

School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS**School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools

Public Charter Title I Magnet Private Independent Rural

Name of Principal: **Ms. Catherine Koons-Hubbard**

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: **Schlitz Audubon Nature Preschool**

(As it should appear on an award)

Official School Name Mailing Address: **1111 East Brown Deer Road, Milwaukee, WI 53217**

(If address is P.O. Box, also include street address.)

County: **Milwaukee** State School Code Number *: n/a

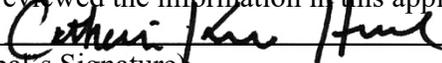
Telephone: **414-352-2880 x153** Fax:

Web site/URL: **<http://www.schlitzaudubon.org/education/nature-preschool>**

E-mail: **CKoons-Hubbard@schlitzaudubon.org**

**Private Schools: If the information requested is not applicable, write N/A in the space*

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.


(Principal's Signature)

Date: 2/7/2019

Name of Superintendent: **n/a**

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)



District Name: n/a

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. _____ Date:

(Superintendent’s Signature)

Nominating Authority’s Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school’s eligibility and compliance with the following requirements is true and correct to the best of the Authority’s knowledge.

1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: **Wisconsin Department of Public Instruction**

Name of Nominating Authority: **Carolyn Stanford Taylor, State Superintendent**
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

_____ Date: 2/14/2019
(Nominating Authority’s Signature)

SUBMISSION

The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: March 31, 2021

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

U.S. Department of Education Green Ribbon Schools
Summary of Achievements
for
Schlitz Audubon Nature Preschool

The Nature Preschool at Schlitz Audubon Nature Center was founded in 2003. Located on the shores of Lake Michigan in Milwaukee, Wisconsin this suburban school serves 144 three- and four-year-olds in morning and afternoon classes.

The preschool is a member of the Natural Start Alliance, which is part of the North American Association of Environmental Education and a founding member of the Wisconsin Nature-Based Early Childhood Association), which is in turn a part of the Wisconsin Nature Action Collaborative for Children.

Reducing Environmental Impact and Costs

Housed in a Gold LEED certified building, the pre-school has three classrooms, each with enormous glass windows overlooking prairie, woodland, and natural play spaces. The teachers often keep the lights off due to the natural light that pours in through the windows, thus reducing energy costs. The Center is built from a combination of sustainable woods, including Black Locust and Norway spruce from the property. The teachers made a commitment to eliminate plastic as much as possible, and instead use natural materials, including several items taken from fallen trees on the property. Every few years, a preschool art festival called Ash-to-Art is held during which children and their families create art on large cross-sections of ash wood taken from the ash trees coming down on the property. This experience is combined with lessons and activities about the emerald ash borer.

The pre-school uses as many recycled, upcycled, natural, and environmentally friendly products in the classroom as possible, from educational materials down to cleaning supplies. The preschool teachers make a point of reducing, reusing, and recycling in classrooms and teaching this behavior to students.

Improving Health & Wellness

Students and staff hike daily, transitioning from short distances at the start of the year to a mile by the end. Students learn about how important it is to care for themselves and others. Students and staff regularly do yoga and practice mindfulness. Preschoolers play outside in all weather, and spend at least an hour, up to 2 hours and 45 minutes outside daily in conditions above zero degrees without lighting. Families and children learn how to dress appropriately for all temperatures and kinds of weather. Students and staff wash hands several times a day.

A yoga class is offered on Mondays and staff are encouraged to spend their breaks outside in our 185 acres. Teachers get with emotional support by way of staff outings, social gatherings, and general classroom support and they are encouraged to stay home when sick. The staff is united through a common passion and mission, which makes the overall working environment more appealing.

The Center supports organic, fair trade, and local suppliers and buys local fruits and vegetables as often as possible. While the half-day preschool program doesn't offer meals, the staff cooks healthy foods with the children as part of programming whenever possible, such as during their summer camp called "Dirt Made My Snack" which teaches preschool children the connection between healthy soil and healthy food and makes homemade organic snacks daily.

Increasing Environmental Literacy

During the nine months at Nature Preschool, children will learn about water, animal habitats, recycling, and seasonal changes; they will participate in maple sugaring, gardening, and composting; they will learn to care for animals both in the classroom, on the trails, and through our raptor center. And they will develop a sense of community and connection to the land that will outlast their time at Nature Preschool. Students spend more than half of their time at preschool outdoors; they begin each day in one of three outdoor play spaces, where they are able to plant and harvest a large vegetable garden; look for worms and insects under logs; run; play; experiment with mud and water; climb on structures made from fallen trees, ask questions, explore, and engage. This time is followed with a hike on the trails. Preschoolers may spend time on the beach at Lake Michigan, visit one of the many ponds on the property, climb the 60-foot tower, rake leaves, or tap maple sugar trees, etc. Hikes change daily based on what is happening seasonally.

Preschool teachers practice what they teach. Several have taken Master Naturalist training and participate in the center's Sustainability Committee. Staff have written extensively and presented at conferences about the social, emotional, cognitive, motor, and overall health benefits of playing outside, in addition to fostering a deep sense of environmental awareness and connection to nature.

The goal of the Nature Preschool at Schlitz Audubon is to help children develop a connection to nature and the environment that will remain with them long after they leave the program and will one day result in their becoming stewards of the earth.

About the Summary and Scoring:

The complete state application is too long to include in this nomination submission, so the applicant's information has been summarized in the following pages, aligned with the pillars and elements. Each application was ranked by teams of external reviewers and internal reviewers, each with different areas of expertise, using a common ranking tool. In addition, the slate of nominees was forwarded to related state and federal agencies to ensure there were no compliance or regulatory issues.

The summary of the nominee's achievements as reported in their application is presented in each pillar and element below. The focus area is in reference to Wisconsin's application structure.

Pillar I: Reduced Environmental Impact

Element 1A: reduced or eliminated green house gas (GHG) emissions

Focus Area: Energy

The Nature Preschool is housed in a building that was the first Gold Leed Certified building in Wisconsin (2003). In 2017, we built a small "Welcome Booth" at the front of our driveway and 50% of the building area meets green building standards. The school uses Geothermal, Photovoltaic (PV)/Solar Electric, Active Solar Thermal, Daylighting energy sources, providing 50% of total energy use. We actually sell renewable energy back to the utility, WE Energies.

Our energy conservation has been outstanding since we were built in 2003. Sixteen years later, we are funneling funding, and time into maintaining and updating our systems to continue to meet these standards, such as replacing nearly all of our lighting in the building with energy efficient LED and upgrading our geothermal beds.

Our facilities staff is very conscious of the use of our building, and it is built into all of our center events that we be as low-energy, low-waste as possible. We have lights that automatically turn off in most of the building, but in the areas that don't we have signage/info- graphics asking staff and students to turn off the lights.

The school implements the following energy efficiency practices and policies:

- Computer power management settings
- Thermostat temperature setpoints
- Hot water temperature setpoints
- Optimized programming of occupancy sensors
- A central control system to remotely monitor and control heating and cooling equipment
- Monitor energy usage by tracking monthly energy consumption and costs
- Guidelines for limiting personal appliances such as portable space heaters or mini-fridges
- Follow a schedule for regular maintenance of HVAC equipment
- Upgraded energy-saving equipment (2003, 2014)

Students and staff help identify and/or implement behavioral changes to reduce energy consumption: In preschool, we simply choose to leave the lights off, or set to their lowest levels, whenever possible, much preferring the look and feel of natural sunlight in the classrooms. We make a point to always shut off lights when we leave the room, and we visit the solar-powered fountain overlooking Lake Michigan, in addition to the solar panels themselves.

We also read books to our children on this topic, including *Ten Things I Can Do to Help My World* by Melanie Walsh, *My First Green Book: A Life-Sized Guide to Caring for the Environment* by DK Books, one children’s book we read in relation to our unit on fire that touches on the burning of coal.

Staff have attended all of the Green and Healthy Schools conferences, and have toured the center building with the architect, learning how the design incorporates energy reduction practices.

Our solar panels are an incredible teaching resource. We also teach about energy and systems in all of our environmental education programs, from preschool through adult. However, we do not use the words “energy education” in our preschool curriculum. Rather, we talk about responsible practices, such as shutting off water and turning off lights.

Element 1B: Improved water quality, efficiency, and conservation

Focus Area: Water

The school’s drinking water comes from a well on school property. Our facilities manager has been certified (2016) to conduct well test on an annual basis. We are required to test for lead, Coliform Bacteria and Escherichia Coli, in addition to testing nitrate -nitrogen levels, which may not exceed 10 milligrams per liter. Our water tests must be compliance with Chapter NR 809 Safe Drinking Water Act Standards. We installed water bottle stations on the first and ground levels of our building and encourage the daily use of water conservation.

Our school conducts annual audits of the facility and irrigation systems to ensure they are free of water leaks and to identify opportunities for savings. Our school educates students and staff on what should and should not go down the drains.

Our school has the following equipment to help conserve water:

- Low-flow toilets (1.6 gallon per flush (gpf))
- Hi-lo flush toilet valve (liquid up 0.8 gpf, solid down 1.6 gpf green valves)
- Faucets with properly timed automatic shut-off

- Efficient dishwashing equipment
- Air conditioning equipment does not utilize water
- Salt-efficient water-softening practices (such as brine reclaim, cold water bypass, system optimized by professional within 5 years)

Our trails are also on former agricultural land that are at least 60% filled in wetland. Part of our strategic plan includes a 5-year conversation of our prairie trails back into naturally occurring wetland. In the next few years, more of our current wood chipped trails will be converted to boardwalk, as the prairie land - which floods every spring - is turned back into marshland and fen. We hope to control the annual flooding that now occurs as a result of former wetland being converted to farmland a century ago. We are building boardwalks and installing rainwater divergence systems.

The dramatic loss of the ash trees on our property - more than 1,000 trees over the next several years - may actually have one benefit. Our plan is to leave the trees on the ground in many areas, where they will turn into sponges, preventing flooding and helping to reabsorb water back into the ground slowly, and in ways that will benefit the surrounding eco-system.

These largescale projects are directed by the Director of Conservation and Green Facilities and much of the processes involve the entire staff, who must have a full understanding of what is happening on the land and why. Although the extent to which we communicate these activities to our preschool children is fairly simplified, we do also explain these activities and the ecological impetus behind them to our preschool parents, and so we feel that the center is not only modeling water conservation, we are reaching out to our community of volunteers, visitors, members and preschool parents to explain to them the why and how.

While we have 185 acres, including wetlands to help conserve water, our school also uses the following landscaping practices:

- use of alternative water sources (ie. grey water, rainwater) for irrigation
- use of a smart irrigation system that adjusts watering time based on time of day or weather conditions or does not irrigate landscape
- use of mulch and native plants to reduce watering needs
- landscaping designed to be water-efficient and/or regionally appropriate
- use of broom or blower to clean driveways and walkways, careful application of fertilizers to reduce runoff impact

We recently got a grant to develop a water catchment system and rain cistern to develop an educational water conservation garden. In addition, our school has the following runoff or stormwater practices:

- Rain garden
- Rain water collection and use for irrigation
- Downspouts directed to vegetated areas
- Mowing, leaf collection, and snow removal managed to keep removed materials off impermeable surfaces
- Use of leakproof lids on dumpsters or other outdoor waste collection bins

Our school has the following deicing practices that help protect water resources:

- Snow & ice are removed with shovels, plows, or snowblowers before salt is applied
- Salt applicator is not paid by volume of salt applied
- Salt applicator has attended best management practices training for salt application
- Salt equipment is calibrated

- Anti-icing brine is used before storm event
- Salt is only applied when temperature is above 15 degrees F
- Salt is stored in an enclosed location away from surface water bodies including wetlands

Our school has a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure) and taps, faucets, and fountains are cleaned at least twice annually to reduce contamination and screens and aerators are cleaned at least annually to remove particulate lead deposits. Our medication and chemical disposal policies help ensure water quality along with a grease trap or oil/water separator for the kitchen sanitary waste line. We inspect and clean the septic system per state requirements.

Students and staff are actively involved in planning and implementing water conservation and/or protection activities:

Our school and building are located on Lake Michigan, so we are constantly thinking about our actions related to water. As staff, we have seen lake levels rise and fall dramatically overtime. We have written a book about Lake Michigan for our preschool children that discusses the history of the lake, how it came to be, and shows some of the seasonal changes and patterns of the waves and the shoreline.

Staff have participated in training at the Milwaukee Metropolitan Sewerage District, UW-Milwaukee School of Freshwater Sciences, and the aquaponics lab at Growing Power and Sweetwater. They have participated in Beach and Milwaukee River cleanups and assisted with sturgeon releases through Riveredge Nature Center. Recently, Dan Egan, author of *The Death and Life of the Great Lake* gave two separate presentations at our center, and John Gurda presented his book, *Milwaukee: A City Built on Water*.

We begin teaching water conservation through every day practices, such as teaching the children how to wash their hands and to shut off the water between users. This may seem simple enough, but our licensing guidelines actually encourage children to leave the water running until every child has washed his or her hands. We have argued against this, as it goes against our mission of water conservation. We have two rain barrels in our play spaces, and after we show the children how it works, we allow them to collect water from the barrels for play, and for watering our gardens. We have a rain gauge in one of our play spaces, and the classes take turns measuring the daily precipitation, which they are allowed to “radio in” via our walkie-talkies to the land management team.

In fall of 2018, we began installing a rain catchment system alongside one of our play areas that will catch and hold 90% of the water from our nature center rain gutters. The water will be held in a cistern. Once the spout to the cistern is opened, the water will run along a homemade funnel system, through the play space, and out into an educational rain garden. Water conservation, early childhood play, and education will be seamlessly blended.

Perhaps more important than any of this, however, is the impact of our 9-month program overall. We follow the rain water down the ravine and into Lake Michigan and see what happens to our pond levels after a month of drought. The children see for themselves the different depths and heights of the ponds, depending almost entirely on the amount of rain or snowfall we have had. They see ephemeral ponds dry up and vanish, they see frogs in puddles one day that are gone when the puddles disappear, they see migrating song and water birds looking for safe places to build their nests and lay their eggs, and they see the dramatic changes of the Lake Michigan shoreline in every season. They begin to develop an understanding of the water cycle, not by reading about it, but by connecting the clouds to the rain to the puddles to the ravines to the lake, and round again. They follow water from their play spaces, across trails, down deep ravines, and watch it pour into the lake on rainy days. They begin to understand how

vital water is to life, to habitat, and to the survival of so many different species. This kind of understanding has to come first. Later, as the children grow older, they will begin to learn more about what they and others can do to protect, clean, manage, and restore wetlands, waterways, lakes, etc. But first there must be an understanding of the value of water, and we develop that slowly, through daily hikes, observations, games, and above all, play.

Our preschool focuses primarily on the water cycle, and on making connections to the water puddles we stomp in when it rains, to the water we see flowing down the ravine waterfall, to the waves that we chase at Lake Michigan. We also talk about the properties of water, looking at snow and ice, exploring snowflakes under magnifying lenses, forcing snow and ice to melt, freezing water, taking guesses about how many inches of water 4 inches of snow will create, etc. In March, we make maple syrup by boiling down our maple sap for hours, creating clouds full of steam. We talk about the transformation of water into steam, and the children learn the word evaporation.

We also learn about water as a habitat. We go ponding throughout the summer, fall, and spring. We learn about tadpoles, dragonfly nymphs, damselfly nymphs, baby salamanders, water boatman, leeches, fairy shrimp, and more. We catch green frogs and bull frogs, and we hear the song of the toads and spring peepers.

We have recently partnered with the Haggerty Art Museum for a special art exhibition this spring featuring Alexis Rockman and his large mural series on the Great Lakes. The preschool will be creating a large Lake Michigan mural in conjunction with this exhibit, prior to which we will make several visits to the lake, and will explore who lives in the lake, and along its edges. At the event itself, we will lead a handful of family-friendly tours to the lake, will have a story-time program for very young children in which water, Lake Michigan, and conservation are themes, and will include a number of live animals who depend on our local water systems for survival.

Element 1C: Reduced waste production

Focus Area: Recycling & Waste Management

The Nature Preschool strives to minimize the generation of all waste types and has a policy to support these efforts. We did an informal audit where we looked in all of the receptacles around the building to figure out how to implement signage to increase diversion from the landfill. We recycle as much as possible, including: paper, glass, metals, plastic containers, milk and juice cartons. We provide resources and locations for all materials that can't be recycled on-site. In the very few rooms where there are not recycling bins, we opted to have signs to point people in the direction of a recycling bin due to space/usage of the room.

We have an educational three-bin compost system for education that the preschool uses. We use Compost Crusader and compost all food materials, including the preschool, school programs, adult programs, and all other programs including staff food, events, weddings, and birthdays. Our landscaping team uses the compost bins as well. In the last year, we have diverted over 4,005 pounds of food waste from the landfill.

The person in charge of regulated waste disposal maintains current RCRA hazardous waste training, however, because we are primarily outdoor-based and screen-free, our school does not really generate hazardous waste. Our center generates very little and recycles what we can. Our sustainability committee has worked to make our events more environmentally sustainable, has replaced paper coffee cups with

reusable mugs and compostable cups, created composting stations throughout the building, sends emails out letting people know where they can recycle things such as plastic bags (which we seldom use anyway) and generally models for our visitors easy sustainable practices we can all do on a daily basis.

We work with our cleaning service and the Dept. of Children and Families to get our cleaning products, which are more environmentally sensitive than bleach, approved for our classrooms. We have a Sustainability Committee that meets monthly to discuss issues, so that we try to discuss and regularly remain aware of ways we can do better.

Students and staff identify and/or implement changes to encourage waste reduction, reuse, and recycling behaviors:

Our goal is to be a zero-waste school by either re-purposing materials, such as play dough and paper, into new art projects; recycling, or composting everything we eat. We have a dish washer and sanitizer that enables us to avoid paper plates, plastic utensils, etc. And because we eat family style, we do not serve pre-packaged portions.

Staff members assist in education and creating signage with pictures that students can understand. We also communicate our activities and actions to parents, so that they can continue this education at home. More than anything, we make green action and conservation a part of our school culture and daily activities, so that children are simply taught these behaviors as they learn the other school routines.

Preschool students learn right away to compost their daily snack and recycle materials in the classroom. We also teach water conservation in the classroom through hand-washing activities and have a rain barrel and water catchment system as a part of our outdoor play space. We teach that one paper towel is all that is needed, but then we also go outside and connect on an emotional level to the trees that surround us.

In these ways, we help young children make the connection between their individual actions, and the wider, natural community around them. Water is precious, trees are valuable. A big part of our curriculum is based on the concept of community. We teach the children that they are valued, and worthy of beautiful, natural materials. The flip side of this is that they are expected to treat others with the same respect—which includes plants and animals. They are also expected to take care of their surroundings and think about the long-term impact of their actions.

We include composting, soil, earthworms, and gardening into our nine-month program. We celebrate Earth Month, not just Earth Day. And we recently developed a year-long program based on the Emerald Ash Borer, discussing the loss of our ash trees, decomposition, how the fallen trees may benefit the soil, and ways we can reuse some of the logs and branches. Our emphasis is always on cycles and systems, and how loss and decay lead to renewal.

We do not expect 3-, 4- and 5-year-olds to conservation ideas in the same way an adult might. But we find they are often far more compassionate, considerate, and responsible than many adults by learning these lessons at the same time they are learning other useful skills, such as how to zip their coats and take turns.

Element 1C: Use of alternative transportation

Focus Area: Transportation

The preschool offers:

- Designated carpool parking stalls.
- Bike racks, showers, lockers, and/or other bike amenities.
- A well-publicized, no idling policy that applies to all vehicles (including school buses).
- Consistent, clear communications to families regarding transportation options and policies.
- Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.
- promote family carpooling

When school buses and motor coaches are at the Center, we request they shut off their engines, explaining that we are concerned about both air and noise pollution. We encourage parents to carpool as much as possible, and as staff we try to carpool both on our way to work and to special events and conferences. We have a limited area in which to park at our school.

We do not provide bussing to our preschool (although our center does pay for the Next Door Foundation to bus their K4 children to us). Our challenges are that we have a half-day program, aimed at small children. Parents bring them and take them home again, and children at this age require harnesses or car seats, making even the simple act of car-pooling more difficult. We did purchase a few booster seats in order to help families who might suddenly require another family to drive their child home, and our center is in the process of creating a pedestrian entryway, hoping to encourage more visitors to arrive on foot.

We encourage families to be safe and upon entering the property to turn off all music, reduce speed to 15 mph and make the slow drive toward the building part of an emotional and mental unwinding.

We did purchase a new van for transporting our live raptors around town. This new vehicle is much more fuel efficient and low-emission than the 15 year-old van that was in use prior to this purchase.

Pillar II: Improved Health & Wellness

Element 2A: Integrated school environmental health program

Focus Area: Environmental Health

The school has a formal health and safety program, does not have labs using chemicals, and takes action to improve contaminant control and ventilation including:

- a comprehensive indoor air quality management program that is consistent with EPA’s Indoor Air Quality (IAQ) Tools for Schools,
- preventing exposure to asthma triggers such as mold, dust, and pet dander,
- energy recovery ventilation systems to bring in fresh air for use in the HVAC system,
- CO alarms that meet the requirements of the National Fire Protection Association Code 720,
- visually inspection all our school’s structures on a monthly basis to ensure they are free of mold, moisture, and water leakage,
- maintaining indoor relative humidity below 60%,
- moisture resistant materials/ protective systems installed (i.e. flooring, tub/shower, backing, and piping),
- no wood structures on school grounds containing chromate copper arsenate,
- combustion appliances that are annually inspected to ensure they are not releasing carbon monoxide OR not applicable - the school does not have combustion appliances

All of the ground contact classrooms at our school have been tested for RADON within the last 24 months. RADON tests for our school tested at or below 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

We do not have areas within the school that use chemicals other than cleaning products. We use environmentally-friendly cleaning products and Lemon Quat to sanitize our classrooms.

The Schlitz Audubon Nature Center as a whole has a pest management policy that meets the IPM guidelines and limits the use of pesticides at all times. The Center also has an integrated pest management (IPM) coordinator and has an employee who is certified to apply pesticides. We never apply pesticides in areas accessible to the children in our program. Pesticides that damage our waterways are never used. When we faced an explosion in the mosquito population this fall, we purchased 50 mosquito face nets for the children rather than increase our use of insect repellents. We also work to educate parents on the ingredients in different insect repellents, as well as essential oils, which sometimes get used to excess on children's skin.

Our school makes available copies of pesticide labels, copies of notices, material safety data sheets (MSDS) and annual summaries of pesticide application in an accessible location. Our school prohibits students from entering a treated area for at least 8 hours after the treatment or longer if required by the pesticide label.

Element 2B: Nutrition & Fitness

Focus Area: Health & Wellness

The school promotes nutrition, physical activity and overall school health:

- uses the Got Dirt? or Got Veggies? Resources
- has students spend at least 120 minutes per week per year in school supervised physical education
- provides physical education outdoors at least 50% of the time
- integrates health measures into assessments
- offers opportunities for students to be physically active outside of physical education classes (e.g., recess, open gym, before/after school programs, classroom activity breaks)
- promotes or supports walking and bicycling to school
- promotes hand washing for staff and students
- has Physical Education curriculum based on state standards and grade-level outcomes for physical education
- has a policy for healthy classroom snacks.
- prohibits advertising and promotion of less nutritious foods and beverages on school property.
- serves organic fruit from local farmer's markets.

We buy snacks from local grocery stores, farmer's markets, and the Peach and Orange truck from Georgia (Tree-Ripe Citrus). We also buy commercial crackers and cereals. We cook some of our own food (such as homemade applesauce or pesto) but not on a daily basis.

Because we only serve snacks, not full meals, in our half-day program, we do not play an extensive role in the daily nutritional lives of our students. We serve fresh produce and organic grains, family-style for

snacks and have adapted our snacks over the years to meet family preferences (vegan, gluten-free, no added sugars or artificial sweeteners) along with serving allergy-compatible foods to meet the needs of children with dairy, wheat, legume, and nut allergies. We also cook with the children and eat from our outdoor garden during the fall season (tomatoes, tomatillos, basil). Staff attended a nutritional workshop with a focus on the Wisconsin child care licensing guidelines.

All staff take CPR and First Aid training and we have an AED on site. State licensing forbids us to provide medications to children without completed authorization forms; we are able to administer allergy medication, inhalers, and epi-pens only with this pre-authorization. In the case of an emergency, an ambulance is able to be at the center within 5 minutes. We do have a written policy that children may not be in our program while experiencing vomiting, fever, or excessive coughing, and we are required to post information regarding communicable illnesses outside our classrooms, without mentioning the affected child by name. We have a Parent-Handbook that provides details to our parents about our Health Policy.

Staff are encouraged to spend their breaks outside and we provide teachers with emotional support by way of staff outings, social gatherings, and general classroom support. We also keep cough drops, Emergen-C, tea, chocolate, and hand-warmers in the staff office. We try to create a close-knit community of teachers and administrators who help each other out, provide professional feedback and assistance, and who enjoy each other's company. We tend to be united through a common passion and mission, which makes the overall working environment more appealing.

We encourage staff not to come to work when they are sick! We have a sub list, which we make use of, and step in to help each other when someone is unwell. We wash our hands a lot, and we share resources, such as the benefits of elderberry, oregano, or other tinctures. As a rule, our teachers tend to be healthy, due to the daily exercise and fresh air they get. Perhaps because they work at a Nature Center, they are more inclined to hike and eat healthily in their daily lives. But they do get a lot of contagious viral illnesses due to the nature of their jobs working closely with young children, and so we also make a point to disinfect our classroom surfaces as much as we can in addition to taking care of ourselves!

Staff received Peace and Conflict Resolution training with the Milwaukee Peace Action Center and training by Physical Therapist, Pat Barina, on the link between large motor movement and child brain development, which was open to the general public, current and alumni preschool families, and other area educators. We have also had training in ways in which nature play supports child brain development, balance, emotional health, and self-regulation.

We hold an annual retreat for our preschool teachers that includes time away from school, cooking, relaxation, sharing ideas, and visits to other schools and natural areas. We have weekly meetings on Friday afternoons during which teachers can share their week, discuss challenges and triumphs, and connect with one another on a social as well as professional level.

We try to guide young children in being more self-aware. This means knowing when they need to use the bathroom, understanding the value of hand-washing, covering their mouths when they cough or sneeze (using their arm, not their hand) using tissues to wipe their noses (and throwing them away), flushing toilets, and being able to communicate to us when they feel unwell for any reason. We also encourage children to dress for the weather, and to take care of their own needs: if they are too hot, they can remove a layer; if they are too cold, they can put on their mittens. We do not share hats or scarves, we change into warm dry clothes after getting wet and cold, and we try to make sure we are balancing active, busy play with moments of rest and silence.

As a private preschool, we follow the Best Practices guidelines established by both the Natural Start Alliance and the National Association for the Education for Young Children, and we also follow the

Wisconsin Department of Children and Families requirements for health and nutrition. We believe that we far exceed the state standards for physical movement.

Outdoor education, physical activity, and nature-based recreation opportunities are available for staff and students, including: daily hikes, running games, tree climbing, gardening, sand boxes, slides, yoga, dance, canoeing, balancing on logs and boulders, boot skating, ice skating, sledding, snow shoeing, and Tai Chi.

We are planning a guided medicinal herb walk later in the school year. We also have a Full Moon Hike planned for parents, a Winter Solstice Hike planned for current and alumni families and staff, and a Spring Equinox Hike, also for current and alumni families.

We hike daily, transitioning from short distances at the start of the year to a mile by the end. We talk about how important it is to care for ourselves and each other. We regularly do yoga and practice mindfulness. We play outside in all weather, and spend at least an hour, up to 2 hours and 45 minutes outside daily (unless the weather is below zero, or there is lightning.) We teach families how to do tick checks.

We encourage children to learn the difference between risks and hazards, so that they can learn to navigate outdoor challenges safely. We want children to learn how to feel safe and confident in nature, but to go forth and explore using knowledge and common sense. We believe that this contributes to greatly to a child's well-being and health.

We have a written anti-bullying policy at our preschool which has expanded to include expectations for parents, teachers, and volunteers. Because our emphasis is on community-building, we have a daily list of Classroom Agreements that the children put together, which includes being kind to feelings, kind to bodies, and kind to other living things. Our expectations for parents is to support the mission of the school, to help guide the children and lead by example. We have also, sadly, had to make it clear that if parents bully or harass one another, their child's place in our program may be in jeopardy. We have a social media policy that includes compassion and consideration, as well as being mindful of, and respectful of, other parents' ideas regarding their child's digital footprint.

Pillar III: Effective Environmental and Sustainability Education

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems

Focus Area: Environmental & Sustainability Education

Environmental Literacy is one of our core intentions. We have developed an Assessment Tool that places Environmental Awareness at the forefront. We use a continuum, with "does not show an interest in the natural world" at one end, and "shows a strong interest in the natural world and takes strides to protect it" at the other. We pause three times a year to assess each child in our program and discuss as a team how we can help move the children from one end to the other in a way that respects their developmental needs and individual personalities. We have noticed that while we often see the children moving across the continuum throughout the year, they often take a few steps back in the middle of winter. We have yet to determine if this is due to where they are developmentally - testing adults, for example, by knowingly breaking branches or stepping off trail - or if this is a reaction to the dramatic temperature difference that often accompany a Wisconsin winter.

We have daily access to the Lake Michigan shoreline, prairies, woodland, oak savanna and ponds. We have 3 outdoor play spaces for children ages 2-6, which contain natural climbing structures, digging

areas, a mud kitchen, water play, log cabins, and garden beds.

Our curriculum is play-and-nature based, built around the premise that children ages 2-6 need to interact with nature in a way that is mostly unstructured and inquiry-based. Our mission is to help children develop a lifelong environmental ethic through positive interactions with nature, which include some teacher-led experiences, such as ponding, maple sugaring, etc. as well as healthy daily doses of play and self-directed exploration.

We spend between 50% and 100% of our time outdoors on a daily, year-round basis. (Our outdoor temperature cut-off is negative one degree.) We team teach, with 2 teachers for every 16 children. One teacher has an environmental background, the other has an early childhood background. Together, the teachers support one another in addition to guiding the children. Our curriculum is based on best practices in early childhood education and environmental education. As a nature-preschool, our entire school was created and continues to operate with the goal and purpose of being outside in nature as much as possible.

Our pre-school offers programs for children between 6 months and 6 years (although the nature center overall has programs for K-12 and adult), but being nature-based, we incorporate environmental concepts into everything we do. Our Audubon Babies program is primarily sensory-based: we give small children opportunities to touch, smell, listen, and experience nature with their whole bodies. We then build on this as they get a little older, encouraging them to pick up wood chips, acorn caps, play in water, stomp through mud, and interact with nature with the companionship of a loving adult.

Once the children enter preschool, the curriculum becomes even more nature-focused. We begin each day outside in our nature-based play areas - these include gardens, trees, logs, a water area, digging area, mud kitchen, trees for climbing, and lose parts such as rock, sticks, and branches. We also provide tools that help the children learn to interact with nature - and each other - in positive ways, including shovels, spades, watering cans, dishes, twine, scoops, brooms, trucks, and wheel barrows. We then gather as a group, sing, and stop to listen and observe nature all around us. Then we head out for a hike. We may visit Lake Michigan, we may explore autumn leaves, winter snowflakes, or look for nests. We note what's different than before. We sit silently sometimes, we run at other times.

Our curriculum is all about creating relationships - relationships between children and their peers, relationships between children and their teachers, and relationships between children and nature. We want them to feel comfortable outside, we want them to experience awe and wonder in the natural world, and we want them to grow curious about why nature behaves the way it does. Once this initial connection has been established, we look at all that we can do to help protect nature, to keep it healthy, and why things sometimes go awry - such as when the EAB arrived on our property and we began losing our ash trees. At the same time we are exploring our own role in nature, we look at all the ways nature supports us in return. We do not use the terms Adaptation or Conservation. But we do teach the principles behind them.

Eventually, we teach specific topics related to what's happening around us: we experience the entire maple sugaring process, for example, tapping trees, collecting sap, boiling it down, and making syrup. We make sure to ask the tree permission before hand, and to thank it when the season ends. We learn Native American stories about maple sugaring. We learn what evaporation means. We also raise monarch butterflies in our classrooms in September, learning about metamorphosis, and following the path of the monarchs as they fly to Mexico. We also study Lake Michigan, seeing how it changes on stormy days versus calm days, visiting its ice caves in winter, looking for fossils on the beach, and dragging magnets through the sand in search of iron and magnetite. We also learn about prairie burns and are allowed to watch the prairie burns each spring from a distance. We use the ash and charcoal from these burns to make art, and we visit the prairie every few days to see its rapid transformation from scorched black earth to something green and growing.

One of our goals is to create “junior land managers” by helping very young children (ages 3-5) feel invested in the land. Not only are they given opportunities to play and explore in a natural landscape, they are asked to help assess the safety of their surroundings, and to help take care of the trails, plants, animals, etc. This means that they feed and monitor animals in the classroom; they participate in bird identification; they scoop macro invertebrates from the ponds; they pull invasive garlic mustard; they monitor our rain gauge on a daily basis; and they report to our Director of Conservation any concerns they have, including broken and fallen branches on the trails or plays paces, or the presence of an injured animal.

They also send questions to our team of nature center educators and foresters regarding the emerald ash borer, unusual fungus they may find, or other nature questions that arise. We want them to experience the types of activities, citizen science projects, and concerns that come up in the world of environmental conservation and management, but we want to keep these age-and-developmentally appropriate.

We want children to ask questions, but we also want them to help provide answers. We find that the more children feel a part of the process, the more likely they are to protect, rather than pull, the prairie plants. The more they participate in the care of living animals, the more carefully they hold the spotted salamander. The more they learn to care for nature and to take responsibility for it, the more they turn around and teach their parents, friends, and siblings to tread carefully, and treat the natural world with respect. We also find that by simply repeating visits to various spots throughout the year, children naturally gain an understanding of key concepts such as migration, hibernation, habitat, and adaptation because they are able to develop a connection to it, and to see the transitions and changes that occur not just seasonally, but day to day.

We front-load our program, never assuming that a newly arrived 3 year-old knows how to hike, hold a net, or refrain from damaging the surrounding landscape. We spend a lot of time learning how to turn the water on and off, how to hike safety, how to touch things gently, and we read books with a compassionate message, such as *Hey, Little Ant*. Once we feel the children can walk without falling, pushing, or getting tired, we are able to visit the ponds and explore who lives there. We create art from autumn leaves. We sing lullabies to the turtles and frogs when the ice appears. We scaffold our program, moving toward the goal of increasing environmental literacy over 9 months in conjunction with greater self-confidence, physical coordination, and social/emotional competence. If we feel a group has had a set-back in terms of treating nature with respect, we stop, and go back a few paces.

We also model as much as possible. We touch things gently and carefully. We ask questions, but do not provide all the answers - instead we might pull out a guidebook and look things up with the children. We turn lights off, water off, we pick up litter that we find outside, we keep our feet on the trails, and we encourage positive, curious interactions. (If we find a giant invasive slug to be disgusting, we keep our disgust to ourselves.) We find that both children and parents respond well to this modeling, often deciding that a cold rainy day is a cause for celebration simply because their teacher is excited by it. As with so much that happens in Nature Preschool, we are creating a foundation for learning that future environmental educators and classroom teachers will build upon.

We have an after school program that current and alumni children are welcome to attend: we offer it once a week from 4-5:30, for children ages 5-8. It includes free play in one of our outdoor play areas, along with a focused nature activity. We also have a program called Nature Mondays that meets on Monday afternoons, 1-3:30 for children ages 4-6. It is modeled after our Nature Preschool program, and is offered as a 6-week series, 4 times a year. We also offer about 35 4-day summer camps, and 6 single morning programs in summer called Lake Michigan Fridays. Each of these programs can take up to 16 children and are almost always full.

Our teachers attend Master Naturalist training through the state of Wisconsin, and also attend the national Nature-Based preschool conferences every year. We are Reggio-inspired, which means we often attend Reggio-Emilia conferences and workshops. We have attended Nature and Early Childhood Education symposiums at Morton Arboretum and the Chicago Botanic Gardens. And we have participated in 3-day Monarch workshops through the University of Minnesota's Monarch Lab. We also regularly attend the Green and Healthy Schools annual conference. We also participate in sturgeon release, bird banding, bat monitoring, and other citizen science events throughout Milwaukee county.

We have been presenters at the Nature, Gardens, and Stem workshop hosted by the University of Chicago, the Wisconsin Association of Environmental Education, and the Natural Start Alliance. We have also published articles on how to use nature to teach and strengthen early literacy, self-efficacy, math, and motor coordination. We are also one of the founders of the Wisconsin Nature-Based Early Childhood Association (WiNBECA) and run workshops for educators on how to teach outdoors, as well as ways to bring more nature programming into the classroom. WiNBECA members include Woodside Elementary in Sussex, WI; Ridges Sanctuary in Door County; the Urban Ecology Center; the Aldo Leopold Nature Center; and Riveredge Nature Center.

Memberships include:

- Wisconsin Association for Environmental Education organizational member
- North American Association for Environmental Education
- Children and Nature Network
- Natural Start Alliance
- WiNBECA
- NAEYC
- National Audubon Society
- WECA
- International Association of Nature Pedagogy

Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills

Focus Area: Environmental & Sustainability Education

We use nature to teach simple mathematical concepts, such as counting, weighing, measuring, sorting, and patterns. This is done through hands-on investigations and play.

We provide tape measures, rulers, scales, and make math games and sorting games using pebbles, shells, pine cones, sticks, etc. We trace shadows, we compare our heights to sunflowers, we figure out how wide the trees are. We also use compasses to orient ourselves.

We use maps and follow trail makers as a part of our emerging literacy, and look for letters and shapes in nature. We trace letters and designs in the dirt and sand with tools such as sticks and feathers.

We explore patterns by looking at life cycles, especially those of butterflies and frogs, along with the cyclical patterns of nature and the water cycle.

We follow water downstream, learning about gravity, and see where the water from our ravines empties into Lake Michigan.

We learn about subtraction when we experience maple sugaring, as we subtract water from sugar.

We learn about the properties of water when we watch ponds freeze over, then melt, and when we create steam in our maple sugar evaporator.

We also recently lost 68 ash trees from our play spaces due to the presence of the Emerald Ash Borer. Not only did we count all the trees with large orange x's on them, we subtracted them again once they fell, and we spent a full year learning about the EAB and why we had to fell the trees in the first place.

Element 3C: Development and application of civic knowledge and skills

Focus Area: Community Involvement

Students participate in civic and community engagement projects:

Three of our teachers work closely with Monarch Watch, a program out of the University of Minnesota, and we offer both a week-long summer camp as well as a month of monarch curriculum in early fall, based on this program. Children learn to identify milkweed, monarch eggs, and the multiple stages of monarch caterpillar development. They watch both the chrysalis stage and the eclose stage, and participate in monarch release.

We follow the path of the monarchs via Monarch Watch and other websites, as they head down to Mexico, and we share this information with our preschool families as well, so that the natural history and the cultural significance of the monarch can be understood and celebrated by all. In the summer of 2018, we installed a Monarch Way-station, which will become a teaching garden for the children as we learn about pollinators and their habitats in greater depth. The funding for this garden came from the U.S. Department of Agriculture.

In 2019, once the garden is more fully established, we are planning a Monarch Day celebration with our preschoolers and their families. We hope to encourage more citizen science among our families, and will provide pop-up houses and other information to help parents and children become more involved at home in monarch conservation.

In the spring of 2018, our preschoolers began measuring precipitation in partnership with this organization: <https://www.cocorahs.org/>. We check the rain gauge every day and record the numbers. We will continue this when the new school year resumes.

In addition to these citizen science programs, our preschoolers keep track of the birds we see, tracking species from fall to winter to spring. We will chart the birds on the center's main bird chart, adding our preschooler's observations to those of the daily visitors and bird watchers.

We also discuss invasive species, taking time to pull garlic mustard in the spring, remove the trapdoor snails that are destroying our ponds, and we frequently stop to assess whether or not a habitat is healthy and thriving by examining the soil, looking at the diversity of plants, and drawing conclusions about how many animals use and depend on that space.

The goal behind these programs is to lay a foundation for deeper education in the years following preschool. We are hoping to connect children to the wider world by making them aware first of their own community, and second, how their community relates to other communities. We want them to feel

compassion for nature, and to appreciate the mission of conservation, without necessarily framing it in those terms. While we are never overtly political with the children in our program, we think it's important for them to understand that butterflies don't observe borders, and so we want them to get excited when the monarchs leave Milwaukee, head to Texas, and then fly across the Rio Grande river, where they are welcomed with music and celebrations in Mexico.

We want them to get excited about collecting data, such as measuring rainfall, so that later, they have some experience with the process as they progress into more serious science.

It is important to us that we keep our curriculum age-appropriate. But we believe that by laying a strong foundation in observational skills, small acts of conservation, data collection, and developing personal relationships to nature, we will help create a new generation of people who care about the land, and who have the motivation - as well as the skills - needed to protect it.

School staff participate in local community-based projects:

We participate in the Lake Sturgeon Reintroduction program through Riveredge Nature Center; urban hiking events through Urban Ecology Center and partner with them for a citizen science bird banding program; and assist with Bat Monitoring through Wehr Nature Center. Several of our teachers assist with monarch larvae monitoring, sparrow identification, dragonfly and salamander citizen science activities, as well as ongoing bird migration data entry.

Our preschool is involved in a small number of community outreach programs and partnerships, including SPARK, Compost Crusaders, Next Door Foundation, the Haggerty Art Museum, The John Michael Kohler Arts Center, Indian Hill Elementary School, and the Malaika Early Learning Center.

In July, 2018, our Nature Preschool partnered with the John Michael Kohler Art Center in Sheboygan to co-host a three day workshop on nature-based art and early childhood education. The workshop was aimed at art educators from throughout SE Wisconsin, as well as artists who work with natural materials. It included a visit to the Mary Nohl house and 2 Milwaukee artist's studios, as well as tour of the Nature Preschool and a presentation about ways we incorporate art into a nature-based curriculum.

In August, 2018, we hosted 65 educators from throughout North America, Australia, and China for a tour of our Nature Preschool and outdoor play areas. This was coordinated through the World of Wonder Conference in partnership with the Natural Start Alliance and the International Association of Nature Pedagogy.

In January 2019, we hosted an Environmental Education Fair where we brought together schools in Wisconsin offering unique Environmental Education programs at no charge and invited families who are interested in learning more about these schools as they begin to consider what options are out there beyond the Nature Preschool years.

In June, 2019, our Nature Preschool will help co-host a Nature-Based Early Childhood Education Symposium at the Morton Arboretum in Chicago. We will then host this conference in 2020 for about 200 educators from throughout the state, on topics that include nature and social justice, place-based nature education, climate change, nature play and risk assessment, and nature-based education for children with specific needs.

Our goal is to provide a forum for teachers to explore a variety of ways to teach environmental topics for children of all ages and abilities. We also hope to promote play, experimentation, and authentic inquiry-based learning in an outdoor environment (or in a learning environment that includes access to nature) as a more meaningful way to approach conservation and even STEAM topics compared to textbooks,

worksheets, and the traditional four-walled classroom.

In the meantime, we do offer workshops for parents and educators on a number of topics, including how to teach STEAM subjects in a nature-based classroom as well as information on the link between large motor movement and early childhood brain development.

School-community partnerships:

We have two long-standing partnerships with the Next Door Foundation and Malaiaka Early Learning Center. Both of these programs support students from central Milwaukee—the majority of whom are lower-income African American and Hispanic preschool-aged children—by bringing them to our nature center and preschool on a weekly basis.

These partnerships recently completed their 10th and 11th year, and are grant-funded, 9-month-long, annual programs. We reach about 110 children (ages 4-6) per year through these partnerships, providing play-and-nature-based experiences to urban children who may never have seen Lake Michigan before. We have gotten to know the teachers in these schools quite well over the years, and twice a month our teachers visit their classrooms, bringing live animals and other natural materials to their schools. The goal of this program is to provide nature-based experiences to children often overlooked in the world of nature preschools, which are far too often too expensive for the majority of families to afford. It is also to help children in urban neighborhoods make connections to the nature that exists around their own homes and schools - from neighborhood trees, squirrels, and birds, to the dandelions growing up through the sidewalk cracks.

Our K4 class has worked with the center's SPARK program on a monthly basis for the past 2 years, which is a program aimed at seniors experiencing memory loss. They interact together, singing songs and listening to stories. This year, the center is offering 2 SPARK programs a month, featuring the involvement of 3 different preschool classes (48 children in all).

A partnership with Independence First and Milwaukee Learn and Earn programs employs students and adults with special needs to assist with preschool office tasks including prepping materials, organizing our library, cleaning the family lounge, and caring for our classroom animals.

Going forward, we are also hoping to partner with Penfield's Birth-to-Three program in 2019. Our long-term goal is to create nature programming for children with specific physical needs, either by integrating children with mobility, hearing, or other needs into our current program, or by creating programs for children and families that are age-appropriate and nature-based but provide for some additional support based on the children themselves. How we proceed will depend in part on what we learn as we gather information from Penfield as well as from parents of children with different abilities, as well as the dictates and confines of our preschool license, which is overseen by the Wisconsin Department of Children and Families.