



Nature Matching System a curriculum

The Nature Matching System is a color chart developed by artist Tattfoo Tan used to remind us to consume our recommended daily dose of fruits and vegetables. Tan's Nature Matching System is accessible through various media including murals, placemats, screensavers and now as an elementary school curriculum

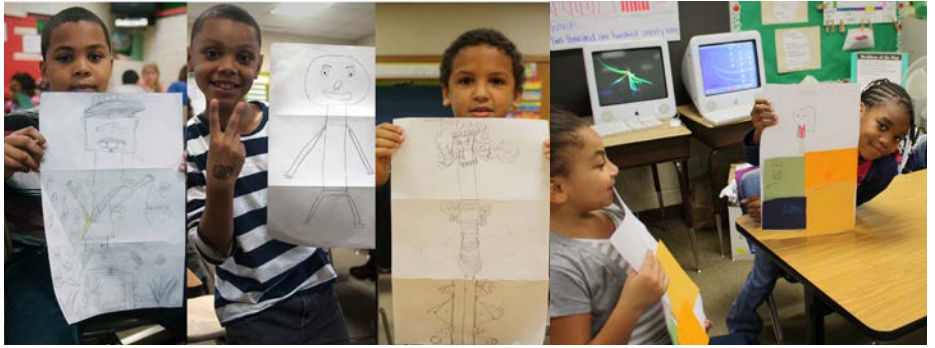
Tattfoo Tan, and artist and educator Marion Wilson, and a class of Syracuse University students created the art and nutrition curriculum of four lesson plans introducing the Nature Matching System. This curriculum was piloted on the westside of Syracuse, New York, with the entire third grade at Seymour Dual Language Academy in partnership with 601 Tully: Center for Engaged Art and Research and NoJaims Bros. grocery store – funded by a grant from the CNY Community Foundation. The intent is that, with four outlined lesson plans, the curriculum can be re-introduced at schools particularly located in urban food deserts. As many as 43% of residents rely on food stamps, and obesity and malnutrition reach their height at both the local and national levels. The Nature Matching System curriculum aims to link consumers with producers and suppliers so that they can make healthy and affordable choices about the food they eat. Nature Matching System informs youth of the holistic value of food and the intrinsic connections between their environment and their health.

Remember to take your daily dose of colors



This curriculum was developed by EDU 300/600 - New Directions in Social Sculpture: Art, Food, Community at Syracuse University and taught by Marion Wilson with Tattfoo Tan . Team members: Daniel Blaushild, Jungone Cho, Becky Cohen, Jaimeson Daley, Jason Foggie, Ryland Heagerty, Victoria Lee, Stacey Lindbloom, and Brian Luce. Special thanks to Geovanti Steward, Rebecca Jackson, Paul NoJaim, John Cardone, Melissa Gardiner, Jillian Nakornthap and the entire third grade team at Seymour Dual Language Academy.

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Students create their own superheroes and share them with classmates. In five color station workshops, the students colored their superheroes to give them powers from the healthy phytonutrients.



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The students make their own smoothies to learn how to prepare a colorful, phytonutrient-filled snack, while gaining their own superpowers.



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The students combine food and art by creating a Nature Matching System. Students paint panels in colors that match colorful fresh fruits and vegetables.



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The students take a field trip to the local grocery store to practice identifying healthy foods and to understand the concept of a balanced meal.

Lesson 1: Superheroes with Superpowers

Topic: Phytonutrients and physical development

Video documentation of the session at <http://bit.ly/1bVng7Y>

Students will:

1. be introduced to the narrative arc to be used throughout the four lessons of the Nature matching System project.
2. work with sequencing and descriptive storytelling to create descriptions for their characters.
3. recognize relationships between healthy eating and human growth development.

Essential Question:

What is the connection between food, color, and phyto-nutritional value?

Understanding:

Students will learn that eating a diet rich in colorful whole foods promotes healthy physical and mental development, which will be reinforced by helping their superhero collect phyto-powers throughout the color station workshops.

Students will know:

how to find phytonutrients in fruits and vegetables based on color.
how phytonutrients affect our mental and physical health.

Students will be able to:

maintain a diet rich in color and phytonutritional value.
link the skin color of fruits and vegetables to physical development.

Learning Plan

Introduction to story+activity (10 minutes)

Give each student a piece of paper and pencil. Have the paper portrait-oriented and pre-folded into three horizontal sections. Each student will draw the "head" of their superhero character in the top most horizontal section of their paper and clearly mark the neck lines by slightly extending them past the crease to the next horizontal section. The students will then pass their drawings clockwise with the head section folded back to not influence the next student who will use the extended neck lines to draw a body for the character. That student will clearly mark lines for the legs using the same method as the neck lines and pass the drawing, folded over, to the final student artist. The result will be an amazingly creative superhero character that the student who drew the head will keep for the remainder of the course. Each drawing interval should be 4-5 minutes. Once each student has their character, the instructor may read the following script to create the narrative for the characters:

"Our super-heroes just landed on earth from outer space to help bring the Nature Matching System to your cafeteria, but they need our help to learn about our planets colorful healthy foods. After the long journey to Earth our super-heroes have lost their strength because they have not found Earth's super-foods. They have been tricked by the Fake Color Foods and they need our help to regain their powers through a well-balanced and colorful diet."

Each color relates to special powers:

Students will need to visit each station in order to learn about the superpowers that each color has for YOU and your SUPERHERO. Each color station will also have unhealthy food attackers (Fake Color Foods) that can weaken their health. Be alert to avoid the Fake Color Foods and make sure to load up on the good Phyto-Powers to maintain strength throughout the last mission.

YELLOW: skin, wound healing, bones, teeth

ORANGE: eyes, vision

RED: heart, blood, circulatory system (transportation)

GREEN: immune system, protective shield

BLUE/PURPLE: thinking cap, brain

Stations

At each station students will learn about a specific color:

Identify different types of produce.

Explain property of the color and how it helps our body and what power it can give to your superhero.

Give students phyto power to dress their superhero.

Concluding Discussion (10 minutes)

Regroup the class.

Ask kids to identify produce and what properties it has.

What happens if a superpower is lost, how can it be regained?

Lead up to the rest of the story, next week use produce to regain powers.

HELLO! MY NAME IS _____.

MY FAVORITE COLOR IS _____

AND I LIKE TO EAT _____
(fruits/vegetables)

BECAUSE IT GIVES ME _____.
(phyto-power)

I USE MY "PHYTO-POWERS" TO _____.
(your super hero's goal)

Lesson 2: Power Up with Smoothies

Video documentation of the session at <http://bit.ly/1bVnOuu>

Topic: Food preparation

Students will:

1. use an understanding of the elements of good nutrition to plan appropriate diets for themselves and others.
 2. know and use the appropriate tools and technologies for safe and healthy food preparation.
 3. recognize relationships between healthy eating and physical development.
-

Essential Questions:

How can we maintain a healthy diet based on our knowledge of food and phytonutrients?

How can we prepare a basic, healthy snack?

Understanding:

Students will understand that by learning how to prepare colorful, healthy foods, they can gain their own “superpowers” and maintain a healthy diet.

Students will know:

how basic math (the relationship of part to whole) is related to preparing food.
that they can be healthier by eating colorful, phytonutrient-filled food.

Students will be able to:

identify and use basic food preparation tools (recipe card, measuring cups, blenders).
prepare a nutritious and delicious snack.

Learning Plan

0-5 minutes:

Explain the general idea and goals of the lesson (define smoothie).

5-10 minutes:

Perform a class demonstration of all of the tools that will be used (recipe card, measuring cups, blenders) and select a student to help demonstrate each of the three tools.

10-25 minutes:

Divide the students into groups of four.
Reinforce Lesson #1 by asking students about the fruits and vegetables they previously learned about and what “powers” can be gained from each fruit and vegetable.

Provide them with a blank recipe card that they fill out along the way.

Ask students to select a certain amount of fruit for their smoothie (i.e. 1/2 cup or 1 cup).

Ask students to measure out a certain amount of yogurt for their smoothie.

Ask students to pick out a specific number of ice cubes for their smoothie.

Ask students to put all the ingredients in the blender with the assistance of an adult.

25-35 minutes:

Blend the smoothie for each of them and pour it into the cup.
Consume the smoothie and discuss with the group which powers they are gaining from their smoothie. Encourage students to act out those powers and have the class guess the powers, similar to charades.

35-45 minutes:

Reconvene with the larger group and ask about what the students have learned.

Anticipated Misconceptions & Confusions:

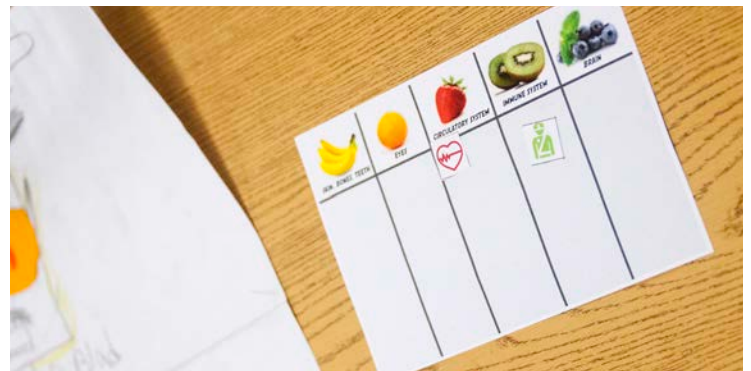
Students may not understand the difference between dry and liquid measuring cups, nor why the colors of the fruits mix the way they do. Students may also question why they do not feel the benefits of the fruits immediately.

Vocabulary:

Smoothie, phytonutrients, recipe, measuring cup.

Materials:

Vanilla yogurt, fruit, ice cubes, blender, dry measuring cup, liquid measuring cup, plastic cups, paper towels, sink.



PHYTO-POWERS!

PHYTO-NUTRIENTS - NUTRIENTS OF COLOR!



Yellow
Strong Skin & Bone



Orange
Super Vision



Red
Super Energy



Green
Protective Force



Blue/Purple
Super Smart



Lesson 3: Riddle of a Balanced Meal

Video documentation of the session at <http://bit.ly/1etyvsD>

Topic: Eating a balanced meal

Students will:

1. engage their immediate and external environments.
 2. understand and exercise the idea of making healthy food choices to benefit physical and mental development.
-

Essential Questions:

How can we make healthy food choices using color and identify them using locally available stores?

Understanding:

Students will understand that they can make healthy food choices by using color; specifically through the Nature Matching System. They will also understand that they can acquire these nutritional foods they have learned about from a local store.

Students will know:

how to make healthy food choices on a daily basis, by using color, and specifically the variety of color.

Students will be able to:

locate fresh produce within the grocery store and relate them to the installed Nature Matching System in their school.

Learning Plan

0-15 minutes:

- Overview of field trip to local supermarket.
- Explain the goal of the field trip.
- Gather students and embark.

15-20

- Travel to local store.

15-35 minutes:

Gather students outside of local store and have the students reiterate the goal/purpose of their field trip. Enter local store and begin scavenger hunt. As students identify fruits and vegetables, ask students about their phytonutrients based on color. Have students write examples of a product from each food group on their "Food Plate" as they enter that specific section in the store.

35-45 minutes:

- Exit local store, do a "head count", and return to school.

How can we make healthy food decisions using the Nature Matching System and our local Supermarket?

Standards:

Use a ruler/yardstick to measure to the nearest standard unit (whole and ½ inches, whole feet, and whole yards)

Vocabulary:

Nature Matching System, PhytoPower (Phyto-Nutrients), Produce (Fruits and Vegetables), My Food Plate, Scavenger Hunt.

Materials:

Paper Plates, Edible Paint, Writing Implements.



Riddles

1. Some people think I'm a vegetable, but I'm really a fruit. I taste great raw in salads or on sandwiches, or you can cook me to make pasta sauce or ketchup. **Who am I?**
2. Because of my pebbly green skin, I sometimes go by the alias "alligator pear". You have probably tasted me mashed into guacamole or in slices on a sandwich or salad. **Who am I?**
3. I am in the protein group. I come from a farm animal. Open me up and you'll see two parts. **Who am I?**
4. I help build strong bones and teeth. Try my low-fat or nonfat varieties as a healthy substitute for sour cream. I am delicious served with fruit. Add granola and serve me as a parfait. **Who am I?**
5. I am in the grains group. I pack extra fiber when I am made from whole wheat flour. Some people like me "al dente" but some people cook me longer. I come in many different shapes like bowties. Most people eat me with sauce on top. **Who am I?**

Lesson 4: Mural Painting: One Square Panel at a Time

Topic: Understanding food through paint

Students will:

1. identify measurement tools
 2. measure space and objects using inches, feet and yards.
-

Essential Questions:

How do we paint the canvases?
How do we organize the canvases in the space provided?

Understanding:

Students will understand that math can be used to create art.

Students will know:

how to measure large spaces and fit all canvases considering the necessary spacing in between.

Students will be able to:

paint the entire canvas including sides, identify colors and arrange the art pieces in a desired composition.

Learning Plan

0-5 minutes:

Explain the lesson as a whole.

5-15 minutes:

Measure the space provided (student will measure wall(s) with tape measure).

15-25 minutes:

Draw a diagram on the board to show and calculate how many canvases fit and with how much space in between.

25-30 minutes:

Explain and demonstrate brush technique.

30-45 minutes:

Paint the canvases.

How do we create Nature Matching System Mural?

Supporting Questions:

How do we use math for everyday tasks? How do we create organization and order?

Standards:

Use a ruler/yardstick to measure to the nearest standard unit (whole and $\frac{1}{2}$ inches, whole feet, and whole yards).

Anticipated misconceptions & confusion:

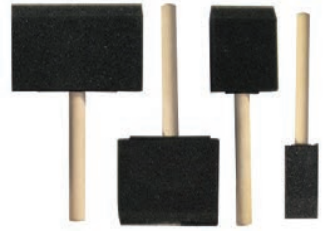
Students may not paint evenly and/or in uniform direction and forget to consider space between canvases and external border.

Vocabulary:

Brush stroke, consistency, fluidity, Nature Matching System color terms with corresponding fruits and vegetables (eggplant purple, green zucchini, etc.), and spacing.



Benjamin Moore Paints



Sponge Brushes in Various Width



Green Painter's Tape



Gesso Boards



MDO Plywood

There are 35 colors below. A minimum of 20 colors should be used. Matte finish is recommended. Interior or exterior grade can vary depending on the nature of each individual project.

1364	Vintage Claret	2024-40	Yellow Finch	2073-20	Autumn Purple	2146-30	Split Pea
1232	Fresh Brew	2021-20	Lemon	2086-30	Rosy Blush	2019-40	American Cheese
2154-40	York Harbor Yellow	2018-20	Mandarin Orange	2155-30	Yellow Marigold	2087-10	Neon Red
2172-40	Raspberry Parfait	2084-30	Rouge	328	Sunbeam	2074-10	Grape Juice
102	Casabella	2144-10	Guacamole	2144-20	Eucalytus Leaf	1302	Sweet Rosy Brown
2026-20	Margarita	2169-30	Oriole	2016-10	Startling Orange	1378	Lazy Afternoon
2028-40	Pear Green	2009-10	Redstone	2018-40	Nacho Cheese	2022-10	Yellow
2171-30	Adobe Orange	2070-20	Plum Royale	2029-10	Basil Green	2145-30	Brookside Moss
1287	Santa Fe Pottery	2146-10	Dark Celery	2086-10	Exotic Red		

Painting on panels

Quantity: Determine the number of panels needed based on the size of the wall.

Panels: Paint the top and all four sides of the panels.

Paints: Use a separate brush for each individual paint can. Buy the smallest size paint possible (ask for a sample size of 1/2 or 1 pint).

Painting directly on wall

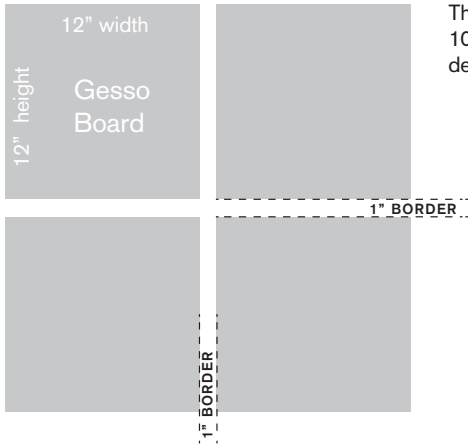
Work: Prime the wall and let it dry. Starting in the center, measure out each square and use tape to mark vertical and horizontal borders.

Paints: Use a separate brush for each individual paint can. Buy the smallest size paint possible (ask for a sample size of 1/2 or 1 pint).

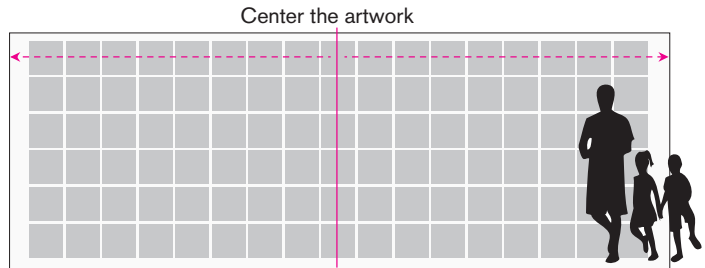
Painting on MDO (Medium Density Overlay) plywood

Panels: Prime the plywood and let it dry. Starting in the center, measure out each square and use tape to mark vertical and horizontal borders. Each 4'x8' panel will produce 32 squares at 10.75" each with a 1" white border.

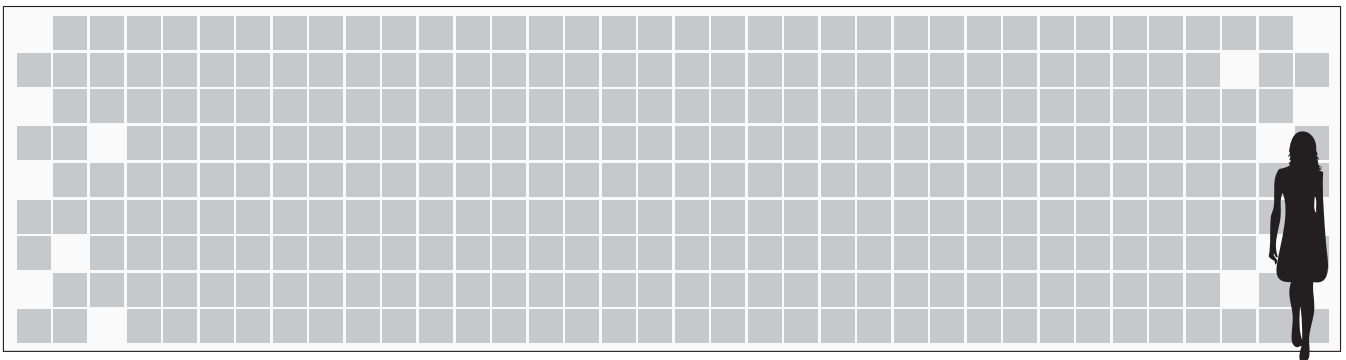
Paints: Use a separate brush for each individual paint can. Buy the smallest size paint possible (ask for a sample size of 1/2 or 1 pint).



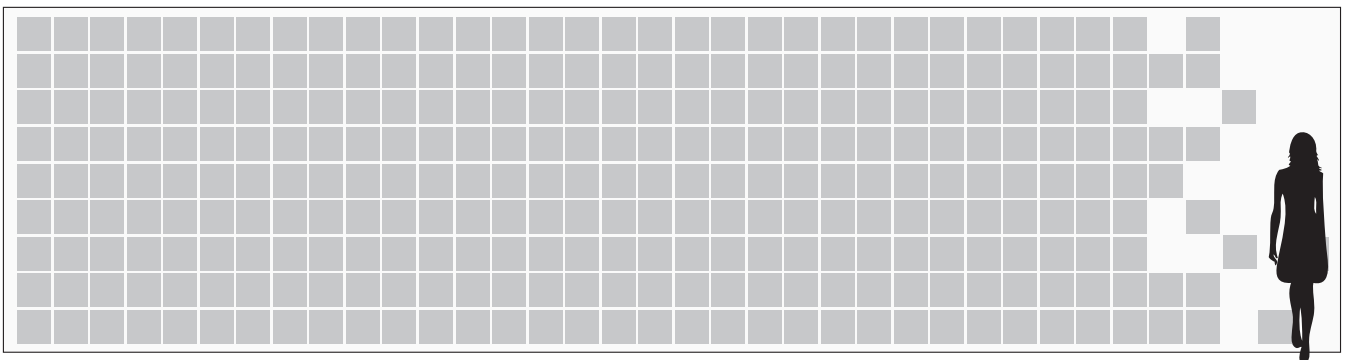
The size of the panels can range from 10.75" square to 12" square, depending on the size of the wall.



For a small sized wall, paint the entire surface.



For a large sized wall, consider "pixelating" each end of the mural.



or just one end.



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601 TULLY: CENTER FOR ENGAGED ART AND RESEARCH

601 Tully: Center for Engaged Art and Research supports interdisciplinary creation and studies in art, architecture, ecology, entrepreneurship and education. 601 Tully is housed at 601 Tully Street on the near westside of Syracuse and is an affiliate of Syracuse University. 601 Tully provides international artists and scholars in residence that engage the neighborhood and or the building as a catalyst for creating new work. 601 Tully is committed to the coproduction of new culture.

MLAB

An auxiliary component of 601 Tully is MLAB (Mobile Literacy Arts Bus) – a renovated 1984 American Eagle RV- into a mobile classroom, digital lab, poetry library and gallery that travels throughout New York state partnering with local communities through innovative programming.

Both 601 Tully and MLAB were created in Syracuse University classes called New Directions in Social Sculpture taught by artist and professor, Marion Wilson.



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