

Resources Supporting the Why and How of Outdoor Learning

1



Outdoor learning is not a new concept. An extensive and growing body of research demonstrates its effectiveness in supporting healthy physical, social and emotional development, particularly for young children, as well as improved behavior, engagement and academic outcomes across all age ranges.

With the challenges created by the pandemic, schools are looking to the outdoors as safer places for teachers and students to be able to congregate and connect in person. Additionally, disparity in access to the restorative benefits experiences nature provides is an equity issue. Outdoor play will be a particularly restorative practice for children impacted most negatively by the pandemic, but is imperative for all young children.

Forest PreKs are proliferating across the country and now licensed in Washington State - *that's PUBLIC Forest Preks & Kindergartens*. Vermont public kindergartens have "Forest Fridays" fully outside year-round. Meroby Elementary School in Mexico, Maine has had these Forest Fridays across K-2 grades for several years. Educators might feel daunted - that they need extensive training to do this - but they can start by just taking all they know about teaching indoors - and using it outdoors, in a different space, adding a few strategies (see Boston Schoolyard Initiative's Tips & Tricks doc). If they are ready to do more, there are great ways to use the outdoors for powerful learning - and resources here to start doing that as well.

--Laura Newman, Portland, Maine, July 2020

[Learning by Nature for ME & School Ground Greening Coalition](#)

Note: I will continue to update and organize this resource list regularly - thanks for bearing with it as it is in flux.

Outdoor learning, like all school, looks different for different aged students!

Resources below and in the linked folder are generally grouped as listed below, and growing regularly.

See [this folder](#) for pdfs/handouts that summarize research, etc. More being added/organized each week. Please note that Children & Nature Network's research library is one of the most extensive available.

- **What does Outdoor Learning look like?**
- **Outdoor Learning Activities/Curricula**
- **Why Move Classes Outside?**
- **Equity re: access to the outdoors**
- **Early Childhood Resources**
- **Research**
- **Outdoor Classroom Infrastructure - logistics and practical info**
- **How this supports all four pillars of the Portland Promise**

New, in Maine region:

Inside-Outside's Outdoor Learning Opportunities for Healthy Students - Important and helpful 2-pager for Maine/NH/Vermont Elementary Schools - videos, sample schedule, etc.

<https://static1.squarespace.com/static/5cef097070108400013b627d/t/5f08e2f33aeb01466c065267/1594417908037/Outdoor+Learning+School+Reopening+071020.pdf>

Maine Statewide Forum on Outdoor Learning + Resources for followup

<https://www.nbeconsortium.com/2020-school-reopening-forum>

Nature Based Education Consortium's OL Resource Page, with [Quick Reference Guide](#)

<https://www.nbeconsortium.com/outdoor-learning-schools>

Maine Environmental Education Association

<https://www.meeassociation.org/>

What does Outdoor Learning look like?

Video: Boston Schoolyard Initiative - Great 10 minute elementary outdoor learning video with teachers, principals, kids - shows what it looks like (clipboards etc.), makes the case for why outdoor learning is effective - urban setting

<https://www.youtube.com/watch?v=ilUSzeonSPE>

Video: TED Talk - Nature is Everywhere - (not just in woods, nature preserves, etc....)

https://www.ted.com/talks/emma_marris_nature_is_everywhere_we_just_need_to_learn_to_see_it

NAAEE - Here's what could happen if schools use the outdoors - and how:

Guidance for Re-opening Schools - see attached PDF with specific ideas

<https://naaee.org/eepr/resources/ee guidance-reopening-schools>

Best Action-Oriented Resource NOW. Green Schoolyards America is convening 11 working groups including connections with districts across the country strategizing and providing resources to problem-solve NOW.

<https://www.greenschoolyards.org/covid-learn-outside>

They are constantly adding tools and resources to this dynamic effort, in addition to holding weekly meetings for each group open to any interested.



Building your Outdoor Classroom - the Top 10 - an extended picture guide

https://foodcorps.org/cms/assets/uploads/2019/09/Building-Your-Outdoor-Classroom_The-Top-10-An-Extended-Picture-Guide_Education-Outside-Resources-Final-8.1.pdf

Why Move Learning Outdoors this Fall...and into next spring and summer as needed...

[Inside the quest to reopen schools—by moving classes outside](#)

“Every kid at every grade level in every subject area can do the majority of their learning outside.” Fast Company, July 25, 2020.

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

Teachers Plea for Outdoor Learning - excellent summary of why do this

https://www.nydailynews.com/opinion/ny-oped-teachers-plea-for-outdoor-learning-20200714-53dhhpkbcnanhc74kgfaj35ze4-story.html?outputType=amp&__twitter_impression=true

Schools Beat Earlier Plagues with Outdoor Classes. We Should, Too. A century ago, children in New York City attended classes during a pandemic. It seemed to work.

https://www.nytimes.com/2020/07/17/nyregion/coronavirus-nyc-schools-reopening-outdoors.html?referringSource=articleShare&fbclid=IwAR0S9MA81JZzLdPQIED1CSfDIz_1FcBqtsDaU47c6E1OS_flf0DmTibPTAM

Getting Smart - Education Website - articles...

<https://www.gettingsmart.com/2020/05/remote-learning-lessons-learned-and-reflections-to-inform-the-future/>

Why we need to take care of children's mental health first.

<https://www.forbes.com/sites/nickmorrison/2020/05/15/its-not-childrens-education-we-should-worry-about-its-their-mental-health/#69b104671fcb>

The Urgent Need for Nature During and After Covid-19

<https://www.gih.org/views-from-the-field/the-urgent-need-for-nature-during-and-after-covid-19/>

Meroby Elementary - Mexico, ME - This low-income district has been successfully doing Forest Fridays (one day all day outside year-round) for a number of years.

<https://wgme.com/news/forward-thinking/kindergartners-collect-maple-syrup-as-part-of-nature-program>

'Nature Deficit Disorder' Is Really a Thing 6.23.20

<https://www.nytimes.com/2020/06/23/parenting/nature-health-benefits-coronavirus-outdoors.html>

Schools Should Reopen Outdoors, by Katherine Martinko 5.19.20

<https://www.treehugger.com/family/schools-should-reopen-outdoors.html>

US Pediatricians call for In-Person School This Fall - The Dangers of Social Isolation Outweigh the Risks of In-Person Classes for Most Children

<https://www.npr.org/sections/coronavirus-live-updates/2020/06/29/884638999/u-s-pediatricians-call-for-in-person-school-this-fall>

Scotland Eyes Outdoor Learning as Model for Reopening of Schools Cold, Rainy Scotland

https://www.theguardian.com/uk-news/2020/may/10/scotland-eyes-outdoor-learning-as-model-for-reopening-of-schools?CMP=Share_AndroidApp_News_Feed&fbclid=IwAR1-QNx2_CIR5kjscaekoY0POQFQRNGomKb8NdELxyTsGN7bE3BemMMB1fY

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

Vitamin N - Ming Kuo's TED Talk - Dr. Ming Kuo's extensive research scientifically proves what we intrinsically know to be true: That spending time in nature has profoundly positive and long-lasting effects on our psychological, physical, and social health.

<https://www.youtube.com/watch?v=JGh8CqS4HLk>

Pandemic Could Decimate Environmental/Outdoor Science Education Programs

https://news.berkeley.edu/2020/06/15/pandemic-could-decimate-environmental-outdoor-science-education-programs/?fbclid=IwAR0bC-xQcdeSDm_Z12G3KOA2z7dgF8lauHkSYri9-karF21-EOGx4NksuU0

And

https://www.lawrencehallofscience.org/sites/default/files/EE_A_Field_at_Risk_Policy_Brief.pdf

The Case for Doing Everything Outside - by Bonnie Kristian, The Week, 6/1/20

<https://www.theweek.com/articles/916598/case-doing-everything-outside>

American Academy of Pediatrics Recommendations

<https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>

“High-Priority Strategy: Utilize outdoor spaces when possible.”

DOE Guidance for return to classrooms 6/10/20

<https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/Framework%20for%20Returning%20to%20Classroom%20Instruction%20ALMOST%20FINAL%20%281%29.pdf>

EQUITY - Access to Nature and time outside is an Equity issue

Access to Nature and time outside is an Equity issue - Here's Why

<https://youthoutdoorpolicy.org/why-youth-outdoors/>

See equity/inclusion-related links to Children & Nature Network and NAAEE on this page

NAAEE - Justice, Equity, Diversity and Inclusion

<https://naaee.org/our-work/programs/justice-equity-diversity-and-inclusion>

Centering Equity in EE's Covid Response

<https://naaee.org/eepr/learning/webinars/webinar-centering-equity-ees-covid>

Webinar: Connecting to the Latino Community in the Age of COVID-19

<https://naaee.org/eepr/learning/webinars/webinar-connecting-latino-community-age>

Vin Shambry, The Moth - Video - short story of inner-city homeless child's experiences at outdoor camp. 9:22. Worthwhile 10 minutes of powerful story/inspiration

<https://www.youtube.com/watch?v=uVFTjaUFGw4>

New & Important study about inequities in access to nature:

<https://www.americanprogress.org/issues/green/reports/2020/07/21/487787/the-nature-gap/>

ALL CHILDREN NEED NATURE: 12 Questions About Equity & Capacity

By Richard Louv - Jan 16, 2018

<https://www.psychologytoday.com/us/blog/people-in-nature/201205/every-child-needs-nature-12-questions-about-equity-and-capacity>

Embracing More Diverse Representations of Children in Nature Inspired Books - Carla Gull University of Phoenix, USA

https://naturalstart.org/sites/default/files/journal/9._book_reviews_formatted_0.pdf?fbclid=IwAR2bT5Q8PT_JEX0XJqGYL8YBdPB6ZlxVBVkjMb6UopdxIQVVNX8oA7qGi9M

Outdoor Learning Activities/Curricula/Training

Evergreen - Outdoor Learning & Play Resources

Long-standing Canadian Green School Ground (and more) org

<https://www.evergreen.ca/tools-publications/?subject=286&page=6>

Green Teacher Magazine - tested teaching ideas, magazine, resources

<https://greenteacher.com/>

OutTeach - Training and resources tying academic achievement, school gardens, STEM

<https://www.out-teach.org/what-we-do/professional-learning-program/>

Simple Ways to Bring Learning Outside - By Trey Jones - 5/4/20 -Going outside helps students focus, and activities for classes from social studies to math can incorporate the natural world.

<https://www.edutopia.org/article/simple-ways-bring-learning-outside>

Teachers' Advice for taking students outdoors

<https://outlier.uchicago.edu/BSI-SSY/for-teachers/>

Boston Schoolyard Initiative: Tips & Tricks for Outdoor Classroom Management

http://www.schoolyards.org/pdf/Tips_and_Tricks_2012.pdf

Boston Schoolyard Initiative: Structuring an Outdoor Lesson

http://www.schoolyards.org/pdf/structuring_outdoor_lesson.pdf

School Ground Greening Coalition Teaching Outside Workshop Participants (Maine)

A Variety of lesson plans across subjects and grades by teachers new to this!

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

<https://greeningschoolgrounds.wordpress.com/outdoor-teaching-plans-from-portland-teachers/>

Community Learning for ME

<https://www.communitylearningforme.org/>

This website is a result of many organizations stepping into a virtual space to support teachers and families during COVID-19. The following organizations have been involved as members of our Creative Design Team, assisting in developing content and formatting of the website itself, as well as offering sessions to support teaching and learning. It is our hope that this platform becomes a welcome resource for; organizations to share their amazing work, for teachers and educators to collaborate, and for families and students to access the rich array of resources that are right here in the great State of Maine!

Teaching Outside Activities/Curricula

FOSS Science Curriculum - OBIS (Outdoor Biology Instructional Strategies) Activities

<http://www.outdoorbiology.com/>

Lifelab.org

<https://www.lifelab.org/for-educators/education-outside/>

Boston Schoolyard Initiative Resources

<http://www.schoolyards.org/teaching.resources.html>

International Green Schoolgrounds Alliance Activity Guides

<http://www.internationalschoolgrounds.org/news/2018/4/9/announcing-isgas-new-expanded-activity-guides-for-schools>

Learning Through Landscapes

<http://www.ltl.org.uk>

Until the end of the Covid-19 outbreak all our work will be free and online.

This is a **group for educators and teachers** – where we will offer free resources, webinars, training and advice www.facebook.com/groups/learning.through.landscapes

This is a **group for parents**, looking for ideas to spark and engage in learning, nature and activity - www.facebook.com/groups/2947052738685771/

Education Scotland

Outdoor Learning: Practical guidance, ideas and support for teachers and practitioners in Scotland - <https://education.gov.scot/nih/Documents/hwb24-ol-support.pdf>

https://education.gov.scot/Documents/cfe-through-outdoor-learning.pdf?fbclid=IwAR1jnAQtdBR1u1IND8_MVTXpzCmJv6k8ZljO5YDg0mCN5HYU5fN3K4wAQZs

NGSS Garden Lesson Bins (Cultivating Community/ FoodCorps/ PPS):

https://drive.google.com/drive/u/1/folders/1rUpAuCXXoJPbtpUncsTnZy2cG_iE6lXK

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

Garden/Agriculture

Portland School Garden Network (SGN)

- [PPS School Gardens Snapshot - 2018](#)
- [PPS School Gardens 'Inside Look' - 2019](#)

FoodCorps

Maine School Garden Network

<http://www.msgn.org/>

School Garden Support Organization Network

<https://www.sgsonetwork.org/covid/>

Community Grows (part of Education Outside)

<https://www.communitygrows.org/>

Life Lab

Early Childhood Education Resources - Prek-2-ish

Outdoor Play in nature is a human right

At this time, young children need it even more.

Claire Warden - Mindstretchers - Internationally recognized pioneer and resource for nature-based Early Childhood Education - offers many online courses and resources.

<https://mindstretchers.academy/>

Samara Early Learning - Rachel Larimore - Experienced Guidance for nature-based education - experienced leader in development of nature-based early childhood programs. Founder, Rachel Larimore, wrote the books on nature-based preschools. Her newest book, [Preschool Beyond Walls: Blending Early Childhood Education and Nature-based Learning](#), focuses on [teaching](#) practices fundamental to the nature-based approach. In contrast, [Establishing a Nature-based Preschool](#) focuses on the [administrative](#) aspects of opening a new nature-based preschool.

What is a Nature-Based Preschool? - short video (4:39) gives a sense of the structure and examples of what this looks like. *"No matter where you are, whatever your program is, every program can integrate the outdoors in, on some level."*

<https://vimeo.com/323266596>

Inside-Outside

<https://www.insideoutside.org/all-resources>

Juniper Hill School - Alna, Maine - Nature-Based Education Leader

www.juniperhillschool.org

<http://www.juniperhillschool.org/workshopregistration> - August Institute!!

MRTQ PDN articles - note this collection will be transferred into a new folder for this initiative...

https://drive.google.com/drive/folders/190Sa_bpseQa2BpmlOqZZHMDdlmC1YtPk?usp=sharing

Juliet Robertson, UK - Creativestarlearning.co.uk Leader for speaking, trainings, author, and online resource for teaching outdoors. Some examples:

Outdoor Learning Tips - Rainy days, etc.

<https://www.youtube.com/watch?v=mKhZXNzDaco>

Messy Outdoor Maths

https://www.youtube.com/watch?v=Nh_4SEUpSrA

<https://docs.google.com/forms/d/e/1FAIpQLSdAZg1InoQeyKQTW8k-MohTjOBIHfSc2P11XxXRxVoP8hmwNw/viewform> - complete form to receive Minnesota Toolkit for early childhood educators and care providers

Scotland Early Childhood - Outdoor Learning

https://www.theguardian.com/uk-news/2020/may/10/scotland-eyes-outdoor-learning-as-model-for-reopening-of-schools?CMP=Share_AndroidApp_News_Feed&fbclid=IwAR1-QNx2_CIR5kjsc_aekoY0POQFQRNGomKb8NdELxyTsGN7bE3BemMMB1fY

Natural Start - Early Childhood branch of NAAEE - see their [July conference link!](#)

www.naturalstart.org

[Embracing More Diverse Representations of Children in Nature Inspired Books](#)

Natural Start

Inside-Outside - Nature-Based Educators of New England

<https://www.insideoutside.org/>

Summer Institute For Early Childhood and Elementary Educators

Teaching with Nature

August 5th - 8th, 2020 Alna, ME

<http://www.juniperhillschool.org/workshopregistration>

U Maine - Farmington - Patti Bailie, professor of education and longtime national leader in nature-based early childhood education. UMF will offer a nature-based early childhood minor starting in 2021.

AntiochNE offers a program in nature-based ECE and has classes this summer and fall available.

<https://www.antioch.edu/new-england/wp-content/uploads/sites/6/2020/03/SU20-NBEC-Courses-030320.pdf?fbclid=IwAR25rsvhzslt3BB1qgSBmZXTawHTPDrtCmyHkWS3o2dwjcFMJG1UTxlbY4>

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

Play First - Online Summit - July 20, 2020

https://theplayfirstsummit.com/fairydust/?inf_contact_key=d279d28caa04579a501985baa1e5ad617e470d92b8b75168d98a0b8cac0e9c09

Maine Audubon - Falmouth, ME

<https://www.maineaudubon.org/education/workshops/>

Webinars/Trainings - note that some may be recorded for access afterwards

Natural Start Nature-Based Early Learning *Virtual* Conference

Join us **July 29-31** for more than 50 interactive live sessions, enjoy 24-hour on-demand access to more than 40 sessions throughout the conference week, and **access all of the sessions for up to one year.**

<https://conference.naturalstart.org/>

June 4 Webinar - Green Schoolyards America, Lawrence Hall of Science (Berkeley), Ten Strands & Environmental Literacy & Sustainability Initiative

<https://www.eventbrite.com/e/outdoor-spaces-as-essential-assets-for-school-districts-covid-19-response-registration-106325963820>

June 3, 4pm CST Webinar: Outdoor Learning is Essential: Advocating for Change in Public Schools

June 10 4pm CST Zoom followup with panelists:

Northern Illinois Nature Preschool Association

Panelists Amy Butler, Peter Dargatz, and Anna Dutke will explore the ways in which nature-based philosophies have been successfully integrated into a variety of public school programs across the country. Learn how you can mobilize to lobby your local school systems to adopt safe and healthful nature-based approaches in response to COVID-19.

An outdoor-centric approach provides easier social distancing, boosts the immune system, promotes academic growth through hands on learning, and reduces stress fostered by today's climate. Join our experts to learn more about the movement of nature-based education in public schools and how you can be an advocate for your school.

<https://www.insideoutsummit.org/>

<https://www.antioch.edu/new-england/wp-content/uploads/sites/6/2020/03/SU20-NBEC-Courses-030320.pdf?fbclid=IwAR25rsvhzslt3BB1qgSBmZXTawHTPDrtCmYHkWS3o2dwjcFMJG1UTxIbY4>

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

Green Schoolyards - info from past 5-10 years supporting benefits

Richard Louv - The School of Nature - Greening our schools may be the real cutting edge of education <http://richardlouv.com/blog/the-school-of-nature-greening-our-schools-may-be-the-real-cutting-edge-of-e/>

GREEN SCHOOLYARDS A GROWING MOVEMENT SUPPORTING HEALTH, EDUCATION AND CONNECTION WITH NATURE

<https://healthyschoolscampaign.org/wp-content/uploads/2016/03/GreenSchoolyards.pdf>

Developing Great Schoolyards: A Handbook for Elementary Schools

www.21csf.org/csf-home/publications/DevelopingGreatSchoolyards20111025.pdf

Research

Searchable Database:

<https://www.childrenandnature.org/learn/research/>

Outdoor Classroom Infrastructure - logistics and practical info

Covid-19 Outdoor Classrooms as Essential Assets

This links to a very active group which is generating resources and volunteers now.

<https://www.greenschoolyards.org/outdoor-infrastructure>

Building your Outdoor Classroom - the Top 10 - an extended picture guide

https://foodcorps.org/cms/assets/uploads/2019/09/Building-Your-Outdoor-Classroom_The-Top-10-An-Extended-Picture-Guide_Education-Outside-Resources-Final-8.1.pdf

Tent example

Curl la Tourelle Head Builds First Socially Distanced Tent for a London Primary School

<https://www.archdaily.com/941879/curl-la-tourelle-head-builds-first-socially-distanced-tent-for-a-london-primary-school>

School Ground Greening Coalition - Portland, Maine

School Projects - some outdoor classrooms

<https://greeningschoolgrounds.wordpress.com/portfolio/site-based-liaisons>

How this supports all four pillars of the Portland Promise

Portland School Garden Network - gardens at almost every school

- [Portland Promise, Food Security, and School Gardens \(Handout\)](#)
- [Portland Promise and School Gardens \(slideshow\)](#)

If you find something useful here, please share it with others! You are welcome to share the link to this doc too.

LOCAL Resources - Including staffing, volunteers, materials, programs, etc.

Children's Museum & Children's Theater of Maine

SailMaine

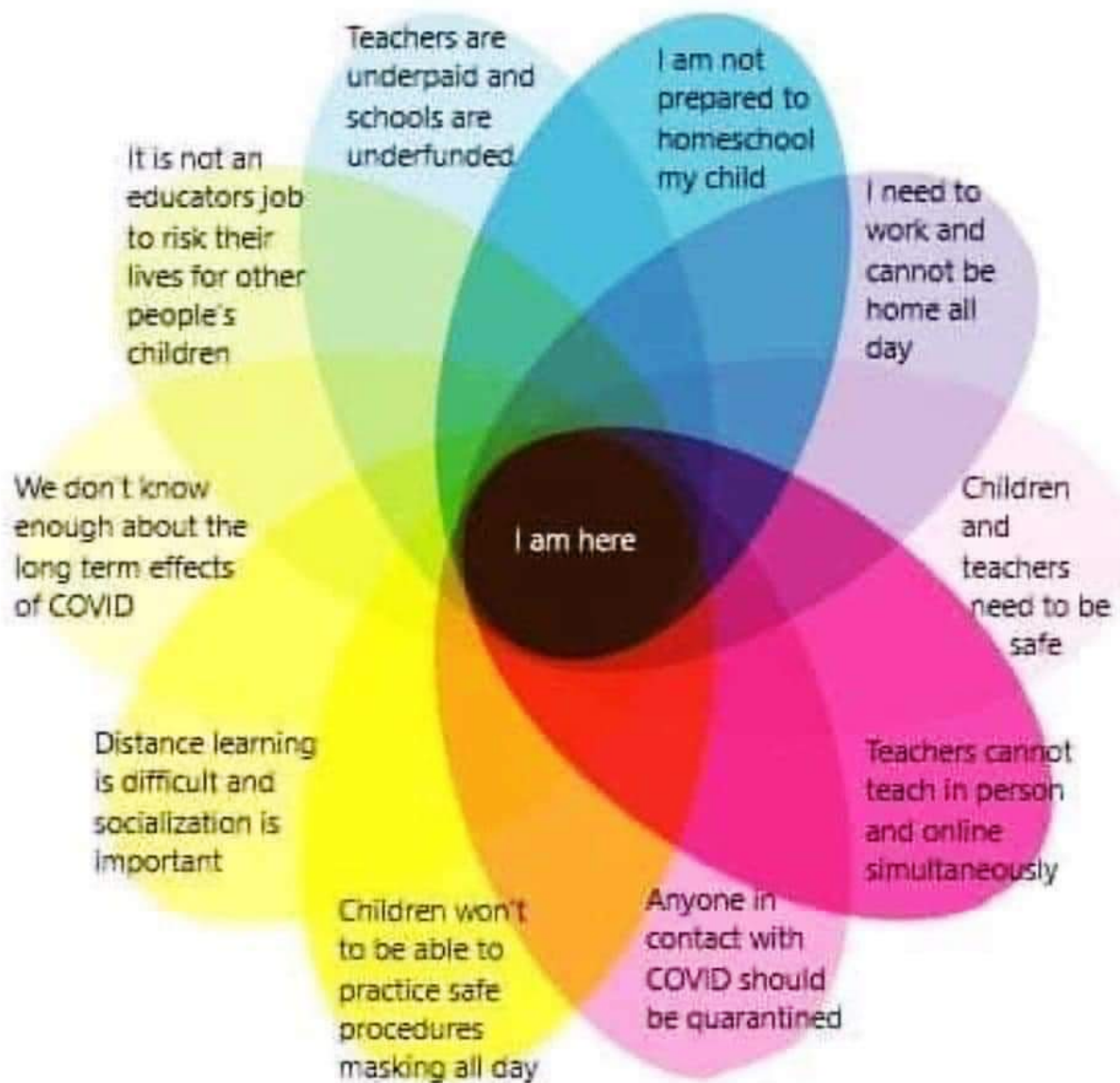
Telling Room

Portland Trails

Rippleeffect

College Students taking time off

How parents are feeling:



If you find something useful here, please share it with others! You are welcome to share the link to this doc too.