Lesson 1

INTRO TO BUBBLE

GOALS & OBJECTIVES

Students will be introduced to the Bubble volunteers, as well as the Bubble Program.

Students will begin to identify Bubble kitchen utensils.

MATERIALS

- 16 apples: 4 different varieties of apples with 4 apples per variety. (pre-slice apples, leaving 1 whole from each variety for discussion)*

From Box:

- Bowls
- 4 cooking tools: measuring cups, whisk, knives, sporks, etc.
- Take home recipes

*Suggestions for apples: Fuji, McIntosh, Granny Smith, Red Delicious, or Golden Delicious

STANDARDS

Common Core Standards

Math. K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

NYS Standards

Standard 1; Analysis, Inquiry, and Design; Engineering Design; Key Idea 1: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints.

T1.1 Describe objects, imaginary or real, that might be modeled or made differently, and suggest ways in which the objects can be changed, fixed, or improved.

T1.1a Identify a simple/common object, which might be improved and state the purpose of the improvement.

T1.1b Identify features of an object that help or hinder the performance of the object.

OPENING QUESTIONS

Who likes to eat food? Who likes to make food?

In Bubble class we will taste new food, and sometimes we will be cooking food!!

DISCUSSION

Introduce yourself and say YOUR favorite food. Then have a few students say what THEIR favorite food is.

Introduce Bubble: Bubble is a group of people who want to teach you about healthy food, where it comes from, and how and why it's important to try new foods. We will be cooking and tasting food in every Bubble class!

ACTIVITY

1

Kitchen Utensil Identification

Tell students that they are going to learn about kitchen utensils. Hold up a kitchen tool from the Bubble Box and ask students to name the item and explain it's function. Repeat activity for 3 more items.

2 **Bubble Rules**	Tell students that every Bubble class, we get to learn about and try new foods! Today we will have an apple tasting party, but first we need to learn some very important Bubble rules: 1. **Don't yuck my yum.** Ask students why they think this rule is important. This rule is important because it will prevent anyone's feelings from getting hurt. 2. **Always wait until everyone is served before we touch our food.** Ask students why do they think this rule is important? This is important because it allows everyone to eat at the same time.
3 **Where Apples Come From**	Describe where an apple comes from: An apple comes from an apple tree and different apple trees make different kinds of apples. Today we will be tasting different kinds of apples. Show the whole apple of each variety and name them. Encourage students to discuss how the various apples look and how they are different.
4 **Tasting**	Distribute bowls to each student. Give four apple slices per student one of each variety. Ask students: Is this the first time anyone has ever tried an apple? Can you describe the apples for us using your five senses? Do the apples taste different? How do they taste different?

TEACHER'S NOTE

Be sure you are familiar with all the items in the Bubble box.

When buying apples, keep in mind that this lesson is aimed at exposing students to a variety. Red delicious, golden delicious, granny smith, and Fuji apples work very well for this lesson because they show differences in color and taste. Red delicious is crisp, sweet, and juicy. Golden delicious is sweet and is very good in fresh salads. Granny smith sweet and sour. Fuji is sweet apple with a distinctive skin of red blush with stripes of green and yellow.

The most effective way of demystifying the experience of trying new foods is to have the students see the whole food, discuss where it comes from, and be part of the process of making it into a finished dish.

CLOSING & REMINDERS

Ask students, what is one new kitchen tool they learned about today? Ask if there were their any differences between the different varieties of apples? Have students share which apple variety was their favorite? Provide the classroom teacher with the take home recipes.

TELL STUDENTS YOU WILL BE BACK EACH WEEK WITH NEW FOOD ADVENTURES!

LESSON 1 RECIPE

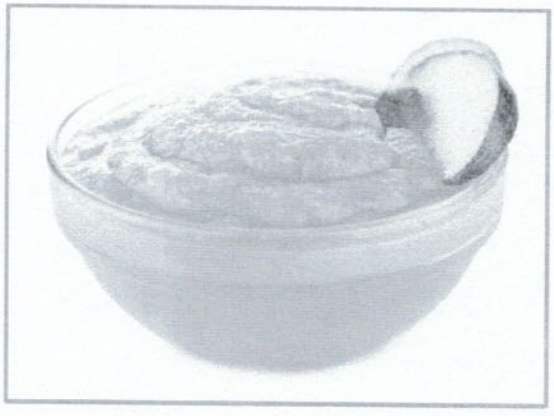
SERVES: 6-8 people

Applesauce

TODAY IN BUBBLE CLASS WE TRIED DIFFERENT TYPES OF APPLES. HERE IS A RECIPE THAT USES WHAT WE LEARNED.

INGREDIENTS

- 6 apples of different colors, cored and sliced
- 1.5 cups water
- 1/4 cup honey
- 1 tsp ground cinnamon



DIRECTIONS

1. Heat 1.5 cups of water in a large pot over medium heat.
2. Once at a boil, add the apples, honey and cinnamon to the pot, cover, and simmer for 15 minutes.
3. With a potato masher, mash the apples in the pot until at desired consistency.
4. You can strain out the peels from the applesauce, but its optional.
5. Let the applesauce cool for 5 minutes and enjoy!

Lesson 2

TASTE PALATE:
TASTE THE DIFFERENCE

GOALS & OBJECTIVES

Students will use their five senses to identify and describe the foods provided to them.

Students will experience and understand four basic types of taste: sweet, salty, bitter, & sour.

MATERIALS

- 1 bag popcorn (salty)
- 1 quart strawberries halved (sweet)
- 4 lemons (sour) cut into 8ths
- 1 bag arugula (bitter)

From Box:

- Hand sanitizer
- Bowls
- Sporks
- Take home recipes

STANDARDS

Common Core Standards

Literacy.SL.K.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.

NYS Standards

Standard 4; Key Idea 3; Performance Indicator; Observe and describe properties of materials, using appropriate tools. 3.1b Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.

OPENING QUESTIONS

Review: What are the Bubble rules?

What are the five senses?

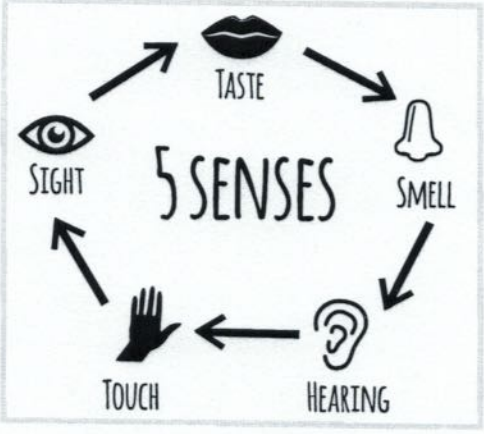
DISCUSSION

Explain to the students that they are going to be using ALL of their five senses to try food today!

Ask students: What do we use to see? To feel? To hear? To smell?

Ask the students: What do we use for our sense of taste? Explain that our sense of taste is truly amazing because our tongue can recognize four different types of taste: sweet, sour, salty, and bitter. This is why foods taste different.

Explain that today we will be tasting foods that are sweet, sour, salty and bitter.



	ACTIVITY
1 **Sour**	Distribute wax paper to students. Distribute lemons and have the students use all 5 senses to describe how the lemons looks, feels, smells, and finally tastes. Emphasize that lemons are sour. Ask the students if they can name other sour foods.
2 **Salty**	Distribute a few pieces of popcorn to each student. Emphasize that popcorn tastes salty. Ask the students if they can raise their hand and name some other foods that taste salty.
3 **Bitter**	Distribute a few pieces of arugula. Because bitter is a difficult taste to distinguish, it might help to compare it to collard greens. Ask the students if they can name other bitter foods.
4 **Sweet**	Distribute a few strawberries to each student and repeat the same process. Emphasizing that strawberries are sweet. Ask the students if they can name other sweet foods.
5 **Recalling tastes**	Ask students to name their favorite food and discuss which taste applies to that food. (ex. mac and cheese is salty and ice cream is sweet) If there is enough time have students to draw their favorite food and label it as one of the four tastes.

TEACHER'S NOTE

90% of what you taste comes from your nose- what you smell. From an evolutionary perspective; kids under the age of 5 don't like bitter tastes because bitter foods in nature are dangerous. There are no dangerous sweet foods.

In today's world, foods have a lot of added sugar, skewing our taste buds to expect sweetness. We taste so much sweetness that it can numb our taste buds to other tastes. We do this activity to make students more aware of their taste and how they perceive taste.

In order for a substance to be tasted, small bits of it must be dissolved in saliva and enter the pore of the taste buds. Once the in the pore it relays a message to the brain that perceives the taste we sense.

Food has to appeal to all our senses: smell, mouth feel (texture), hearing (crunch), sight (pleasing to the eye). If a student is having a hard time trying a new food, try to appeal to each of the senses; suggest that the student think about how it looks, smells, feels, sounds as he or she eats it.

CLOSING & REMINDERS

Ask the students to raise their hands and recall the foods that tasted salty, sour, sweet, and bitter. Explain that we will use these words to describe how different foods taste during all of our Bubble classes! Provide the classroom teacher with the take home recipes.

LESSON 2 RECIPE

SERVES: 4 people

Strawberry Feta Salad

TODAY IN BUBBLE CLASS WE LEARNED ABOUT USING OUR SENSES WHEN WE EAT. HERE IS A RECIPE TO TRY AT HOME THAT USES WHAT WE LEARNED.

INGREDIENTS

- 1/2 cup crumbled feta
- 1 cup strawberries
- 1 lemon
- 1 bag of arugula
- 1 Tbsp honey
- Salt to taste
- Pepper to taste
- 6 Tbsp olive oil

DIRECTIONS

1. In a small bowl, combine the dressing ingredients (olive oil, lemon juice, honey, salt, and pepper).
2. Toss pre-cut strawberries, arugula, and feta with the dressing.

*Ask you child what flavors they taste. Salty, sweet, sour, or bitter?

ADD ANY OTHER SALAD INGREDIENTS YOU LIKE!

Lesson 3

TABLE SETTING & MANNERS

GOALS & OBJECTIVES

Students will be able to politely accept food.

Students will be able to set a table.

Students will be able to verbalize polite table manners ("please pass the..." and "thank you").

MATERIALS

- 1 bag of carrots cut into sticks
- 4 pears cut into 1/8ths
- 1 bunch of grapes
- 1 lt. bottle of water
- 25 cups
- 25 napkins
- 25 plates

From Box:

- Serving bowls
- Sporks
- Wax paper
- Hand sanitizer
- Place setting coloring sheet
- Take home recipes

STANDARDS

Common Core Standards

Literacy.SL K1a :Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).

NYS Standards

Standard 6; Interconnectedness: Common Themes; Magnitude and Scale; Key Idea 3: The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect behavior and design of systems. Observe that things in nature and things that people make have very different sizes, weights, and ages. Recognize that almost anything has limits on how big or small it can be.

OPENING QUESTIONS

Review: What are the five senses?

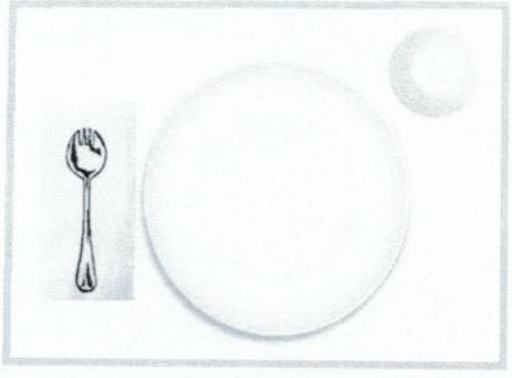
Who can give an example of good table manners?

DISCUSSION

Share with kids there are many manners to use at the table: help set the table, wait patiently for the food with hands in your lap, say "please pass" and "thank you", and help clean up.

Explain to the class in addition to the manners discussed, there are also the important Bubble Manners: no one eats until everyone is served and "don't yuck any body's yum". Ask students why we use manners? Explain that manners are important for being kind and friendly at the table. Meal times are also times to enjoy each other's company.

Explain that in this lesson the students are going to practice manners and learn to set a table.



	ACTIVITY
1 **Place Setting**	Explain and demonstrate a place setting to students. Plate in the center, napkin to the left, spork on the napkin, and cup to the top right of the plate. After students understand the plate setting, hand out a plate, napkin, cup, and spork to each student. Have each student arrange their place settings at their seats. Walk around and assist students. **NOTE:** It can help students if you break down the place setting into steps: Step 1- Put the plate in the center. Step 2- Put the napkin on the left side of the plate, and place the spork on top of it. Step 3- Put the cup in the top right corner.
2 **Practice Manners**	Distribute bowls of carrots, grapes, and pears to each table. Encourage students to practice saying "please pass the..." and pass around serving bowls. Remind students to wait until everyone is served before anyone starts to eat. Walk around and fill up the student's cups with water.
3 **Coloring**	If time permits, you choose a book to read that relates to the lesson or hand out place setting coloring sheets (ask classroom teacher for coloring utensils).

TEACHER'S NOTE

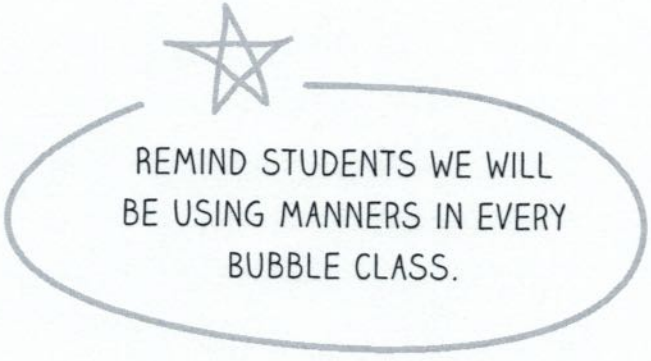
Good manners are a key element to human society because it shows people we care about others around us and table manners make it easier for everyone to feel comfortable in social situations. Manners also help friendships develop because they allow other people to feel cared for and respected.

If a student forgets one of the manner be sure to remind them (ex. "I think you forgot to say please").

Teach by example: always use your manners in Bubble class, too!

CLOSING & REMINDERS

Ask the students to raise their hands and share one table manner they learned. Ask students to name a part of the place setting. Provide the classroom teacher with the take home recipes.

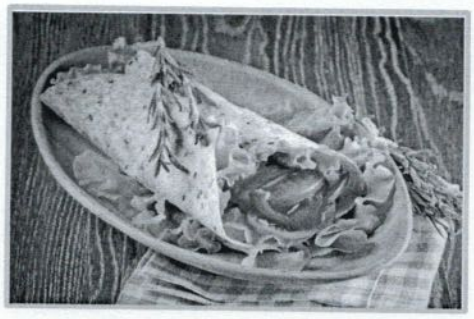


LESSON 3 RECIPE

SERVES: 6 people

Table Tacos

TODAY IN BUBBLE CLASS WE LEARNED ABOUT TABLE MANNERS. HERE IS A RECIPE THAT WILL HELP YOUR CHILD PRACTICE THEIR MANNERS.



FILLING INGREDIENTS

- 1 package whole-wheat tortillas
- 2 cans black beans, drained of liquid
- ½ cup brown rice
- ½ cup shredded cheese
- 1 cup tomato, diced
- ¼ cup cilantro, chopped
- ¼ cup red onion, chopped

DIRECTIONS

1. Cook rice as directed on package.
2. Rinse the black beans.
3. Mix together tomato, cilantro and onion to make salsa.
4. Place salsa, rice, beans, and cheese in three separate bowls.
5. Sit at the table, pass around a whole-wheat tortilla to each person.
6. Pass around the beans, rice, cheese, lettuce and salsa in individual dishes. Each person adds the toppings they want to their taco.

*Make sure to say "please pass..." and "thank you" when you pass around these items.

8. Fold up the taco and enjoy!

OPTIONAL TOPPINGS: AVOCADO, GRILLED CHICKEN, CORN OR GREEN PEPPERS.

Lesson 4

KNIFE SKILLS & VEGGIE FACES

GOALS & OBJECTIVES

Students will demonstrate how to properly and safely handle a knife.

Students will be able to demonstrate cutting techniques.

MATERIALS

- One large package of cherry tomatoes
- 1 container alfalfa sprouts
- 6 red or yellow peppers, quartered
- 5 stalks celery, cut into fifths
- 5 cucumbers, cut into fifths
- 1 container of hummus

From Box:

- Hand sanitizer
- Wax paper
- Lettuce knives
- Take home recipes
- Teaching aid

STANDARDS

Common Core Standards

Math.Content.K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.

NYS Standards

Standard 1; Analysis, Inquiry, and Design; Engineering Design; Key Idea 1: T1.2 Investigate prior solutions and ideas from books, magazines, family, friends, neighbors, and community members.

T1.2a Identify appropriate questions to ask about the design of an object

T1.2b Identify the appropriate resources to use to find out about the design of an object

Inquiry and Process Skills: Manipulating materials – handling or treating materials and equipment safely, skillfully, and effectively

T1.1b Identify features of an object that help or hinder the performance of the object

OPENING QUESTIONS

Review: Why are good table manners important?

What are some important tools used for cooking?

Who has used a knife to cut food before?

DISCUSSION

Tell students that students that today we will be using knives to cut up food. Explain there are important knife rules we must follow when using a knife.

Ask students to pick up the hand they write with and wave it in the air. Explain that this is their knife hand. Tell the students that their other hand is a bear claw (you can put up a claw hand and growl). Ask students, why do I want you to make a bear claw? Explain: Your "claw" goes on the food you are cutting so your fingers are protected.

Explain to students that the tip of your knife stays on cutting board as you cut. Demonstrate on a piece of food (easiest on cucumber).

Explain to the students that if anyone picks up his or her knife before you tell them to it will be taken away. If they drop a knife, a teacher or volunteer will pick it up.

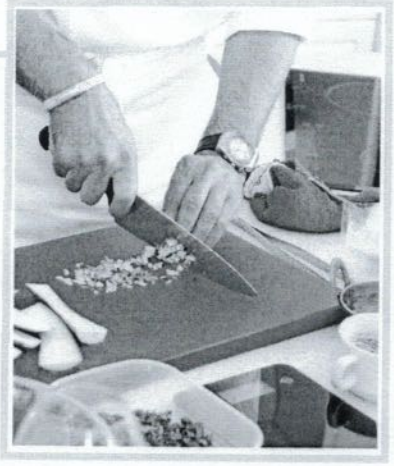
Explain to the students that the knife "lives on the cutting board." It never leaves!

1

Cutting techniques

Explain to students the four different knife cuts they will be using. You can use the teaching aid or draw the types of cuts on the board.

- Diagonal- to cut at an angle
- Dice- to cut into tiny pieces
- Chop- to cut into bite sized pieces
- Julienne- to cut into long strips



2

Explain the face activity

Display the vegetables and fruits and go over the name of each. Have the students repeat back the names of the vegetables and fruit

Explain that the students will be cutting up the vegetables and fruits to make a face! Ask students to name part of a face (eyes, nose, mouth, etc).

3 **Distribute tools**	Distribute wax paper, 1 cherry tomato, a small handful of sprouts, 1 piece of cucumber, and 1 piece of celery. Distribute the knives last. Remind the students they should not touch knives until instructed; teachers and volunteers will help them cut. Remind students about knife safety and rules.

4 **Get creative!**	Have students make their veggie faces using the different knife cuts. Encourage the students to think outside the box, and to enjoy themselves! Walk around and assist students with their knife skills and cuts. When they have finished tell them that they can eat their faces! Give each student a scoop of hummus to dip their vegetables into.

TEACHER'S NOTE

This is the first foray into knife safety. Bubble likes to encourage the students to think of these knives as a sharp chef's knife.

Hummus may be new to some students. Encourage all students to try the hummus, and to use their senses to describe how it tastes.

CLOSING & REMINDERS

Ask students to raise their hands and repeat a knife safety rule they learned. Ask students to raise their hands and name one food they tried that day Provide the classroom teacher with the take home recipes.

LESSON 4 RECIPE

SERVES: 4-6 people

BUBBLE'S Vegetable Art

TODAY IN BUBBLE CLASS WE LEARNED ABOUT HOW TO USE A KNIFE. HERE IS A RECIPE TO TRY AT HOME THAT USES THE SAME VEGETABLES WE ATE IN CLASS.

DIRECTIONS

1. Cut up carrot, tomatoes, peppers, and cucumbers into different shapes and sizes. Practice different cuts: chop, dice, diagonal or julienne.

2. Use the carrots, tomatoes, cucumbers, peppers, and alfalfa sprouts to turn the veggies into art like faces and flowers. Be creative and have fun!

3. Dip pieces of your artwork into the hummus, and enjoy!

INGREDIENTS

- 2 medium carrots
- 1 pint of cherry tomatoes
- 2 bell peppers quartered
- 1 cucumber quartered
- 1 cup alfalfa sprouts
- 1 cup hummus

GET CREATIVE AND USE DIFFERENT TYPES OF VEGETABLES!

Lesson 5

SEED TO SPROUT

GOALS & OBJECTIVES

Students will understand that all plants grow from a seed.

Students will be able to explain how a seed becomes a plant.

Students will recognize that plants need sun, soil, and water to grow.

MATERIALS

- 1/2 cup of beans* (black beans or mung beans)
- Sandwich-sized ziploc bags (one per student)
- 1 can cannellini beans (drained and rinsed)
- 1 garlic clove
- 1 bunch of carrots, julienned
- 4 red bell peppers. Julienned

*Alternatives listed in teaching notes.

From Box:

- 1 roll of paper towels
- Bowl
- Blender
- Wax paper
- Lettuce knives
- Olive oil
- 1 cup of water (from sink)
- Take home recipes
- Teaching aid

STANDARDS

Common Core Standards

Literacy.SL.1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

Literacy.SL.1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

Literacy.SL.1.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

NYS Standards

Standard 4: Living Environment; Key Idea 1: Describe the life processes common to all living things.

1.2a Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die.

3.1b Each plant has different structures that serve different functions in growth, survival, and reproduction.
- Roots help support the plant and take in water and nutrients
- Leaves help plants utilize sunlight to make food for the plant

• Stems, stalks, trunks, and other similar structures provide support for the plant
• Seeds contain stored food that aids in germination and the growth of young plants

3.1c In order to survive in their environment, plants and animals must be adapted to that environment.
• Seeds disperse by a plant's own mechanism and/or in a variety of ways that can include wind, water, and animals.

OPENING QUESTIONS

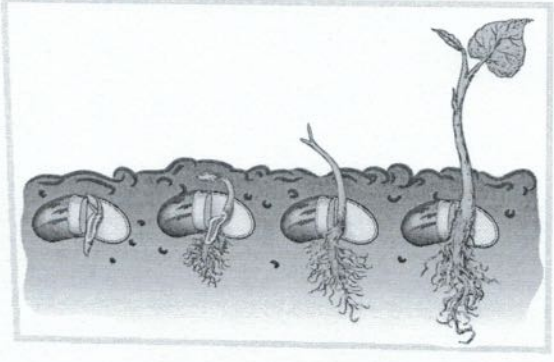
Review: What makes a fruit a fruit?

Raise your hand if you have ever planted a seed? What have you grown?

DISCUSSION

Have students raise their hands and share what they think a plant needs to grow (soil, water, sun, etc).

Seeds come in all shapes and sizes; kiwi seeds are really small and an avocado seed is the size of a ping-pong ball! Beans are seeds too; seeds are popular ingredients in many foods we eat like pumpkin and sunflower seeds. Inside of every seed there is a little plant that is waiting to grow. The seed needs water, soil, and sunlight to grow into a plant. Reference the teaching aid that show the life cycle of a plant.



1 **Water for the seed**	Pass out the Ziploc bag, a sheet of paper towel, and 2 seeds to each student. Then demonstrate to the class how to dampen their paper towels. Dip your fingers into a bowl of water and then let the drips "rain" on the paper towel. Walk around the room helping students "rain" on their paper towel.
2 **Planting a Seed**	Explain to students that the paper towel is acting as the soil by holding onto the water for the seed. Once the paper towel is dampened, have students place the seeds on it with space in between them. Then fold the upper half of the paper towel over the bottom so the seeds can get buried. Have students gently place the paper towel into the Ziploc. When the students are done creating their gardens review what steps are important to take care of their Ziploc gardens: leave the bag in a sunny spot and keep the towel a little wet, but not very wet. Ask students what they think will happen to the seeds over the next few days.

HELP STUDENTS TO "RAIN" ON THEIR SEEDS TO AVOID SPILLING.

3 **Seed Tasting**	Explain to the students that some seeds we can eat. Ask the students if they have ever eaten a seed. Have students name some seeds they have eaten. (Some common edible seeds are; beans, lentils, corn, coconut, sunflower seeds, pumpkin seeds, and peanuts.)
4 **Bean Dip**	In a blender have students help add white beans, garlic, and lemon zest, then blend until roughly chopped. Slowly pour 1/4 of a cup of olive oil into the blender, and blend until smooth. Place the bean dip into a bowl and season with black pepper and salt to taste. Distribute 1 Tbsp. of bean dip to each student and 2 pieces of carrot and

TEACHER'S NOTE

To take care of these Ziploc gardens the paper towel needs to be dampened not soaked or else the seeds will rot. Seeds need warmth, a good place to put them is tapped to a window with lots of sunshine.

Alternative suggestion for seeds are chickpeas (6 hours soaking, 2-3 days to sprout), lentils (7 hours soaking, 2-3 days to sprout), sesame seeds (8 hours soaking, 2-3 days to sprout).

CLOSING & REMINDERS

Ask students what they remember about what plants need to grow and how they need to care for their ziploc gardens. See if the students can name some other seeds that we eat (e.g. lentils, pumpkin, garbanzo beans, etc). Provide the classroom teacher with the take home recipes.

LESSON 5 RECIPE

SERVES: 4 people

BUBBLE'S Bean Dip

TODAY IN BUBBLE CLASS WE LEARNED ABOUT HOW PLANTS GROW FROM A SEED. YOUR CHILD HAS BROUGHT HOME A BEAN THAT WILL GROW INTO SPROUT. PLEASE HELP YOUR CHILD KEEP THE TOWEL MOIST AND KEEP THE BAG IN A WARM PLACE. HERE IS A RECIPE THAT USES WHAT WE LEARNED IN CLASS.

BEAN DIP INGREDIENTS

- 1 can of cannellini beans, drained and rinsed
- 2 medium cloves of garlic, peeled
- 2 teaspoons of freshly squeezed lemon juice and 1 teaspoon finely grated lemon zest from 1 lemon.
- 1/4 cups plus 1 tablespoon of extra virgin olive oil, divided
- Kosher salt and freshly ground black pepper.

DIRECTIONS

1. Drain and rinse the cannellinni beans
2. In a food processor combine beans, garlic, and lemon juice. Pulse until beans are roughly chopped.
3. With the motor running, slowly pour 1/4 cup of oil through feed tube. Process until mixture is smooth.
4. Transefer bean mixture to a small bowl. Stir remaining zest with remaining 1 tablespoon of oil. Season with salt and pepper to taste.
5. Serve immediately or store in an airtight container in the refrigerator for up to 3 days.