ESD-Net 2030 Global Meeting Fieldwork

2023.12.19

Tokyo Yurikago Kindergarten







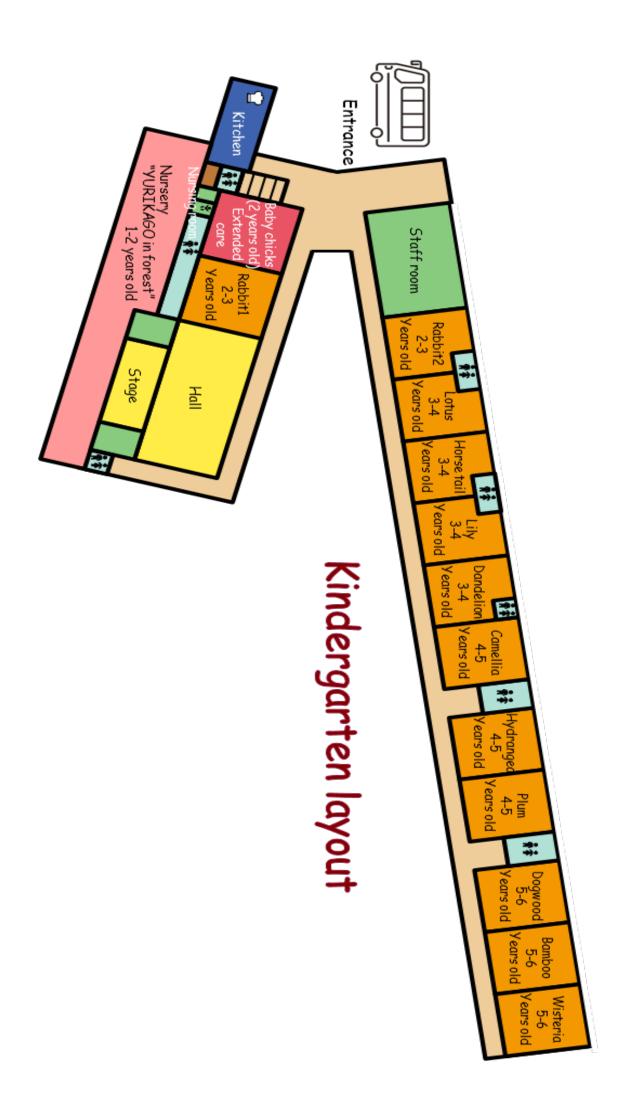






12/19 Activities and Areas

Yurikago



2023.12.19 Main activities

Study hour

Normally 9:00-14:00 (Today is 9:00-11:30 as there is a parent-teacher conference)

• Day care (for those who wish)

8:00-9:00 in the morning, 14:00-18:00 after childcare (Today is 11:30-18:00)

• Class structure (2 groups of 2-year-olds, 4 groups of 3-year-olds, 3 groups of 4-year-olds, 3 groups of 5-year-olds, total 12 classes, 260 children.)

ESD of Yurikago

With the educational philosophy of "(1) Harmonious education, (2) independence of young children, and (3) interaction with nature," Yurikago positions a series of activities that seek to proactively interact with the rich nature of the schoolyard and surrounding Satoyama forest. (A *satoyama* is part of woodland, near a village that provides natural scenery, resources, and environmental learning.) By incorporating interaction with nature into daily life and play, we have placed this learning process as ESD "Satoyama Education. The goals are to promote healthy personality development through practices, to nurture their zest for life, and to act as responsible globally-minded citizens. These are positioned in the curriculum along with annual and monthly teaching plans and are implemented as concrete practices for "Education through the Environment" and "Proactive, Dialogic, and Deep Learning as outlined by the MEXT.

Today's main activities

As the second semester (September 1 to December 21) comes to an end, we will do some reflection and clean up for the new year. (Details on the following.)

Playing with fallen leaves and making compost <4 to 5-year-olds> (Environment, local culture, sustainable production & consumption)

In autumn, the trees in the "forest square" drop many leaves. <u>Students can collect and</u> play with leaves or put them into "leaf pools" to make humus, which will eventually be used as compost for the fields. When beetles and drone beetles lay their eggs in the "leaf pools," children can observe the process of their growth until they leave the nest.

 Cleaning and installation of flying squirrel's nest boxes<5-year-olds> (Environment, biodiversity, climate change)

(Background info) Around 2016, it was discovered that flying squirrels, or musasabi in

Japanese, were coming to play in the "forest square" in the schoolyard. To create a habitable environment for them, the head of the school built and installed nest boxes. Since then, we have been watching attentively by repairing old nest boxes or installing new ones. In 2021, a camera was installed to observe the inside of the four nest boxes as NHK's nature program began filming. Footages could be observed in real-time on a monitor in the observation hut, the Musasabi House. The video footage included scenes of births, child-rearing, and being attacked by predators. Children deepened their attachment to the flying squirrels and became interested in their ecology, inviting experts to the Musasabi House to learn more about their predators (ex. marten and snakes) and how to protect from them. In addition, with the cooperation of Hachioji City, Machida City, and specialists, nest boxes and cameras were installed in a 46-hectare forest adjacent to the Yurikago to investigate how many flying squirrels lived in the entire forest. Children walked around potential habitats, attached nest boxes, and observed.

Thus, children became interested in living creatures, took the matter of habitual environment into their own hands, and took action.

In this way, we were able to confirm their development of "an attitude toward learning" and "an attitude that leads to value judgments as a leader of a sustainable society.

<u>Today, we will remove nest boxes attached to trees that were cut down due to the "oak</u> wilt" that has been prevalent in the forest for the past several years, and install new nest boxes made by children. In addition, the existing nest boxes will be cleaned out.

③ Threshing (Reflection on rice cultivation) <5-year-olds> (Environment, local culture, sustainable production & consumption, nutrition education)

(Background info) Five-year-old children spend eight months growing rice on a rice terrace in the school garden. Together with support from "Tetsuwan Club," a volunteer group of parents, children learn the importance of food and working hard to accomplish things by doing everything from scratch.

In addition, to create a habitable environment for living creatures, children did the following: cleaned and maintained the rice terrace and stream biotope, removed accumulated sludge, rescued various aquatic creatures from there, and learned the dignity of life and that delicious rice is grown in connection with living creatures.

The threshing, hulling, and milling operations used ancient farming tools such as hand threshing, a winnowing basket, and a rotary foot-pedal threshing machine, as well as manual methods from antiquity, which are easy for children to understand. Today, as a reflection of the second semester, we will set up a threshing area and conduct activities. *If you are interested, please join us!

Maintenance of ponds and streams < 5-year-olds > (Environment, local culture, sustainable production & consumption)

In thinking about how to improve the flow of the creek and make it more habitable for living creatures, we have been laying stones used in pottery (plate making) and aerating the sludge in the pond to maintain a good biotope.

 (5) Radish harvest - sun-drying (field crop) <4-year-olds> (Environment, local culture, sustainable production & consumption, nutrition education)

(Background info) Together with children, Yurikago grows about 20 kinds of vegetables in the garden each season. Children are involved in the soil preparation stage. Vegetable scraps from school lunches, rice husks with rice bran from rice cultivation, goat and hare droppings, and cow manure from a nearby farm are added to the field compost. The compost is then plowed into the fields and is used to build the soil with children.

In the fields, children sow seeds, irrigate with rainwater from the rainwater tank and water from the creek, and harvest the vegetables and wheat they grow and care for. These will then be used for cooking and school lunches. Leftover vegetable scraps are used to feed goats and fertilize the fields. Therefore, children learn about the food cycle through hands-on experience.

Today, the 4-year-olds will dig daikon radishes and wash and dry them in the sun to make *takuan* (pickled radish.)

6 Treading wheat and barley plants (wheat cultivation) <3-year-olds> (Environment, local culture, sustainable production & consumption, nutrition education)

It has been several weeks since the 3-year-olds brought vegetable scraps from home to make soil and sow seeds. <u>Today we will be stepping on the wheat so that it will grow</u> strong.

From now on, we will watch them grow and harvest them next June. After threshing, they will be ground into flour, and be enjoyed in the form of suinton, udon, pizza, and other dishes.

ESD Annual Calendar 2023

Age	ESD Category	Activity	Apr.	Мау	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
5-6years old	•Environment •Biodiversity •Local Culture •Climate Change •Sustainable Production & Consumption •International Understanding •Cultural Diversity	Rice cultivation	,	soil coating, puddling	planting	making scarecrows		harvest & hang to dry	threshing, grinding, polishing, selecting	rice ball party (Harvest fair)		Playing with ice in the rice paddies		Handing over seed rice to juniors
		Vegetable cultivation	okra, radish, chinese cabbage	mini-tomato	cooking (fried rice)			spinach, leeks, broccoli	sweet potato, baked potato	cooking (miso soup, garnish)⊠				
		Forest	Aihara Central Park	nanakuni pass	nanakuni pass	nanakuni pass		ochisawa	Mt. Takao	Grandpa oak Wildflowers Program	collecting fallen leaves and making compost	Grandpa oak	nanakuni pass	nanakuni pass
		Wild animal	observation of flying squirrel parenting	Captain Sasaki's creature class		observation of hare	^{observation} of creatures at night	observation of hares, raccoons, foxes, badgers, etc		song of musasabi	International exchange with Indonesian experts on flying squirrels, installation of nesting boxes for flying squirrels	Lecture by Dr.Musasabi		Observation of the birth of a flying squirrel
		Ceramic art				playing with mud		playing with mud	soil sampling , soil sorting	dish molding	stone sketching, firing a ceramic dish, returning stones to the creek			
	•Environment •Biodiversity •Local Culture •Climate Change •Sustainable Production & Consumption	Wheat cultivation			harvest, threshing, and winnowing	milling with a stone mill				cooking (Sui Ton)				
		Vegetable cultivation	soybeans	morning glory		harvesting soybeans		radish, turnip, chinese cabbage	sweet potato, baked potato	making miso	daikon radish dry			potato planting
		Sericulture			silkworm farmin			chinese cabbage	created using cocoons	exhibited at the Silk Museum				
		Forest	nanakuni nass	horse-riding club	plant visit	"Don't throw garbage away!" making posters		put up posters in the forest	Mt. Takao	dyeing of plants and trees, Grandpa oak	collecting fallen leaves and making compost	Grandpa oak	pass	Captain Sasaki's creature class, primitive course
	•Environment •Biodiversity •Local Culture •Sustainable Production & Consumption	Wheat cultivation						soil preparation	grass ashes	sowing wheat	treading wheat			treading wheat
		Vegetable cultivation		bean sprouts				radish	sweet potato, baked potato	cooking (pizza), onion				
		Forest		nanakuni pass	nanakuni pass	nanakuni pass		horse-riding club	Mt. Takao	Grandpa oak	Maruyama meadow	Grandpa oak	nanakuni pass	primitive course
Astro club	•Biodiversity •Local Culture	Playground and Satoyama maintenance		soil coating, puddling	planting	creek maintenance, potato harvesting		playground maintenance	rice harvesting	composting, leaf pools	kadomatsu making, clay art, cleaning			playground maintenance
	•Climate Change •Sustainable Production & Consumption	Flower bed and field maintenance		flower planting field maintenance	maintenance of flower beds and fields			flower planting	flower bed maintenance	kawaraketsumei, making flower beds				

XActivities on 12/19 are listed in red

※"Astro club" and "Flowers & Vegetables club" are volunteer parent-teacher associations.

Yurikago

Description of the Project

Satoyama Education

"Satoyama kindergarten grounds" project involves transforming the kindergarten ground, the largest in the Tokyo area, and its rich natural environment into a Satoyama (village forest)-type area, and using Satoyama Education as a cross-sectional link between food and agriculture education, elaboration education, environmental education, nature education, and traditional culture education to promote comprehensive character development of the children.

Since our foundation in 1975, we have strategically placed a variety of natural elements on the kindergarten grounds, including various biotopes, to encourage the children to come in contact with nature. Our curriculum has also been designed for the purpose of providing children with opportunities to experience nature and to develop "life skills". In 2014, to further advance experiential learning, the kindergarten moved into a richer natural environment. We now have 2.2 ha of land where parents, children, teachers and staff have planted trees together, and have built streams and terraced rice fields as part of a "Satoyama kindergarten grounds" project. The kindergarten is surrounded by 47 hectares of natural forest (Nanakuni-Aihara Special Green Space Conservation Area), which is a unique natural environment inhabited by animals and plants including endangered species such as goshawk, owl, Japanese giant flying squirrel, badger, fox, firefly, golden orchid and more. Our kindergarten incorporates the rich natural grounds area and surrounding Satoyama forest into the children's daily life and play as "educational resources". All such activities are part of our central ESD project called "Satoyama Education".

To give a few concrete examples, all children are involved in growing vegetables, wheat or rice in the kindergarten owned farming fields, according to their age. They start from soil improvement using vegetable waste from home or the school lunch, rice husks or bran that result from rice cultivation, manure from our pet goats or from the local horse riding club, leaf mold from the Satoyama forest and other various organic fertilizers from inside and outside the kindergarten grounds that they can use to prepare a rich soil base. The children then plant seeds, water the field using rainwater from our rainwater tanks or well water and tend to the plants every day. They harvest the vegetables or grains, prepare and cook them and then serve them at lunchtime. The leftovers become compost for the field again, and return to the food chain. These activities are a chance for children to understand the natural food cycle through experiential learning. The older children take part in rice farming on the terraced rice paddies on the kindergarten grounds for a total of 8 months.

Objectives of the Project

- 1. Objectives by category
 - ① The purpose of food and agriculture education and elaboration education is to involve children in all of the stages of farming, thus helping them become aware of the importance of food and the effort required to achieve a goal on the other.
 - ⁽²⁾ From the point of view of environmental education, children are involved in keeping the farm field and the stream biotope clean and functional to create an environment where a variety of living things essential for the health of the rice paddies can live comfortably. In addition, children can learn about the connection between different life forms and learn to respect nature through gathering, breeding, and observing living beings.
 - ③ Traditional culture education aims to provide an authentic experience of traditional Japanese rice farming including husking, hulling and polishing with farming tools inherited from the Edo period and farming methods originating in the Yayoi era.
 - ④ Through collaboration with the local community and parents, such as the volunteer parent group "Astro Club", the guardians conduct parallel activities with the children's supporting rice production while also having the opportunity to understand our educational vision. From the local community, the leader of the Minamino Nature School, a Satoyama conservation group, joins us as an invited guest and teaches both children and their parents about furrow coating and other rice paddy maintenance tasks.
- 2. Educational objectives by age group
 - 1 3-4 years old
 - Fostering interest in food and the natural environment through raising vegetables and wheat from soil preparation to cooking and consuming.
 - 24-5 years old
 - Promoting understanding of the food cycle, and awareness of food safety and nutrition through raising vegetables and wheat from soil preparation to cooking and consuming.
 - 35-6 years old
 - Promoting appreciation of food and living things, and understanding of the importance of spending time and effort through growing vegetables and rice to cooking and consuming them.
 - Encouraging active participation in the food cycle, and thinking about what actions are necessary to make it possible.
 - Promote learning about local traditions and lifestyle from the local people, and through using old agricultural tools and rice cultivation methods.

Supporters & groups: Yurikago Astro Club

Execution

		Activity	Aim				
3-4 years old	1 st trimester	 Cultivation of spring vegetables (Place: garden outside the classroom) Sowing and observing germination. Watering with rainwater from tank. Observing harmful insects & removing them. Harvesting ~ cooking. Feeding vegetable waste to pet goat or making compost. Bringing vegetable waste from home and adding to compost (to be used for autumn sowing in the 2nd trimester). 	 Learn that cultivation requires sun, water and healthy soil. Learn that the vegetables we eat grow from small seeds. Notice that plants are also alive and become thirsty. Notice the importance and responsibility of watering the plants by putting themselves in the plants' place. Learn that flowers and vegetables grow healthy when given rainwater. Notice the difference between rainwater and tap water. Learn that there are insects that attack the leaves. Feel the joy of harvest. Feel the taste of natural ingredients. Promote conversation at home about vegetables and cultivation. Notice the cycle of vegetable waste becoming delicious vegetables again. Learn that it takes time and effort to grow food for eating. 				
	2 nd trimester trir	 Cultivation of summer & fall vegetables (Place: garden outside the classroom) Soil preparation, sowing and observing germination. Watering with rainwater from tank. Observing harmful insects & removing them. Harvesting ~ cooking. Making vegetable stamps. Playing with fallen leaves and preparing leaf mold. Wheat cultivation (terraced field) Digging up the soil and adding vegetable scraps from home. Sowing and observing germination. 	 Understand other living beings by raising larvae of butterflies and other insects that eat the leaves. Become aware of size, shape and amount of vegetables. Learn that the vegetables they grew themselves, harvested, cooked and ate are absorbed as nutrition in the body. Learn about other usage of vegetables than food. Have contact with fallen leaves, and learn that there are various colours, shapes, types, all creating nourishing soil. Learn how the soil feels. Learn what type of food and daily activities wheat is used for. Learn that there are plants that grow stronger by 				
	3 rd trimester	from previous trimester)Treading the sprouts.Observing growth.	being treaded on. · Learn that plants can thrive even under snow and frost.				

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4-5 years old	1 st trimester	 Wheat cultivation (continued from previous year) Observing sprouting, harvesting, husking, sorting Flour milling with a stone mill Cooking (udon, bread, pizza etc.) Playing with straw and using it for product creation Cultivation of spring vegetables (Place: field & garden outside the classroom) Sowing and observing germination. Setting bird protection nets. Watering with rainwater from tank. Observing harmful insects & removing them. Harvesting ~ cooking. Plant dyeing. Field soil preparation Mixing vegetable waste from cooking and goat manure to enrich the soil. 	 Learn about the relationship between seasons (temperature) and plants from observing germination and growth in early spring after winter is gone. Reflect on growth and feel joy at harvest. Come in contact with old food culture and tradition by using the threshing machine, winnower, stone mill and other old tools. Learn that wheat can be used to make various foods and objects from daily life. Learn that how deep seeds are sown and how much soil covers them can affect growth. Learns that birds eat seeds to live. Learn to notice when plants need watering based on how dry the soil is, its colour, and texture, and do it at their own initiative. Learn about various living things by thinking about how "pests" are treated. Rejoice in the harvest and know the taste of natural ingredients. Dye with onion peel from the onion they grew, and learn that onion can be used for purposes other than eating. Think about the connection between nature and everyday life. Learn that goat manure becomes compost and become aware of recycling. 				
	2 nd trimester	 Cultivation of summer & fall vegetables Sowing. Watering with rainwater from tank. Observing harmful insects & removing them. Weeding. Drawing observation logs. Harvesting ~ cooking. Collection of fertilizers Walk to the nearby horse riding club, receive horse manure to use in compost, and use it to prepare soil for the garden. Prepare leaf mold Become familiar with fallen leaves through play and activities such as picking fallen leaves and using them in art projects. Compost fallen leaves collected in the leaf pool. 	 Be able to perform watering, insect detection and removal on their own. Learn about water resources and use always value water. Learn about the purpose of weeding. Observe the growth of various plants, compare, and become aware of changes. Describe the leaves, flowers, stems while paying attention to colour and shape. Be grateful for the blessings of nature and the results of people's effort. Learn which types of vegetable waste turns to compost easily. Have contact with horses at the riding club; follow instructions to prepare the soil. Learn that a cycle is born from the connection between people and animals in the area. Through play, and touching fallen leaves, learn about the lifetime of beetle larvae and such that live inside leaf mold. Experience the process of leaves decaying and turning into soil and learn about worms that keep the soil healthy, such as earthworms. 				
	3 rd trimester	 Field & rice paddy soil preparation Add fertilizers to the soil and mix. 	 Learn through experience that compost such as horse or goat manure, vegetable waste from lunch, and leaf mold enriches the soil. Learn that rice paddies also produce better rice by adding compost just like in the field. 				

Cultivation of spring vegetables	· Understand the cultivation process, record and
<pre>(potatoes, Japanese radish, cucumbers, cherry tomatoes, so on) (Place: field & garden outside the classroom) • Preparing the soil, sowing, and observing budding and sprouting. • Setting bird protection nets and watering with rainwater from tank. • Observing growth, harvesting, drawing observation logs, cooking, adding fertilizers. • Rice cultivation</pre> • Rice cultivation • Rice cultivation (seed selection, sprouting, seed sowing) • Rice cultivation (soil coating, puddling) • Rice cultivation (planting and observing living things)	 share when a change is observed or what kind of care is given to the plants to promote interest in taking care. Pay attention to various vegetables and find out how to care for them at each development stage. Use magnifying glasses and illustration books to learn about the growth of plants and daily phenomena to develop a scientific point of view. Enhance awareness by touching and smelling. Learn the differences in how and where vegetables grow, such as above or inside the soil. By taking part actively in the operations involved in rice cultivation, sweating, sharing knowledge, and cooperating with teachers and friends, children learn that one grain of seed becomes our vital staple food. Notice that the rice that they take for granted every day is the fruit of hard labor and learn to value each grain. Learn that by digging up the soil, oxygen blends with the soil and helps keep it healthy. Learn that there are good and bad seeds. Observe buds and roots emerging from seeds and look forward to growth. Plant each grain carefully and look forward to its growth. Learn the mechanism of water flowing in streams, ponds and rice paddies. Think about various water features such as well water, rain water, tap water, etc. and learn that water is an important resource on Earth. Plant rice seedlings that are big enough for planting carefully and look forward to further growth.
(0	
	 on) (Place: field & garden outside the classroom) Preparing the soil, sowing, and observing budding and sprouting. Setting bird protection nets and watering with rainwater from tank. Observing growth, harvesting, drawing observation logs, cooking, adding fertilizers. Rice cultivation Rice cultivation (tilling) Rice cultivation (seed selection, sprouting, seed sowing) Rice cultivation (soil coating, puddling) Rice cultivation (planting and observing living things) Rice cultivation (making

		Rice cultivation (rice growth)	\cdot Examine the length of the rice plant and learn				
		observation)	that length depends on place and why it is so.				
		Rice cultivation (harvest & hang	\cdot Learn the precautions to take when using a				
		to dry)	sickle.				
		 Rice cultivation (threshing, 	· Learn that rice becomes tasty by drying in the				
		grinding, polishing, selecting)	sun.				
			\cdot Learn that there are many ways of hulling rice,				
			such as threshing machine, wooden chopsticks,				
			stepping machine etc. Use traditional agricultural				
	2		tools and understand the mechanisms.				
	tri.		· Cooperate with friends to do monotonous work,				
	2 nd trimester		such as husking rice using mortar and balls, or				
)ste		polishing rice using wooden sticks and small				
	Pr.	Rice cultivation (rice ball party)	bottles.				
		(Harvest fair)	· Using traditional agricultural machinery like a				
			winnower to remove rice hulls and learn how it				
		Rice cultivation (reflection)	works.				
			Wash rice, cook it on a traditional cooking stove				
			and use cooked rice to make rice balls to learn the				
			value of every grain and be grateful.				
			• Reflect on the 8 months of cultivation and				
			understand that it takes a lot of time and effort to				
		Playing with rice straw	grow the rice we eat every day. • Learn that straw is related to our daily life by				
	ယ္ခ	 Praying with nee straw Preparing the soil for the field 	making straw objects.				
	^d tr	• Add rice husk and rice bran into	 Mix compost to soil for the next year, and 				
	3 rd trimester	the field.	prepare new soil to support the next cohort's work.				
	este	· Add goat manure and rice straw	prepare new son to support the next condit's work.				
	ъ.	compost into the field.					

Type of materials to be used

- · Scoop: Used to till rice field and plow the garden. Nurture children's motivation to elaboration.
- \cdot Sickle: Used for rice and wheat harvesting. Children learn how to use these safely and the amount of strength they need to use them, and experience the joy of harvest.
- Traditional thresher and step threshing machine: Used for hulling rice. Children use traditional farming equipment and learn how it works.
- Winnower, propeller: Used for rice husking, and separation of brown rice and impurities. Children use traditional farming equipment and learn how it works.
- Rice mill, mortar, balls, small bottles, sticks, wooden chopsticks: Used for rice husking and polishing. Children experience farming culture including primitive work to working with modern agricultural machinery.
- Cookware (stove, matches, firewood): Used for cooking. Participate in cooking by direct exposure to fire, including starting a fire, and learn about fire usage, the value and danger of fire.
- Magnifying glass, aquarium, observation case, net, picture book: Used for observing living creatures in the paddies, stream, so on. Through breeding and observing living things, children become familiar with living things and think about how to create an environment that is easy for them to live.

Evaluation to examine the effects of the project on students' comprehension and attitudes

- 1. Evaluation overview and methods
 - 3-4 years old: Set being familiar with plants and animals in the field and feeling joy when farming and eating as evaluation criteria. Evaluate based on drawings, interviews with teachers and family, so on. The expected changes in the children's behaviour include the ability to experience with all senses the surrounding nature and phenomena and to empathize with them, the willingness to participate in activities and have fun, and the nurturing of joy to grow something by their own hands and consume it.
 - 4-5 years old: Set positive attitude towards farming and understanding of life cycles and coexistence with various living things as evaluation criteria. Evaluate based on drawings, interviews with teachers and family, so on. The expected changes in the children's behaviour include positive attitude towards working hard to achieve a goal, awareness of the relationship between self and the natural cycle, humble attitude at poor harvest, awareness of symbiotic relationship with living things, willingness to share limited harvest.
 - 5-6 years old: Set active participation in Satoyama rice cultivation, investigating and discussing points of interest with friends and teachers, trying to find solutions to problems, understanding of the food cycle that connects nature, people and animals, understanding of traditional culture, feeling gratitude for the rice, and the work of farmers as evaluation criteria. Evaluate through interviews with the children, teachers, and family. The expected changes in the children's behaviour include development of problem-solving skills through active learning, positive attitude toward learning, awareness of the symbiosis with the community and nature and of the natural cycle.
- Timing and usage of evaluation
 All activities will be evaluated comprehensively at the end of each school year.
 However, long-term activities such as rice cultivation in the upper year will be evaluated individually at the end of the activity.