



2023 Environmental Literacy Summit

Virginia Environmental Literacy Update

Building Green Career Pathways

Guidance Documents:

- [CTE Course Modules](#) with an integrated module on Explore Career Connections within each career course.
- Relevant [Career Clusters](#) include
 - Agriculture, Food & Natural Resources
 - Architecture and Construction
 - Energy
 - Science, Technology, Engineering and Mathematics
- [Virginia Community College System/ Career Pathways](#)

Accomplishments:

- Continued revisionment of career clusters to reflect current workforce practices and to incorporate current career possibilities.
- Virginia has 21 [Career & Technical Education STEM Academies](#). These programs expand students' options to acquire STEM knowledge, skills, and credentials to prepare them for high-demand and high-skills careers in a variety of industries, including some green careers.

Opportunities:

- Opportunity to construct a bank/informational support on internships and apprenticeships to inform students on green pathways and provide opportunities for on site career exploration.
- [Green Job Tax Credit](#)
- Individual school divisions have the ability to grow their own internship and apprentice programs through community and business partnerships

Key Partnerships (Who Needs to be at the table):

- VAAE, businesses, organizations, VDOE CTE, institutes of higher education, the military, CTE people at the school district level, Apprenticeship programs,

Challenges:

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Major Funding Programs:

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Key Takeaways:

- Our model is very localized
- Not seeing any representation of crabbers, fisherman, etc. in the CTE space
- Businesses need to really tell schools what is needed
- How do we put CTE language in all that we do - this is a sustainable model- green careers is everything
- Really need to look at Delaware model
- PCWS developed an Elit module for teachers

Action Step

- Connect to Dan from Delaware - Cassie
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[Exemplars \(slides\)](#)**High Impact Actions for Sustainable Schools****Guidance Documents:**

- Chesapeake Bay Watershed Agreement - [Environmental Literacy Goal](#)
- [VDOE Healthy Buildings Site](#)
- [VDOE Sustainable Design and Energy Management Site](#)
- USED Green Ribbon Schools and Sustainable Divisions (link to site)
- [Virginia's High-Performance Buildings Act](#) (HB2001)

Accomplishments:

- Nine Prince William County public schools recognized as some of the nation's healthiest schools: [America's Healthiest Schools 2023 | Alliance for a Healthier Generation](#)
- The [2020 Health Standards of Learning](#) include a theme focused on Community/Environmental Health. This K-12 scaffolded strand guides instruction on reduction of resource use, reuse, recycling, or repurposing of items and materials at home, in one's community, and in the classroom.

Opportunities:

- VDOE School Construction Assistance Grant: \$450 million in competitive grants for new school construction, additions, and building renovations.
- EnergyStar programs
- [Project Learning Tree Green Schools program](#) VDOE highlights this program as a way to help become a US Green Ribbon School
- [Virginia Naturally School Recognition Program](#) Recognizes schools with exemplary environmental literacy education instruction
- USED Green Ribbon School awards; Virginia supports applications with information about Healthy Buildings, School Nutrition, Physical Education, and Science Standards of Learning; See [Virginia Green Ribbon Schools](#)

Key Partnerships

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Challenges:

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Major Funding Programs:

- VDOE School Construction Assistance Grant: \$450 million in competitive grants for new school construction, additions, and building renovations.
- [EPA EE grant](#)
- [G3 Grant program](#)

[Exemplars \(slides\)](#)

Climate Change

State and/or National Guidance Documents (i.e. climate action plans, resilience and adaptation plans, or energy plans):

- Executive Order (white house)
- [Climate Change and the 2018 Science Standards of Learning](#): VDOE
- [VA High Performance Buildings Act - 2021](#)

Accomplishments:

- Environmental Issues: Climate Change and its Impacts on Virginia asynchronous courses for K-12 educators (teachers, leaders, etc): VDOE

Opportunities for environmental literacy work to support climate action, resilience, or energy goals:

- Support implementation of Virginia Science Standards of Learning and revision of the science standards (2023-24)
- Provide feedback on the standards currently in development and the revised standards
- Participate in the [Eastern Shore of Virginia Climate Equity Project](#), a \$5 million National Science Foundation project that aims to better understand how a changing climate affects the lives of Eastern Shore Residents and builds capacity in coastal VA for enhanced climate adaptation and resilience.

Key Partnerships

- Virginia Environmental Network (to include state agencies, environmental organizations)

Challenges:

- Political climate
- Competing state initiatives on K-12 education and demands on instructional time (grades K-8)

Major Funding Programs:

- [EPA EE grant](#)

[Exemplars \(slides\)](#)

Student Environmental Literacy (MWEE)

Guidance Documents:

- 2022 ELIT Report - Virginia

Accomplishments:

- MWEEs integrated into the preface of the 2018 *Science Standards of Learning* through the 5Cs
- VDOE Taking Kids Outside- two sustained PD cohorts for K-12 educators (200 teachers)
- Teacher professional learning on environmental issues (sustained asynchronous PD); VDOE modules
 - Virginia Forests: Ecology and Management
 - Energy Use in Virginia
 - Climate Change and its Impacts in Virginia
 - Impact of Invasive Species in Virginia
- # school divisions reporting systemic MWEE in the various grade bands—**summarize ELIT Tool data**
- VA Science Education Leadership Association (VSELA) spring 2023 meeting focus was Environmental Literacy and MWEE; 70 science education leaders participated in two model MWEE experiences and drafted ELIT plans for their respective school divisions

Opportunities:

- [Virginia Naturally Recognition Program, VA Department of Wildlife Resources](#)

Key Partnerships:

- VAAE, EE providers, state agencies, higher education

Challenges:

- Bus transportation (lack of bus drivers)
- Substitute teachers/school staffing
- Funding
- Competing state initiatives on K-12 education and demands on instructional time (grades K-8)

Major Funding Programs:

- NOAA C.B. B-WET
- Virginia's C.B. Restoration Fund
- Dominion Energy Grants

[Exemplars \(slides\)](#)

[Summary Data, ELIT Tool 2022](#)

State Network Updates

Virginia Environmental Literacy Network (VEN):

- VDOE Region One school division-EE partnership hub launched
- Provided training for VA State Park Outreach Rangers about partnering with schools
- Statewide ELit Strategic Planning in progress

Virginia Resource Use Education Council (VRUEC):

- VRUEC members are actively engaged in developing our [VA Environmental Literacy Network](#)

Virginia Association of Environmental Education (VAEE):

- [Annual Conference](#)
- Engagement in [VA Environmental Network](#)
- Certification is doing well
- Currently focused on capacity building (funding, outreach, etc)

For questions, please contact Candace Lutzow-Felling: cjl6b@virginia.edu or Anne Petersen: Anne.petersen@doe.virginia.gov or Bianca Myrick: Bianca@virginiaee.org

Other notes:

Governor [EE excellence](#)

[Environmental Symposium](#)

[Canva flowchart](#)

EL Summit Notes

Breakout 1 (Green Careers)

- Need these people in the room:
 - VDOE CTE representation (Judd might be able to make a connection)
 - Military
 - Community Colleges
 - Private groups (new college institutes)
 - Orgs that offer apprenticeships
 - If school divisions and states aren't prioritizing CTE (and green jobs) then why are we focusing on this?
 - Districts are pushing college still. There is a mindset that needs to change at the district level
 - We need businesses involved to tell the schools what they need in terms of workforce. That is what is going to push on schools.
 - Waterpeople, farmers – where are these opportunities for students to engage
 - Sustainability mindset (ethics?) might be similar to environmental literacy competencies
 - We need to find the places that make sense, maybe that are the low hanging fruit
 - CTE cluster - where is the toolkit or something that talks about the key environmental topics that can tie into these clusters
 - Post-secondary education – there is good to be a big push in the next leg session around what the obligations of the state is related to propping up higher education
 - Consensus around Dan's work with Advance CTE and opportunity to adopt in VA
 - How does CTE get integrated into division EL plans?
 - Jeanne - they looked at this in their EL plan development, and they developed a module in their online learning management system for all CTE 2 day to 1 week on environmental literacy (there is a capstone project that then makes the connection to the actual career pathway)
 - DOE has offered PD but sometimes it's not really what the teachers need.
 - **An action VA delegation might consider: can we create a simple module on EL that could be distributed to all CTE teachers? Would need to work with the right person at DOE.**
 - CTE in Chesterfield is quite robust. Might be a good place to start.
 - This is directly tied to VEN's work
 - **Cassi is going to connect with Dan H. from Advance CTE**
 - Go Virginia – we need to partner with them
 - Amazon has done the best job at pushing back on the dept of ed than anyone. They are telling DOE what they need. 2 year degrees rather than 4 year degrees
 - Workforce development board –
 - Secretary of Labor – not using environment as a context
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Breakout 2 (High Impact Actions for Sustainable Schools)

- Courtney told Cassi that there is an opportunity for VA Naturally to re-do a certification program (needs to be reevaluated)
 - Federal agencies are more of partners. Guidance, support, and direction. They help the divisions to get what they want done, done.
 - In some divisions there is a huge opportunity for student groups to advocate for high impact action changes. Students also want to be involved in rolling these efforts out. But in some divisions there just aren't active student groups so we can't rely on that as the main space for making change. School board is where all of the changes are going to be made.
 - More school districts need someone with a "hat" of sustainability and environmental literacy coordinator. The big districts have them (Louden, Fairfax, Prince William, Arlington, Virginia Beach)
 - Need two sustainability focused people at each school divisions – one situated in facilities and one situated in the instruction side of the house and they MUST collaborate and work together.
 - Dominion Energy, other for profit companies – opportunity for collaboration. Need to speak to the business values and what they are looking for
 - Is there a mandate for schools to report on their energy usage?
 - School buses can be used during battery storage during peak hours
 - Too many actors on here that don't impact schools
 - Superintendents are super influential
 - **DCR plans to share out all of the funding resources available in Green Careers + High Impact Actions for SS on their website (we should also do this on Bay Backpack)**
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Final State Breakout

- MWEE isn't enough (3 experiences over a students experience isn't going to get us there) BUT if we can't get there yet we should double down and focus on it
- MWEEs into new VA SOLs
- We need to get climate action plans at the division level - extends it beyond one single person.
- Mitigation (political hot potato) adaptation is more palatable in VA. Darryl - can talk about flooding all day but it's not worth going there with leadership about causes (climate change)
- Shifting priorities to communication efforts to meet some of our different stakeholders where they are. Particularly on climate change
- VA Governor is rolling back vehicle emissions standards
- **ELit Planning - coordinators at each division might be really difficult (trying to really highlight which are the few things that we need) but if divisions make a plan then they can decide whether they need to staff that or not**
- SWCD / state parks can help because they are in districts across the state
- 1/3 of SWCD district have and environmental ed person; 1/3 have someone who does a bit of EE; 1/3 have no education people

- **Matching school divisions with community partners. Building relationships and creating community around it. This can fit into the EL plan.**
- Green Career focused MWEEs in high school – there might be more \$\$ to fund this kind of work.
- Nature clarity –
- Virginia Public Media – as an opportunity to message and communicate about this.
- State environmental agencies should be encouraged to have paid internships (where are there grant programs to support this). Governor's fellows - none of them are environmental right now
 - Virginia Space Grant Consortium has a great model for getting a ton of \$\$ for interns.
- If there is climate in this new EL Goal, before 2025, VA will not support this.
- Lots of \$\$ going into schools right now related to work-based learning.

Final Summary:

- **Workforce really resonated. VA delegation would like to explore the idea to create a simple module on EL that could be distributed to all CTE leaders and used in ALL career pathways, building on the idea that all jobs should be green jobs. We are also interested in thinking about Green Career focused MWEE especially in the HS level**
- **Sustainable schools is still an area where we don't feel like we have all of the right people at the table. We are already coming around the idea of needing an EL point of contact on the curriculum side of things at each division, and we'd also like to advocate for the need to have a similar role on the facilities side of the house and making sure these people are in regular collaboration.**
- **We know that funding for positions like this is going to be difficult, so to catalyze that we are interested in seeing a focus on developing EL Plans at the district level and then let districts figure out how if at all they want to resource that.**
- **Overall we are realizing how we'll need to integrate these ideas into our networks (VEN) and into the new EL Strategic plan that DCR is leading the development of.**