizing a list of options. It creates a sense of engagement and allows participants to see the decision process in action and understand how the final choice was made.



Earth Force: Issue Selection Grid

	A	B	C	D	E	F	G
1			ISSUES				
2			Issue 1: Sample Issue	Issue 2: Sample Issue	Issue 3: Sample Issue	Issue 4: Sample Issue	Issue 5: Sample Issue
3	CRITERIA		Criteria 1:				
4			Criteria 2:				
5			Criteria 3:				
6			Criteria 4:				
7							
8		Total Score for Each Issue:	0	0	0	0	0
9							
10							

We have made a specialized version of our Issue Selection Grid available through Google Sheets. This sheet is a useful tool to support criteria-based decision-making in a virtual environment. It works essentially the same as the in-class version and allows all students to voice their own opinions.

# Outdoor Experiences



Issue Investigation

As an educator familiar with MWEEs, you recognize that it is important to establish the community boundaries for your experience. In a classroom this is straight forward. In a virtual setting this can be a bit more complex, as students will likely be conducting individual outdoor experiences and exploration without your direct supervision.

**Begin by reviewing the feasibility of different types of outdoor investigations/activities.** Do your students have safe access to the outdoors from their homes? Do they live in a community where they can explore their neighborhoods? For some, outdoor experiences will have to be something they can do from their window, others will be able to move about in their neighborhood or community. To help you get started we created three investigations specifically for a distance learning environment that cover the following topics:



**Water Quality** – Designed for instances where students have access to outside spaces and near stream or river.



**Waste** – Designed for instances where students are conducting investigations in their homes.



**Flooding** – Designed for instances where students are conducting investigations in their communities and can move around their neighborhoods.

**Once students have conducted their investigations, bring them together virtually to combine their data and discuss what they have learned.** The goal is for students to analyze the data they have found and look for trends in the concerns they have identified.

Finally, after students have combined their data and can identify issues, it is time to find the root cause. We have a [Root Cause Tree](#) tool available in a fillable PDF format.

# Synthesis and Conclusions



**Synthesis and Conclusions is all about synthesizing and applying evidence from student’s investigations and conveying that to others. This work can be done asynchronously, with a video presentation, or via an online video platform.**

**Consider the following tips and resources to help students synthesize and conclude.**

When students do not have the capacity to synthesize research and make conclusions in person, emphasize community knowledge and online tools. Our communities represent a wealth of information. Students can interview and/or survey their parents, peers, and other community members about their selected issue to draw conclusions.

Use a video platform (Zoom, Google Meet, Microsoft Teams, etc.) to bring the class together to debrief the major research and investigatory findings. This allows all participants to move forward with the collective knowledge, not just what they experienced themselves.



You can vote using the “heads down, thumbs up” method, a poll within your video platform, a Google Form or [this digital criteria based decision making tool](#) during the video call.

Once students have generated a claim based on their investigations, allow students to self-reflect on how they want to address it. Have them submit an essay, pictures, etc. to you for approval. This also allows you to group students together who have similar ideas in small teams. Utilizing breakout rooms on video platforms for small group discussions can be a good way to ensure all voices are heard before having a large group discussion.



**Looking for a space to share with a larger community? Consider the following virtual opportunities.**

- [Earth Force Summits](#) (eligibility depending on geographic location)
- A local government meeting (city council, school board, etc.)
- National Science Teachers Association (NSTA)
- Your state’s teacher association
- North American Association of Environmental Education (NAAEE)
- [GLOBE](#)

# Stewardship & Civic Action



It's now time for students to plan and carry out an action project. This is where the focus on civic engagement (**Asking for Change**) becomes an advantage in the distance learning environment. Projects that require students to be together (e.g., plantings, clean-ups) are less feasible now, but projects that focus on changing community policies and practices are perfect for a distance learning environment.

Projects that change community polices or practices can be achieved without students having to meet in person. Civic action projects focus on students reaching out to people who are responsible for specific issues and requesting they make a change. For instance, if your students are interested in improving stormwater management, they can identify specific problems in the community, research those issues, and then reach out to local regulators to request a specific change to the local stormwater plan. All of that can be done without leaving their home.

If you prefer working in a common online space, there are online tools to help you manage student projects digitally. One we like is:



◀ **Trello:** An online team collaboration tool where committees and teams can be formed, project tasks can be managed, and information can be shared and organized. Great for virtual project management.

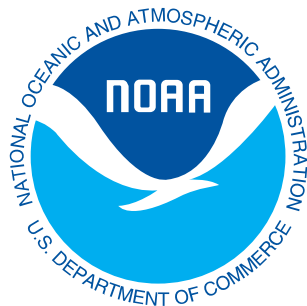
We have created committee sheets that can be downloaded and filled out by students. They are built to help small groups execute their strategy. They can be found at [earthforceresources.org/act-planning-and-taking-action](http://earthforceresources.org/act-planning-and-taking-action).



Thanks to the NOAA B-WET program, it is possible for Earth Force to create these materials.  
Thank You for your support!

A special thanks to all of the educators who do student-led MWEEs in their classrooms each year.

**You are our heroes!**



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