

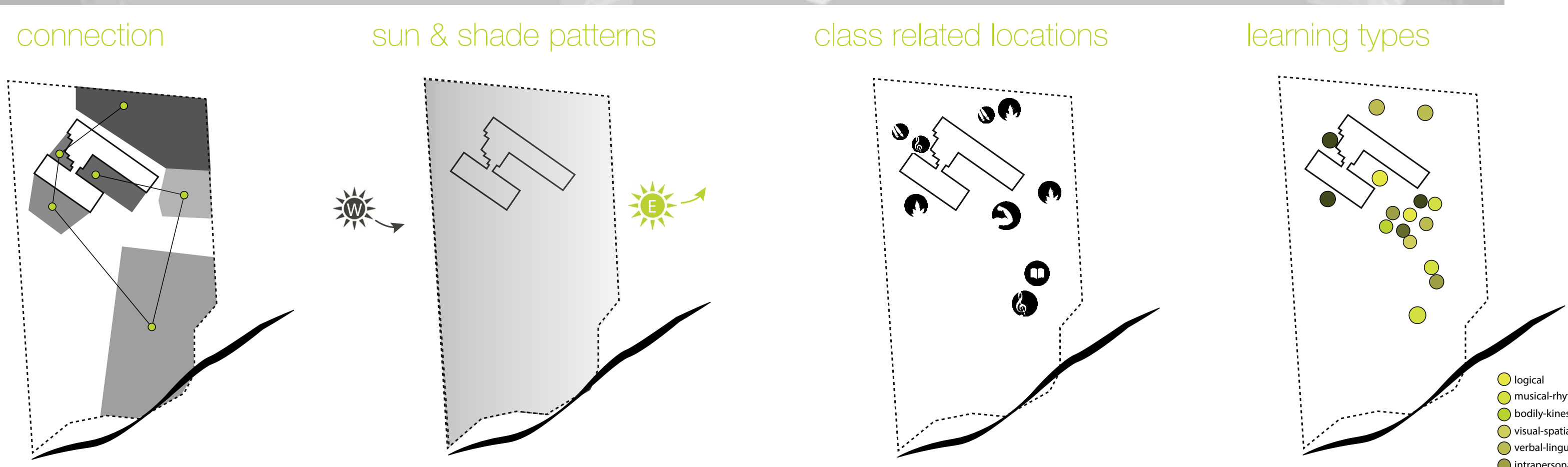


→ The Power of the Circle
 Curriculum & Spatial Relationships ←



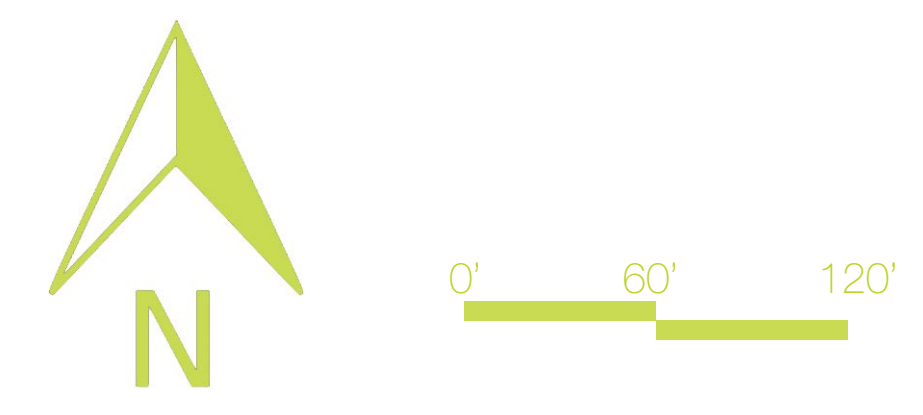
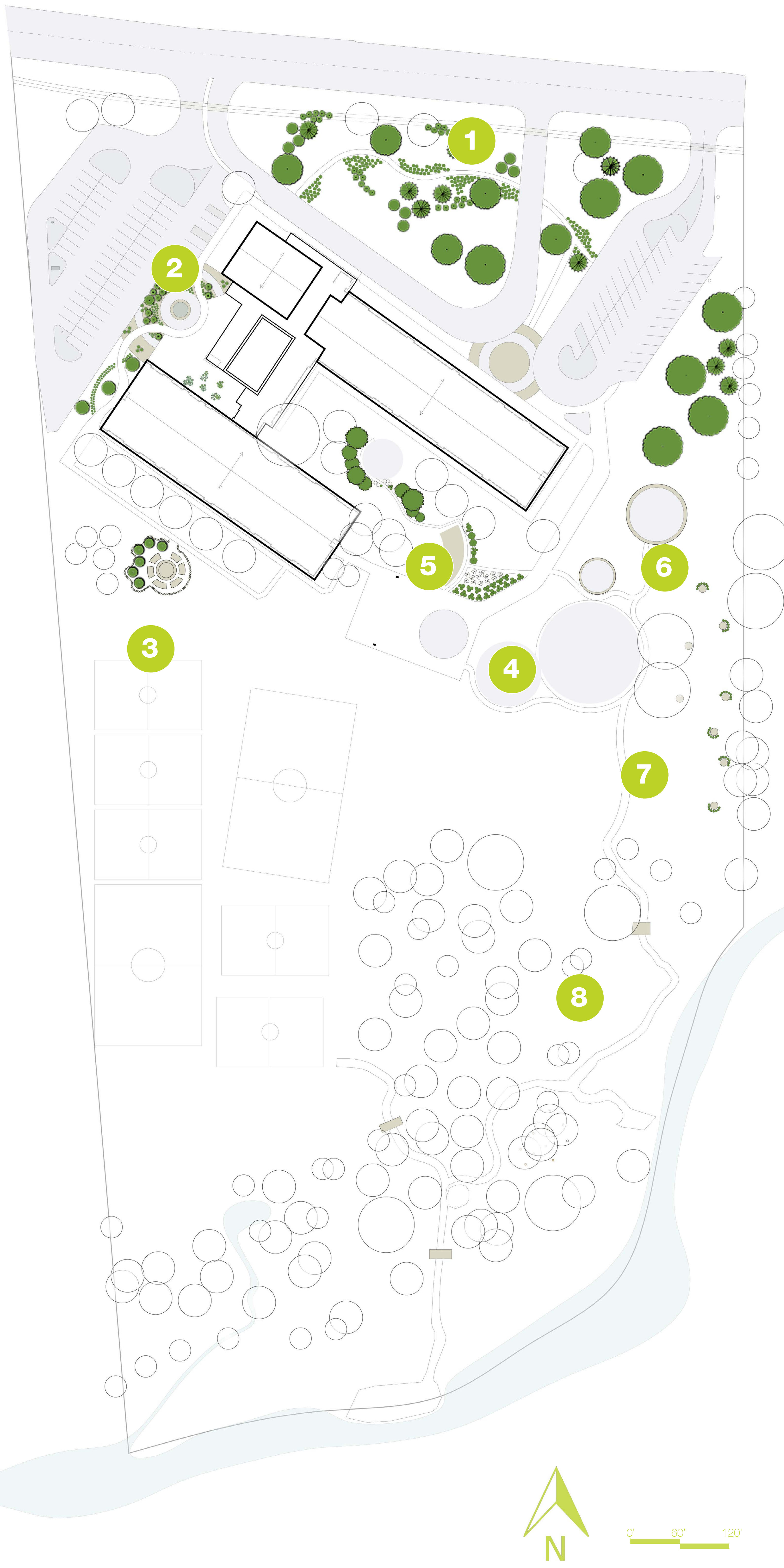
Our master plan and concept focus primarily on the students and their curriculum. Because school is for learning we focused our making their experience of learning the most engaging and interactive to the outdoors. The students at Caroline Elementary are very engaged in their learning and are very passionate about the outdoors. With this in mind we used the school layout and related curriculum to create spaces of learning and fun. The playground area for recess will also offer the opportunity for learning and engagement within their environment and each other. In addition, we are embracing Caroline's strong and beloved school grounds while incorporating design elements that enhance the possibility for learning. In addition, we followed the observed school culture from our trips there and are using that as a key player throughout our design. This age group is in their primary developmental stage mentally. With this in mind we took a deeper look into what affects that positively and negatively. As a result we found that playing with the power of the senses will affect the feeling and learning capability of our spaces. The spaces have strong spatial relationships to specific classrooms and incorporate the curriculum of that grade while encouraging new opportunities for learning with the embracement of the senses.

- kindergarten
birding and habitat
- 1st grade
animal tracking
- 2nd grade
bridges & water
- 3rd grade
culture & geography
- 4th grade
fruit & trout
- 5th grade
moon study



Welcome to Caroline

Alisa Harrison | Hannah Miller



To Play & Learn



The entrance of the school is significant as it acts as a "first impression" for students, parents, and visitors. Playing with topography near the road is a safety element, protecting from the fast traffic, while being a unique visual element. The large Caroline sign installation is an artistic and eye-catching way to represent the school. The plantings provide a visually pleasing and educational planting plan that shows color throughout the seasons. It attracts bird species and allows for habitat. Also, this part of the property allows for a connection between the parking lots.



Bloom Time

- fall
- winter
- spring
- summer

Sun Exposure

- full sun
- parcial sun
- shade

	Paper Birch <i>Betula papyrifera</i>	2' →
	Red Maple <i>Acer rubrum</i>	40' →
	Norway Spruce <i>Picea abies</i>	30' →
	Witch-hazel <i>Hamamelis</i>	2' →
	Winterberry <i>Ilex verticillata</i>	5' →
	Yarrow <i>Achillea millefolium</i>	6' →



color

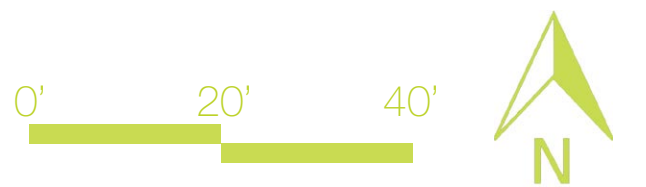
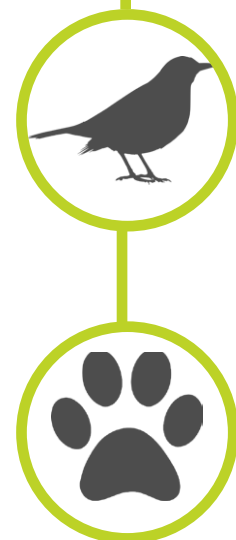
safety

connection





This multi-use patio garden shows students different patterns within the landscape. It attracts species such as butterflies and birds. This space is unique because it can be used for play and class. The stage provides seating for art classes and acts as a location for private music lessons. In addition, it allows for a space to eat lunch outside and a outdoor connection to the cafeteria for the afterschool program as well.



- | | |
|-------------------|---------------------|
| Bloom Time | Sun Exposure |
| fall | full sun |
| winter | partial sun |
| spring | shade |
| summer | |

Red Maple 'Bloodgood'
Acer palmatum

↑ 15' → 20'

Virginia Sweetspire
Itea virginica

↑ 4' → 4'

Ninebark
Physocarpus

↑ 6' → 6'

Japanese Beautyberry
Callicarpa japonica

↑ 6' → 6'

Coral Bells
Heuchera

↑ 2' → 1'

Coneflower
Echinacea

↑ 2' → 2'

Switchgrass
Panicum virgatum

↑ 3' → 6'

Wild Ginger
Asarum caudatum

↑ 2' → 1'

Hosta

↑ 6' → 4'

Lady Fern
Athyrium filix-femina

↑ 2' → 2'

- Japanese Maple
- Coral Bells
- Virginia Sweetspire
- Coneflower
- Ninebark
- Switchgrass
- Wild Ginger
- Japanese Beautyberry
- Fern
- Hosta

pattern

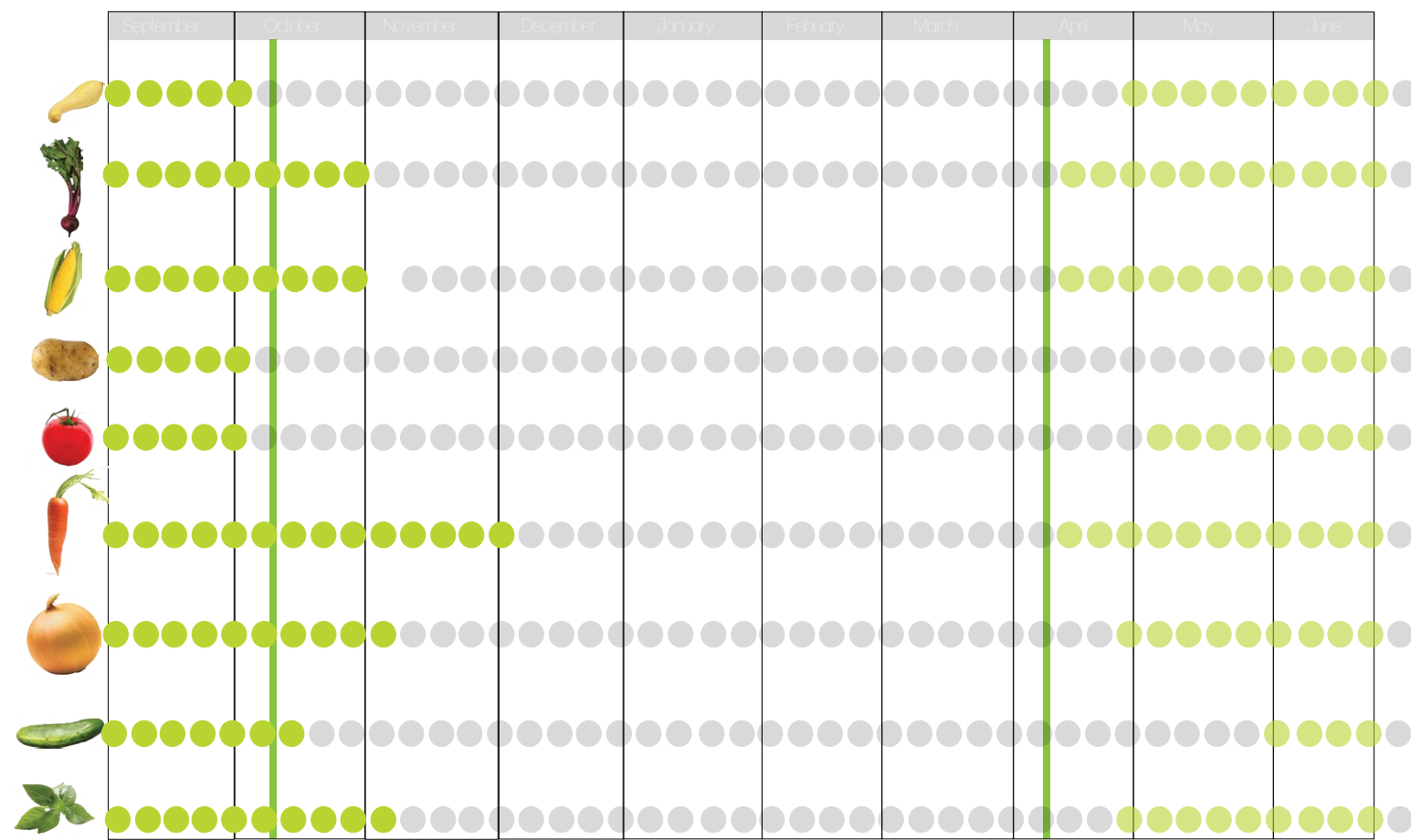
safety

creativity





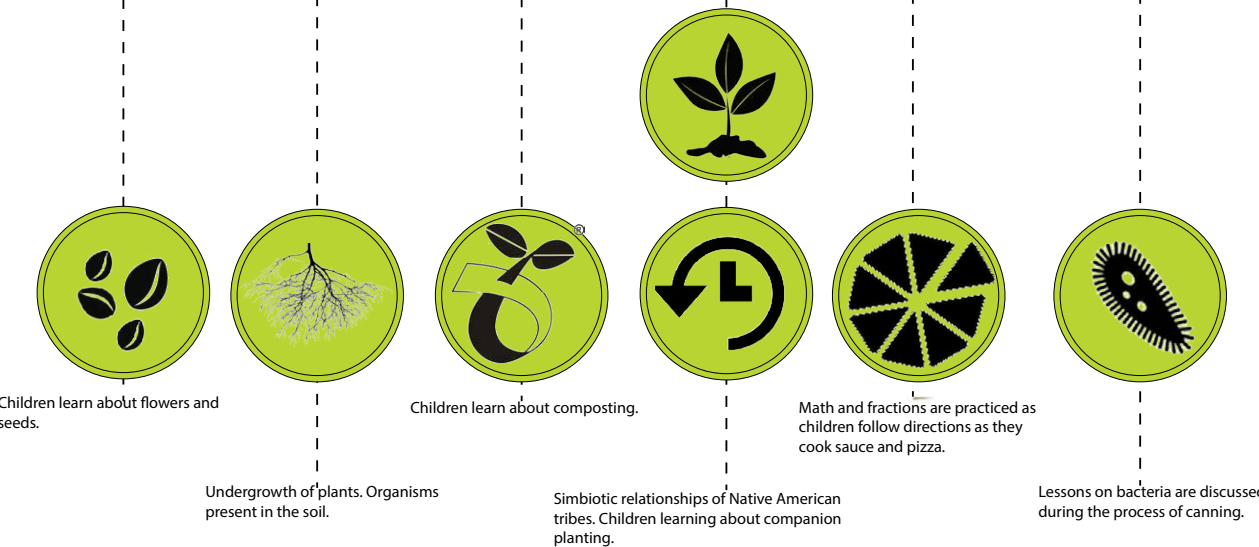
Each class room has thier own planting area in this educational garden. A plant pallette was carefully chosen to ensure each grade will learn about planting as well as incorporating the grades current curriculum. This plant pallette ensures that each harvest and activity will occur during the school year.



K 1st 2nd 3rd 4th 5th



● Time of Activity
● Time of Harvest
● Time of Plant— First Last First



3

Watch it Grow



Reusing and recycling the current playground is an effective way to create a new exciting play space. During the work shop many students told us that they wanted a trampoline. This design incorporates a suken in trampoline with a playful overhead structure. A sundial design painted on to ground will allow for further exploration of the moon study curriculum, allowing a more hands on learning experince.



play

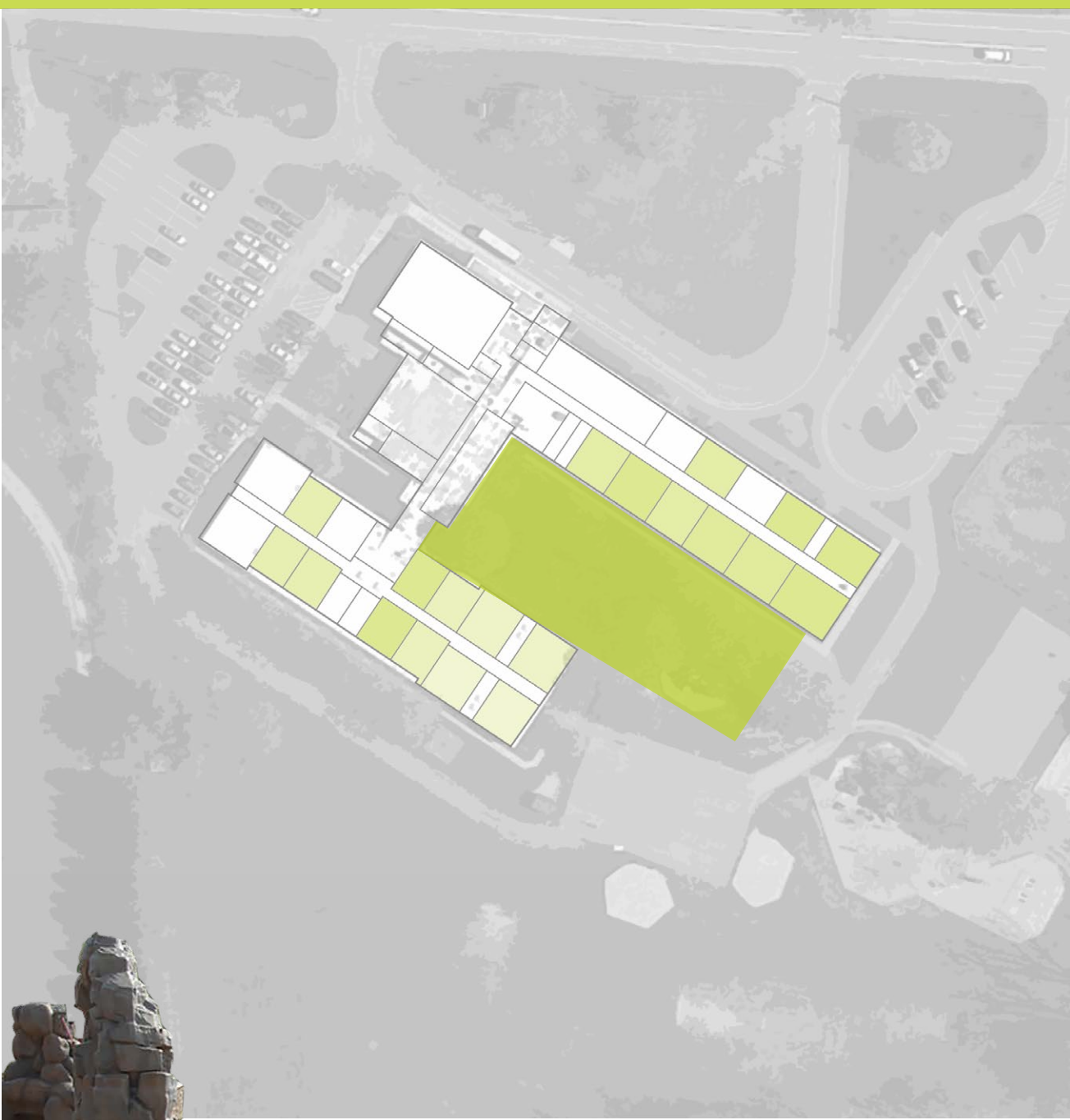
adventure

reuse



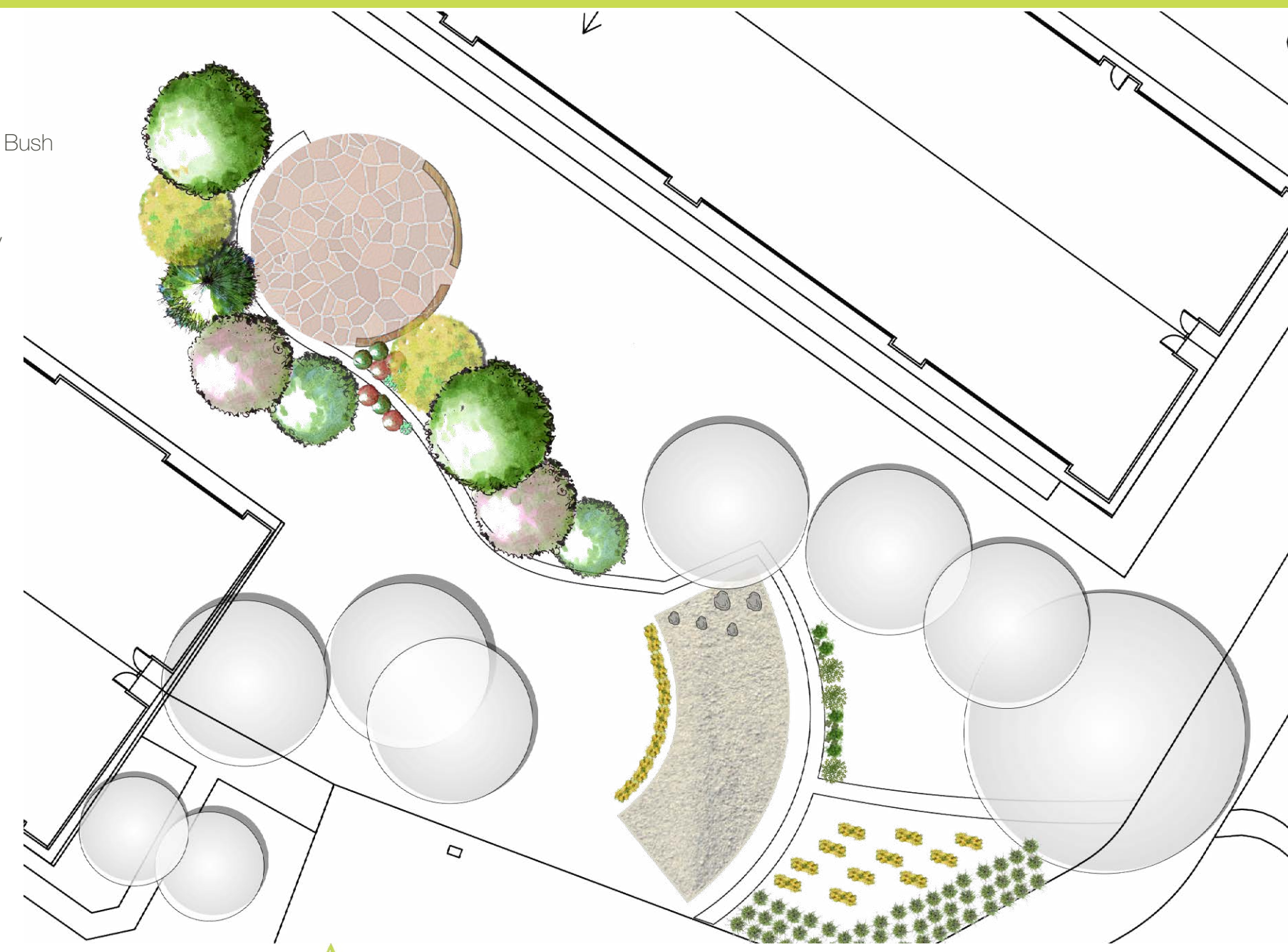
4

A New Way to Play



The sensory garden is located in the middle of the courtyard creating easy access for all users. This garden features plants with many textures, scents and edible treats. As you enter the space the aroma of lavender and sunflowers creates a sense of well-being before your travel down the sensory path. Plants were carefully selected that intrigue the senses through color, touch, scent and taste.

- London Plane
- Money Tree
- Paper Birch
- Paper Bark Maple
- Fountain Grass
- Feather Grass
- Raspberry Bush
- Rosemary
- Sunflower
- Lavender
- Chard



texture

form

curiosity



<i>Acer griseum</i> Paperbark Maple	<i>Beta vulgaris subsp. cicla</i> Rainbow Chard	<i>Betula nigra</i> River Birch	<i>Betula papyrifera</i> Paper Birch Tree
<i>Lavandula</i> Lavender	<i>Lunaria annua</i> Money Plant	<i>Helianthus annuus</i> Sunflower	<i>Nassella tenuissima</i> Mexican Feather Grass
<i>Pennisetum setaceum</i> Fountain Grass	<i>Platanus acerifolia</i> London Plane Tree	<i>Rosmarinus officinalis</i> Rosemary	<i>Rubus occidentalis</i> Raspberry Bush
<i>Salix matsudana</i> Golden Dwarf Corkscrew Willow	<i>Stachys byzantina</i> Lambs Ear	<i>Thymus pulegioides</i> Lemon Thyme	<i>Vaccinium</i> Blueberry Bush

- 1 Color
- 2 Touch
- 3 Scent
- 4 Edible
- 5 Play
- 6 Movement
- 7 Seasonal Change



5

Tactile Garden

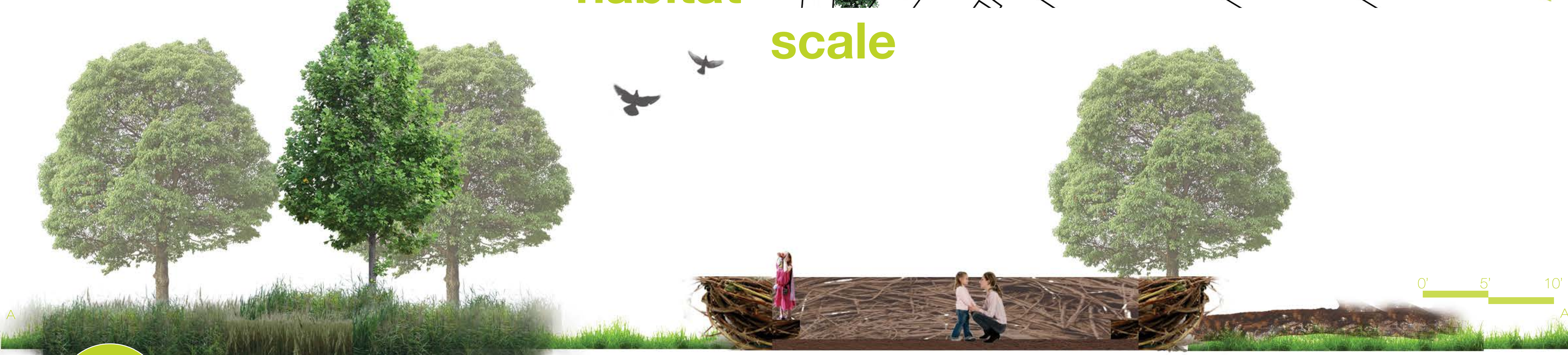


The Bird Watch, like its name is meant for students to observe birds within their habitat in a fun way. The bird's nest is a lookout area that students asked for and provides a safety barrier between the raingarden, wetland area and the playground limits. It is a location of different plants from the rest of the property and shows students how plants and habitat change within the landscape. It is also a location for classes to occur and for students to spend their own time during recess as they please.



habitat

scale



6

The Bird Watch



The reading nooks are located in a quiet place with the wooded area. This location provides students with a place for thinking and quiet education. This environment is good for focus and relaxation for children as they read. Also the structures provides enclosure, comfort, while incorporating an aspect of fun. The plant palette includes lavender and lemon balm which give off a relaxing aroma.

reading and memory

The best documented impact of noise on children's performance is research showing negative effects on reading acquisition. Close to twenty studies have found indications of negative relations between chronic noise exposure and delayed reading acquisition in young children.



Lavendula
Lavender



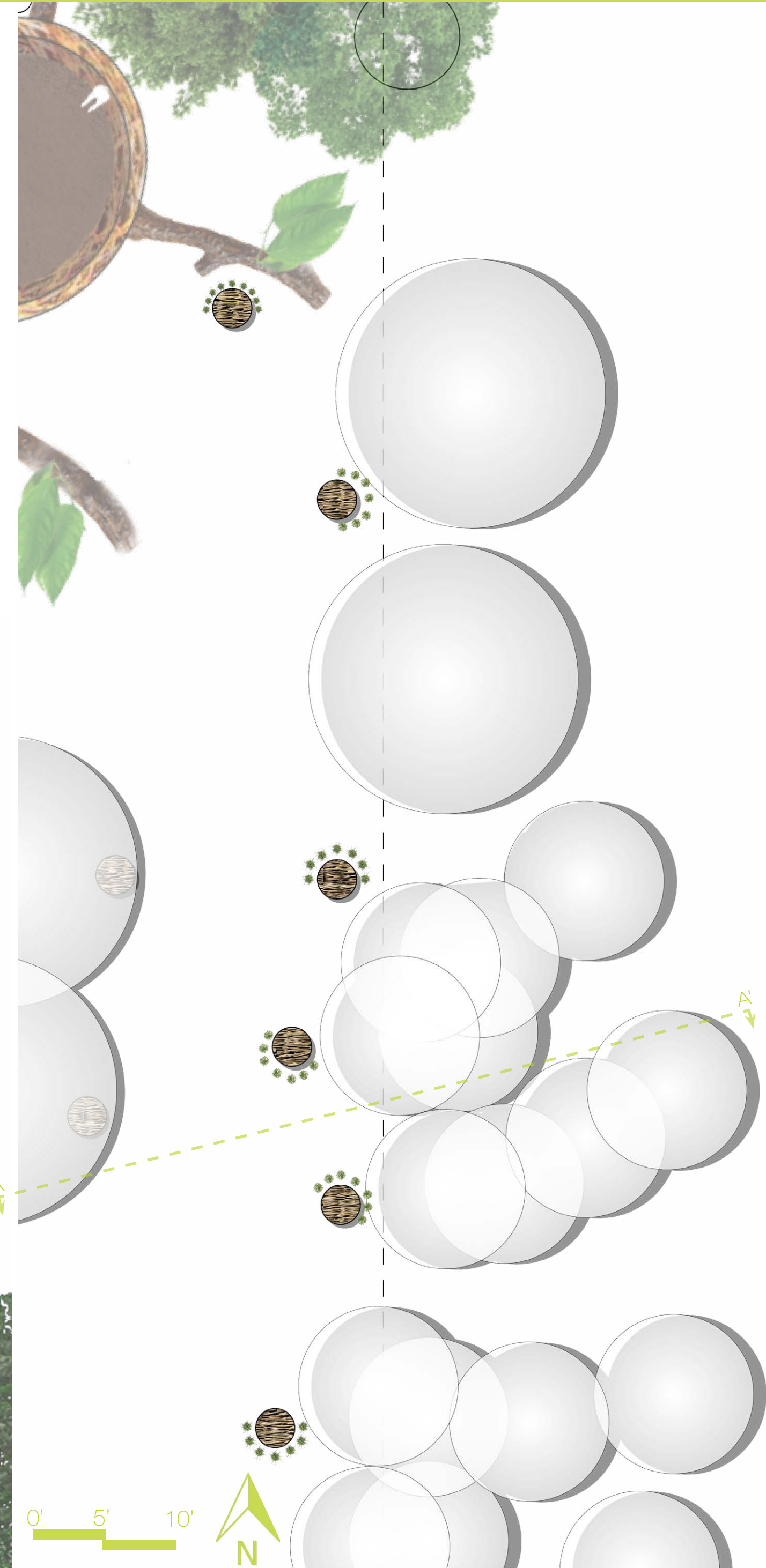
Melissa officinalis
Lemon Balm



Lemon Balm



Lavender



7

Reading Nooks



As many students told us, the woods is their favorite place especially in the aspect of sound. This playful sound garden allows students to embrace their environment while incorporating sound and culture. African culture and art history is the focus of study within this area. Large drums located in the forest make sound as rainwater collects on tree leaves. This playful design allows students to learn about the source that replenishes the watershed. A mini drum set allows students to replicate the sounds they hear.



School performance

There are several cross-sectional studies that have reported a covariation between high noise levels (from aircraft or road traffic) and low grades or low levels of school achievement. The first is the differential socio-demographic composition of the noise dose groups, which may favor children in quiet middle-class housing and living areas. Adjusting statistically for the social class effects may not be sufficient to control for this. The second is the possible confound between being exposed to noise both while learning and when tested for what is learned. Noise at testing may lower the test scores without learning being effected, but the effects of noise on learning and performing can not be disentangled.

motivation

Children chronically exposed to noise are less motivated when placed in achievement situations where task performance is contingent upon persistence. Children chronically exposed to noise, following a set of experimental procedures in quiet conditions, were more apt to relinquish choice over a reward to an experimenter, in comparison to their well matched quiet counterparts.



8

Lost in Sound