(Adult &) Youth Voices for Climate Readiness at School

In this session participants will learn about transformation of schools for climate readiness in three areas: (1) *mitigation* or How can school reduce their carbon footprint e.g., around energy, transportation, and food?, (2) *adaptation* or How can school become more resilient to climate change threats e.g., through virtual learning?, and (3) *education* or How can school prepare students for a more sustainable future e.g., during career education, science, social studies?

Youth Voices for Climate Readiness in School

October 13th, 2023

2023 Michigan Afterschool Collaborative – Leadership Summit

Good Morning and welcome to our session, Youth Voices for Climate Readiness in School. I'm Charles Smith, managing consultant at QTurn and I'll be joined by my colleague, Sally Smith in the presentation today. I want to start by saying that while this is an area of personal interest, its new to us as a area of professional interest and we suggested this session just because we believe its perhaps the most important thing we could be talking about right now and Michigan, as we will see later, is pretty far behind on this content in education.

Our topic is about readiness of schools – but it's the same thing for all organizations that serve children and families – and for 21st CCLC, you all are in schools with school children and often with school teachers. We think this would be a terrific area to do youth voice work because pretty much everyone who is doing this work sees that youth voice is a key component and purpose in the effort to make schools climate ready.

QTurn Introduction

- Build Quality Improvement Systems (QIS) around valid measures of quality and socio-emotional skill change

- Update quality standards to include practices that are "attachment aware and trauma-informed" (AATI)

- Develop methodology that is more sensitive to afterschool impact than "gold standard" experimental designs

- Produce citizen science

A little bit about QTurn – we are small consulting and evaluation organization working in the out-of-school time field. Our mission is to build quality improvement systems based on valid measures of quality and socio-emotional learning. For the past several years our focus has been on updating the OST quality standards for trauma-informed practice. I personally wrote the most widely used set of quality standards in the field and these are gaps I've been hoping to fill for a couple of decades. Because we have developed a new generation of measures, we also work on the methodology to help generate evidence about OST program impact. Because most of the research community is trapped in a certain way of seeing things – experimental designs and randomized trials – we hope to do citizen science with our clients – but the traditional ways are not going to get us there.

Meeting Objectives

1 Discuss how authentic youth voice on climate readiness starts by encouraging adult voice

2 Learn three areas of focus for school climate readiness
- Mitigation
- Adaptation
- Teaching and Learning

3 Share adult interests/experience and youth possibilities in afterschool programs

Our meeting objectives are to first set the stage with a discussion of the challenge we are trying to address and how youth and adult voice fits into that. That will take about 20 minutes. Then we're going to run through three areas of climate readiness action that are model used by my most experts and schools doing this work: Mitigation, Adaptation, Teaching and Learning.. Finally, at a couple of points we're going to ask you all to share your thoughts and experiences on the matter.

Before we get started…

Scan our QR code to receive the resource materials for this presentation!

Before we started, these materials are available in an abbreviated hard copy and at our website if you follow the QR code. We'll also have a 20 minute video of this presentation if you want to have staff or school principal or other partners view it.

If you need to make the case

- IPCC report – IPCC_AR6_SYR_SPM.pdf
- Nature Conservancy article with links - The Latest IPCC Report: What is it and why does it matter? (nature.org)

- Katherine Hayhoe – linked in - (99+) LinkedIn

If you are still trying to convince yourself that climate change is real or that it is not the most dangerous peril currently facing humanity, then this is the wrong session for you. We're starting from the science here and this presentation is designed to share the best most scientifically grounded material we could find on helping schools become climate ready.

If you want to convince yourself or others here are the best tools to understanding what's happening and the nature of the threat: The IPCC is the Intergovnermental Panel on Climate Change and these folks are the global consensus on climate science. The full report is pretty technical but the summary for policy makers is more readable. The Nature Conservancy has a good translation of the IPCC report for non-scientists. Also, Katherine Hayhoe is a great person to google.

This morning, October 12, a lead article in the New York Times was entitled: Heat, High Water, Hurricanes: Schools are not ready for climate change.
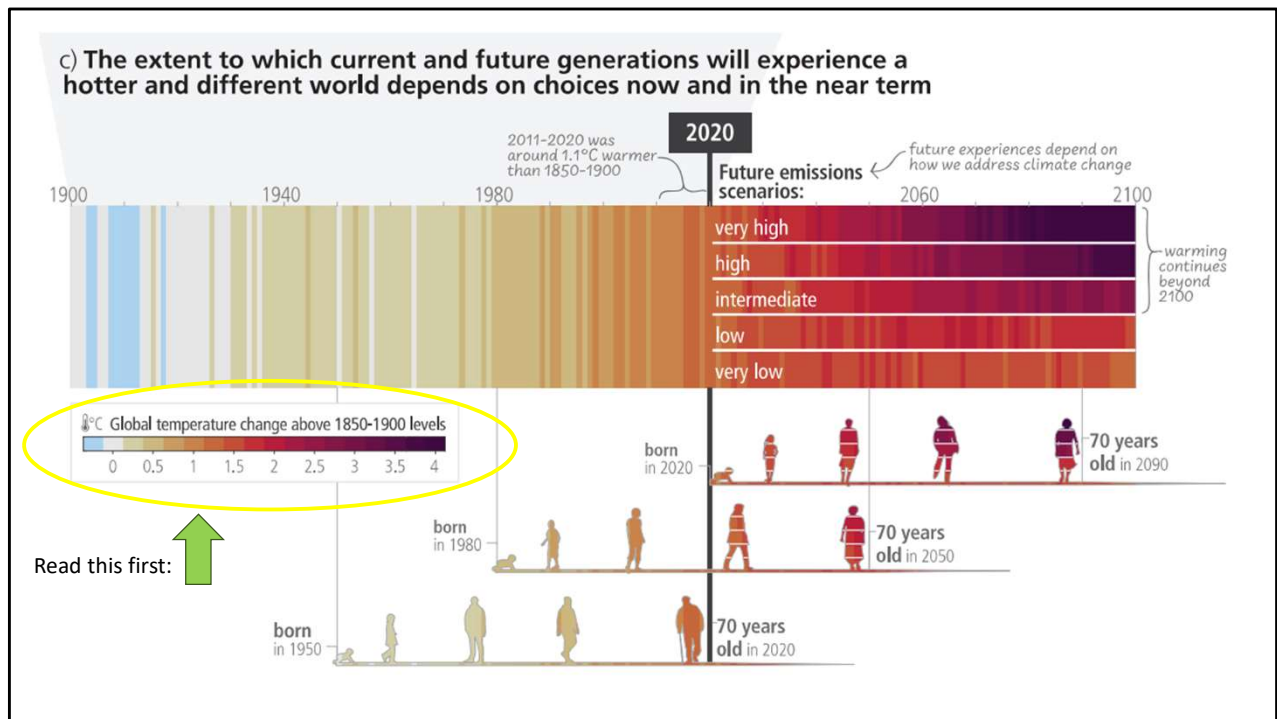
C.1 Climate change is a threat to human well-being and planetary health (*very high confidence*). There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (*very high confidence*). Climate resilient development integrates adaptation and mitigation to advance sustainable development for all, and is enabled by increased international cooperation including improved access to adequate financial resources, particularly for vulnerable regions, sectors and groups, and inclusive governance and coordinated policies (*high confidence*). The choices and actions implemented in this decade will have impacts now and for thousands of years (*high confidence*). {3.1, 3.3, 4.1, 4.2, 4.3, 4.4, 4.7, 4.8, 4.9, Figure 3.3, Figure 4.2} (*Figure SPM.1, Figure SPM.6*)

Referencing this report:
IPCC, 2023: Summary for Policymakers. In: *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001
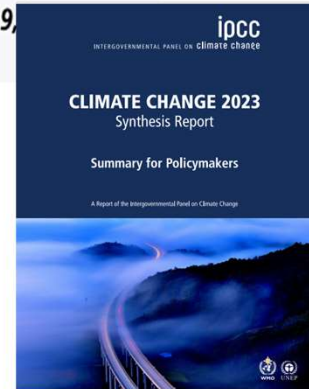
To state the case: This is one of the conclusions from that IPCC report which was issued in March. You will not that they list the strength of the scientific evidence for every statement. Note the mention of "vulnerable regions, sectors, and groups" – equity is a major concern at every level. The most vulnerable people – those who have not been consuming the planet to death – are the ones most likely to suffer from the effects of climate change and the groups who most need their schools to be climate ready.

c) The extent to which current and future generations will experience a hotter and different world depends on choices now and in the near term

To bring the message home: As the world heats up, the weather will become both more extreme and more erratic. Note the green arrow and yellow circle – the colors on the big chart stand for degrees increase. If we don't change course, children born today will live on a planet with less than half of the inhabitable territory, most of the large mammals extinct, huge areas of desertification etc. If we change course now, there is still an opportunity to save a lot of that habitable space – although likely not the oceans.

Everyone has a role to play

Everyone has a role to play. Youth voice can mean a couple of different things. First, there is voice for younger and less expert children. This is about finding out what they think and building on it, both to put their existing skill to work toward school climate readiness and so adults can know how to be immediately responsive. This should be solution-oriented and adult led.

However, there is also a more advanced form of voice and agency – where students are intentionally taking action. This is typically for older and more expert youth and can be problem focused and in the form of youth-adult partnerships.

Adult Voice/Agency

But all of it builds on adult agency – can adults do this work without communicating fear and without demonstrating helplessness. Adults need to be well informed and, as always, learn to contain emotions like fear and hopelessness. We'll say a bit more about this when it comes to the issue of climate event trauma.

The main point is that authentic solution oriented action requires adults voice and agency first… and so our session today is mostly for you to get an introduction to the best resources in the field on this topic.

Prompt: What does School Climate Readiness mean to you?

*Current actions/plans, Thoughts/Feelings around the subject*

Lets go around the room and please just mention what you are already doing or thinking about doing on this topic, or what this topic makes you think or feel? You can just say one word or tell us a quick story.

Governance & Planning

- Mitigation

- Adaptation

- Teaching & Learning

[Getting climate-ready: a guide for schools on climate action - UNESCO Digital Library](#)
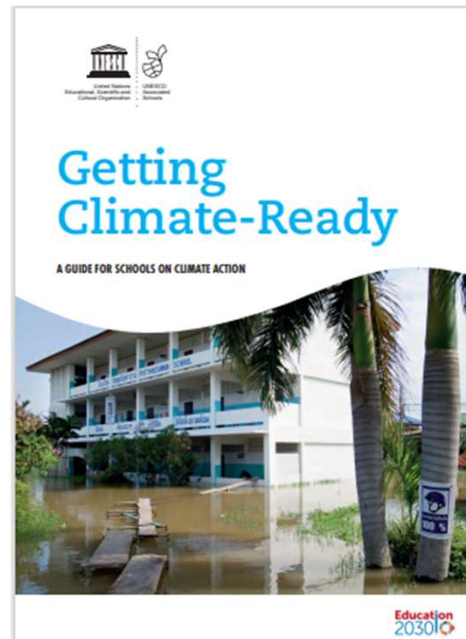
Across all of these resources, the issue of governance and planning for a climate readiness process is central – and in all cases includes youth and adult voice. This report in particular is a great one for explaining how to get into a planning process for school climate readiness, including figuring out what needs to be done and then collecting data as the first action – to help young people create evidence about where the school is at on three dimensions: Mitigation which is dealing with the carbon neutrality of the school and its infrastructure; Adaptation which is how you prepare for and respond to increasingly frequent and intense climate events; and teaching and learning about climate change. Importantly this last one includes the really important issue of how to talk to children about climate change.

We're going to introduce each of the topical areas in turn, each followed by a curated list of resources. Then we'll look at how Michigan is doing in these areas compared to other states. Lets jump in.

Mitigation

Move your school to Carbon Neutrality
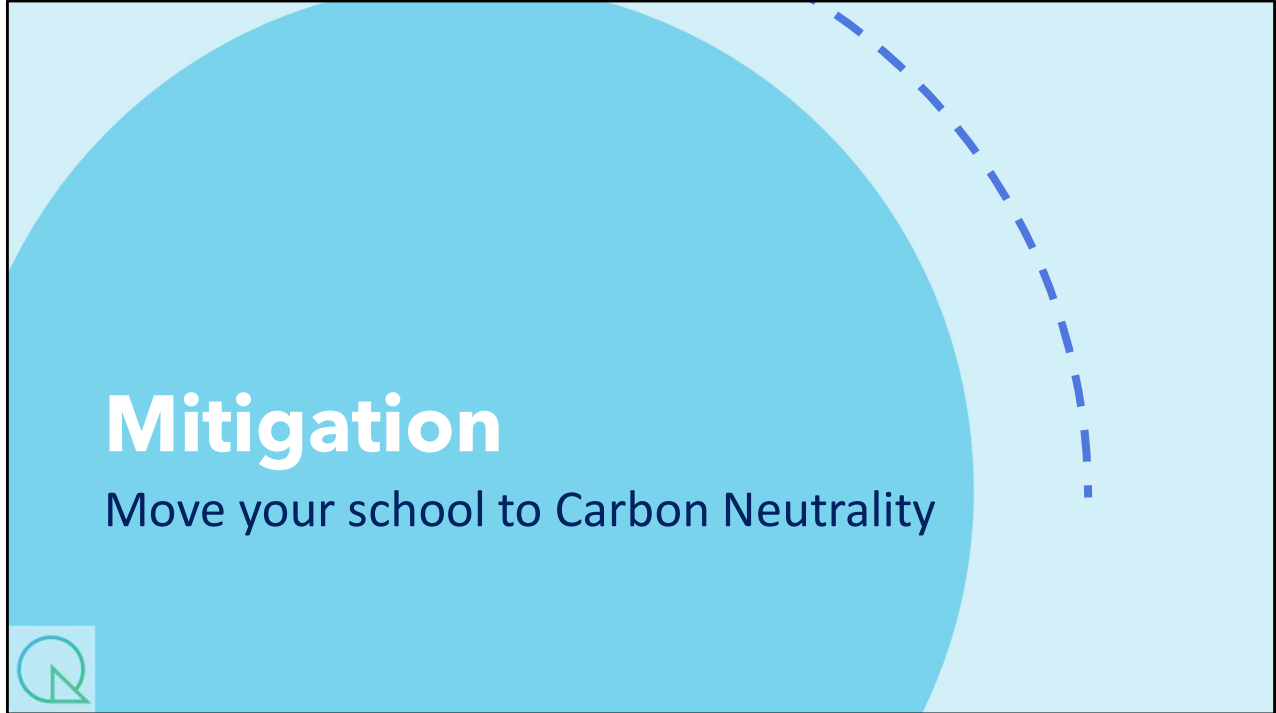
Mitigation is about moving your school (or your afterschool program as a first step) toward carbon neutrality. Carbon dioxide, methane and some other greenhouse gases are holding sunlight in our atmosphere in a way that is causing the warming (its more complicated than that but that's very short version). At a minimum, we need to stop using fossil fuels, reverse deforestation, stop wasting food, and dramatically reduce meat consumption.

Mitigation

1. Energy Reduction
2. Meals at School
3. Transportation
4. Green Space in schools
5. Reduce, Reuse, Recycle

In the resources we've provided here, Mitigation is defined by 5 types of action:

- Energy Reduction
  - o turn off lights in building when not using area, replace old windows, lightbulbs and ventilation systems that are more efficient, adding solar or wind power when and where available
  - o Use LEED standard to work towards a net-zero energy school
- Meals at School
  - o more veggies and less meat, locally sourced, create composts and school gardens, send kids home with extra food when in need.
- Transportation
  - o Carpooling, biking or walking to school, taking local fieldtrips, and having a "no idling" zone in drop-off/pick-up areas, electric busses
  - o 49% of states have policies against idling school transportation vehicles, Michigan is not one of them.
- Green Space in schools
  - o Revamp playground and school outdoor areas with rain gardens, local native flora and fauna, and creating no-mow areas of the schools grounds if on lots of green space for pollinators (BEES ARE GOOD), eliminate toxic playground equipment
  - o There is a lot of evidence that schools surrounded by green space have higher academic achievement and greater mental wellness – air pollution causes lower

academic achievement and mental unwellness.
- Reduce, Reuse, Recycle
    - Reduce use of all types of single use plastics, the amount of wasted energy in classrooms and building, printing unneeded pieces of paper
    - Swap out cleaning and maintenance products that contain harmful chemicals or are packaged in wasteful ways. Be intentional.

Mitigation - Resources

Climate and Community Project - A Green New Deal A GND for K-12 Public Schools | Climate and Community

Secondary Resources
- What is LEED certification? – U.S. Green Building Council (usgbc.org)
- Leading strategies for climate-friendly school food (foe.org)
- https://www.npr.org/sections/health-shots/2023/06/17/1182556371/schools-parks-healthy-cities-kids
- Green Your School: 5 Ways to Convert Your School into a Center for Sustainability - Student Conservation Association (thesca.org)
- Green Schools Initiative : Executive Summary
- Identifying Greener Cleaning Products | US EPA
- Green Your School (nrdc.org)

Here we list a set of curated resources that we thought were informative for school climate readiness. The primary resource is called the Green new Deal for Public Schools – this was put together for the Philadelphia public schools. You will note that the most advanced climate action is happening on the coasts where the sea rise and hurricanes are already being felt. New jersey is the only state in the nation with a comprehensive climate change curriculum mandated for all students.

Children and Nature Network (C&NN)

- Resources for Schools - Schools Archives | Children & Nature Network (childrenandnature.org)

- Green School Yards - Greening Schoolyards Advocacy Toolkit | C&NN (childrenandnature.org)

On the subject of green school yards, the Children and Nature Network has an excellent resource page and has just funded a green school yards coalition in Michigan – and there are number of school here that are part of the movement. In Dearborn, Grand Rapids, Detroit and a few other places. Hopefully within the next year or so this is a network that you would be able to connect with.

That was mitigation in under 10 minutes. Let's move on to Adaptation.

Adaptation
Prepare for Climate Events

Adaptation is about how to keep the process of teaching and learning going, event when climate events interfere, i.e., Ice, wind, rain, fire.

Adaptation

1. Prepare for extreme weather events
2. Prepare for integrated online learning
3. Prepare on trauma informed practices

- Prepare for extreme weather events
  - Teach adults and students about possible climate events in their biome. SE Michigan in summer and winter – high winds, heavy rain and flooding, tornados, heat waves and drought, ice snow hail, below freezing temperatures.
  - Create action plans for what you will do in cases of (1) displacement of children and families, (2) displacement of the school
    - within your organization at every level (Program wide, building wide, school day, afterschool, admin and service level)
    - For different outcomes, ie loss of building use, loss of internet connection, mass loss of power, loss of transportation access
- Prepare for integrated online learning or other forms of distance learning (i.e., the boxes of materials that many of you were delivering during the pandemic; the effort to connect with families and link them with services and the school during and after the climate event).
- Prepare on trauma informed practices
  - Warmth and containment
  - Developmentally appropriate information
  - Don't have to relive those experiences with you, teach management techniques without disclosure

Adaptation - Resources

K-12 Climate Action – The Aspen Institute **K12-StatePolicyLandscape2020_FINAL.pdf (aspeninstitute.org)**

Secondary Resources
- Equity in Education & Distance Learning - AfterSchool Network
- Tips for Survivors of a Disaster or Other Traumatic Event: Managing Stress (samhsa.gov)
- Disaster Specific Event Trauma - Survivors of Disasters Resource Portal | SAMHSA

We have a few resources here but perhaps the best is the Aspen Institute report on K-12 climate action for schools. They cover all three areas but they directly address the issue of planning and responding to climate events. We've included a couple of resources from SAMSHA – the substance abuse and mental health administration because they actually talk about climate event trauma and have a bunch of related materials, some of it for specific types of climate events. We included one piece here on equity issues in distance learning – everyone has already been thinking about that since the pandemic so we assume you are more familiar with the issues of getting education to children and families when they can't be in school or can't be in their homes.

Teaching and Learning
Developmentally appropriate curriculum
(and "how to talk to kids about climate change")

Finally, we come to more traditional territory… what should we be teaching a out climate change and climate readiness… and how should we talk to kids about what can be a really scary and overwhelming topic. As we'll see, the key is not to just assume that youth voice is just asking the kids what they think and letting it go in any direction. Adults need to be experts and partners at every step otherwise, youth voice can be deeply manipulative and potentially harmful to children. We can't just put it on the kids and assume that their "fresh perspective" will give us something more informed than the scientists. Adults need to help children take actions that they scientists would agree with so they can feel hopeful.

Curriculum

- Governance and planning
- Key concepts
- Framing hope

How we talk to students at different ages about climate will make them ready to approach climate conscious decisionmaking in their personal lives, and experience less stress in the face of coming climate events. We know that there are many "climate curricula" out there and we leave the search for specific curricula up to you. Here we talk about the kinds of home made efforts that are the kind of informal curriculum that components that anyone can design and use without buying a bunch of materials and following a script. The general idea is to add climate focused content in all subject areas. The point is to be introducing climate related concepts and science at every

opportunity in the teaching and learning process. Understanding is not enough – action is most important – but understanding is what school day teachers do so its important in that sense. For the afterschool curriculum:

- Governance and Planning – is an action orientation through which both adults and children can learn and bring the rest of the school community – particularly leadership – along on the learning journey. Again, the UNESCO report we presented earlier, as well as the Aspen report and the C&NN resource page has great stuff on this topic.
- Key Concepts - Teach key terminology and understanding of the processes that make environmental changes happen. Be specific.
- Framing Hope - Teach the past, present and possible future with the cause and effect of human behavior in all aspects of climate change. **Past is not changeable, but present determines future and we create that as we make our choices and take action.**

How to talk to children and youth

Communicate information, hope (not fear), and action steps (solutions) – IN DEVELOPMENTALLY APPROPRIATE WAYS

- Littlest Kids 0-6
- School Age 6-12
- Youth 12 – 14
- Teens 15 – 18
- Overall

This brings us to the incredibly important issue of how to talk to children about climate change and we can't emphasize enough that this needs to be hopeful, solution oriented, and action embedded with adult partnership and guidance at every step. Here is our summary of several documents on this subject:

Communicate information, hope (not fear), and action steps – IN DEVELOPMENTALLY APPROPRIATE WAYS (include headers below on slide)

- Littlest kids 0-6
  - Introduce concepts around environment, and cultivate curiosity of what is happening outside.
  - Teach respectful practices towards the earth the same way you teach respectful practices towards people.
  - Be positive, they don't need to feel the weight of the problems we are facing when they have no agency to solve it.
- School Age 6-12
  - Explain the science to them in ways they can understand. Be very clear about the facts and dispel myths that they may have heard from other sources.
  - Emphasize a solution oriented discussion to climate change, that the changes that

have happened may have us set on a bad course, we (both them and the adults who they trust) are able to make changes to right the path, and lots of people are working towards that.

- o Inform them of their personal power when it comes to taking action, they can't stop adults from driving cars but they can help recycle and both are important.

- Youth 12-14
  - o Let them have discussions about the environment, and teach them to search for answers if you do not have them from trusted reputable sources.
  - o Encourage them to express their concerns about both climate action that they see and what they notice is lacking.

- Teens 15-18
  - o Ask them questions and use them as a resource in the community. The more they educate themselves, the more they can educate those around them.

- OVERALL
  - o Adults have to stay consistent in action as well and encourage students to hold them accountable too.
  - o After climate events, allow kids to talk about how it makes them feel and to an age appropriate level, come up with coping strategies for the students.
  - o Younger students need to be soothed and told it is going to be ok, while older students may want actionable steps to take to feel in control of a situation that is not entirely within their control.
  - o Engage with the community so this conversation is not only happening in the afterschool setting.

Teaching and Learning - Resources

UNESCO: Getting every school climate-ready: how countries are integrating climate change issues in education - UNESCO Digital Library

Secondary Resources
- Your Guide to Talking With Kids of All Ages About Climate Change (nrdc.org)
- Curriculum | Climate Change Education (stanford.edu)
- https://www.changeissimple.org/program
- https://www.rainforest-alliance.org/everyday-actions/how-to-talk-to-kids-about-climate-change/?c_src=MDS22VX&c_src2=22vvmmembcpc&gad=1

Here a number of resources on the topic of teaching and learning about climate change. The primary document we present here is again from UNESCO – as a review of curriculum in countries around the globe. The general finding: Only about half of countries require it (similar to the proportion of American states as we'll see on the next slide). Almost all teacher think its important, about half think they have the expertise to teach it, about 20% think they know how to guide action.

So that's our review of Mitigation, Adaptation, Teaching and Learning. Let's look at how Michigan is doing.

Michigan Statewide Policies in Education: Four of Fourteen (28%)

Type	Climate Readiness Practices	State Policy Yes/No (# other states Yes)
Mitigation	**Energy**: Net Zero Schools	No (6)
	Transportation: No Idling	No (25)
	Food: Diversion/Composting/Gardens **Local Food**: Appropriation/Farm-to-School/Local pref	No (14); No (6); No (18) Yes (24); No (18); Yes (24)
Adaptation	**Virtual Learning Days**	No (13)
Teaching and Learning	**Career and Technical Education**: Green Careers	No (29)
	Science Standards: Require Climate Change	Yes (30)
	Social Studies: Address Enviro Issues Require Climate Change/Require Sustainability	Yes (41) No (5); No (16)

The information in this slide is drawn from the Aspen Institute Report listed in the Adaptation resource slide. Of 14 climate practices investigated, Michigan has state wide policies in place for only 4, i.e., there are four "yes"s in the last column. The numbers in parentheses in that last column describe that number of states that have statewide policies addressing these policies. We as a country are grossly unprepared, and Michigan is more unprepared than most. Again, take a look at the Aspen Institute report.

What is your interest?

- Mitigation
- Adaptation
- Teaching and Learning

What is possible in Afterschool?

Thank you for all your hard work.

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