Focused Curriculum Plan
ECE 312

Curriculum Topic: Fruits and Vegetables

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STEP 1: CHOOSE A DEVELOPMENTALLY AND CULTURALLY APPROPRIATE CURRICULUM TOPIC

1. Will this topic allow for **active, constructive learner participation and involvement**? Explain.

Our topic is fruits and vegetables, during the exploration of this topic the children will be active, participating and involved, as we understand knowledge is a shared effort that is transferable. We as teachers also understand that it's important for children to utilize their developmental domains. The children will be active by moving around the room gathering materials needed for activities. Students will also be involved in small group activities, which will allow them to participate and have their voices and ideas heard. While students explore different activities, it allows them to construct their own form of learning and exploring. Our topic is formatted for the activities to be modified by the learners. Students will be able to expand the activities based on their own connections.

2. Will this topic foster **social interaction**? Explain.

Yes, this topic will foster social interaction because the activities the children will be involved in will allow and require them to converse with their peers, as well as their teachers. For Example: By planting a plant, the kids may bet with their peers on how tall their plant will grow, ask for assistance on how to fill the planting pot, etc.

3. Will this topic be **meaningful** to your learners? How does it connect to ***their*** real world? Explain.

This topic will be meaningful to our learners because it will teach them about the healthy foods around them. It would help the students when they are planning their snack, lunch or dinner, being aware of what it is they are consuming. It will also encourage the students to carry out conversion with their peers and families about why it is important to eat fruits and vegetables.

4. Does the topic allow learners to **connect to prior knowledge**? Explain.

This topic connects to the students' prior knowledge as they interact with various fruits and vegetables during the day. Whether at home, school, grocery store or farmer market or what they are eating.

5. Will the topic allow learners to **develop problem-solving strategies** and **be creative**? Explain.

The topic of fruits and vegetables allows the students to be creative and work on problem solving strategies at the same time. As students work on different projects such as planting, they have to work together in order to keep their workstation flowing smoothly. They have to be able to communicate with one another if a problem arises. Students may also come across difficulties with their materials that will require additional support which they will have to communicate to their peers or teachers, in order to find a solution.

Students will have the opportunity to be active during this topic in various ways, such as moving around the room while sorting produce or visiting a grocery store or their community's farmer market.

6. Will the topic allow learners to **engage in self-regulation** and **be reflective**? Explain.

This topic can allow learners to engage in self-regulation because, as educators, we can help them identify their emotions and connect them to the colors of the fruits and vegetables. For Example, “Tony says he feels sad, what fruit could we connect his emotion to class? Is he red like the tomato or blue like the blueberry? We could even make a chart that depicts fruits and vegetables, and we can coordinate it with their feelings for the day. For example: “Angela was feeling blue like the blueberry this morning, but now she is feeling vibrant and bright like this lemon.” This activity will provide a moment for the children to be reflective by asking them how they felt about the event. Depending on the popularity of it, it would then help us to decide to generate more situations akin to the one performed.

7. Will the topic help learners to **build on/change their current understanding**? Explain.

This topic will allow learners to build on/ change their current understanding in all aspects of the core subjects they are taught. This topic will expand their understanding of science, math, and social studies. They will build on their understanding in science when they are conducting trial and error experiments with fruits and vegetables in the classroom. They will build on their understanding of math when they are doing diverse mathematical activities as a class using fruits and vegetables. They will expand their understanding of social studies by learning more about the culture and country behind the fruits and vegetables they commonly see.

8. Does the topic allow learners **to gain deeper knowledge of general principles and explanations** of the world? Explain.

This topic allows learners to gain deeper knowledge of general principles and explanations of the world when they are learning the background of the fruits and vegetables, where they come from, the people that plant them and the culture behind the people who are planting these fruits and vegetables.

9. Can children use the knowledge gained through this topic in **meaningful real-world situations**? Explain.

The children can use the knowledge gained through this topic in meaningful real-world situations, such as buying fruit or having a conversation starter with someone about the product. It will also help them better comprehend the way things grow and allow them to take better care of the earth.

10. Does the topic provide opportunities for children to **practice and gain mastery**? Explain.

The topic provides opportunities for children to practice and gain mastery because it will help them practice and gain mastery on the different characteristics of fruits and vegetables as well as the care they need to keep growing.

11. Can you present this topic in meaningful ways for diverse children with **developmental and individual differences**? Explain.

We can present this topic in meaningful ways for diverse children with developmental and individual differences. We can do this by explaining the topic slower or having more or less time for the activity depending on the child. We can also help strengthen understanding for children that are diverse and have differences by educating ourselves as teachers on their background as well as learning styles.

12. Will this topic be **interesting and motivating to the learners**? Does it allow for **autonomy/choice**? Explain.

This topic will be interesting for the learners as they get to explore and experiment with different parts of fruits and vegetables, from sorting, to planting and tasting some of the materials provided. It will encourage the learners to try new fruits and vegetables and pay close attention to their inner and outer appearance. While the learner's interest grows so will their motivation to make their own decisions when eating different meals or snacks. They may begin to venture out and start to try new fruits and vegetables as they become more familiar with them. It will also allow the students to decide what they want to plant and how they want to care for their plants, such as how often they are watered, and how much soil should be given when planting.

STEP 2: LEARN THE CONTENT:

1. Brainstorm with your colleagues. What information do you (the teachers) already know about this topic? List everything you can think of:

- Fruits and vegetables need water and sunlight to grow
- They're different shapes, sizes and colors
- Different fruits and vegetables come from all over the world
- Many fruits and vegetables thrive in different regions
- They can help different parts of the body

2. Gather information from various sources of research. List at least 3 resources for each of the following:

Children's literature
The Tiny Seed by Eric Carle (English, Spanish, Chinese)
Growing Vegetable Soup by Lois Elhert
I Can Eat a Rainbow by Olena Rose
If I were a vegetable or fruit. I would truly want to be.. by Ernestine Powell Maxie

Website Information
BrainPop.com
youtube.com
Sesamestreet.org

Library Identified Resources
CD's- Listening center
E-Books
Books in different languages

3. What did you *learn* from your research?

-Similarities in fruits and vegetables vary in different countries.
-Fruits and vegetables have different names depending on cultures.
-Different cultures prepare the foods in different ways.
-Some fruits and vegetables are more popular in certain regions of the world.

4. What *misinformation* did you find in your original ideas?

During our research we came across the origin of the Mango. The misinformation we had was the true origin, thinking it originated from Central or South America, when in reality it originated in India. This piece of clarification was an important key piece to have for our curriculum, especially for parts of our Social Studies activities.

STEP 3: IDENTIFY KEY CONCEPTS:

What are the Big Ideas/Overarching Questions to be explored in your topic (one sentence for each idea/question) The Big Ideas should be connected to deep understandings of the general principles and explanations of the world.

1. Will it sink, or will it float? Why or why not?

When comparing an apple to a blueberry, the apple would drop, and the blueberry would float. The reason this is, is because the apple weighs more than the blueberry. The children will have a chance to formulate an idea on whichever fruit will sink and float. Furthermore, they will be given some time to weigh the fruits to help them within their experiment. This can heighten their understanding of how weight influences how something sinks or floats.

2. What changes do you notice with the seeds?

While students study the life cycle of the seed, they will be able to make predictions of how the seed will continue to change in the coming days and weeks. Students will be able to document their findings and create their own unique illustrations of the seeds. The observation sheets will work to put together a timeline of a seed cycle. Watching it change from a seed, to its upper layer shedding, cracking of the seed as the roots begin to form, to having a fully formed stem with leaves.

3. What fruits grow best in warmer regions?

We will study the growth of fruits and where they grow regarding regions of warm, cool and/or neutral environments. Each day of the week we will be focusing on a region, while discussing them we will do activities like growing fruit seeds in different temperatures to imitate the climate of the regions we are discussing. This will initially show the children how different fruit grows at different times in different places.

Identify and list 10 key vocabulary terms connected to this topic:

Soil, Seed, Plant, Water, Sun, grow, Sprout, Roots, sink, float

STEP 4: CONNECT YOUR TOPIC TO THE CONTENT AREAS.

WHERE IS THE MATH?

1. Choose 3 of the following math content areas, and describe the Big Ideas and Enduring Knowledge that connects your topic to this content area:

Big Ideas/Overarching Questions: *Through learning the mathematical concepts below, students will show proficiency in their understanding of quantity "how many", identifying shapes, sorting, graphing, number recognition and comparing.*
How many fruits/ vegetables have you collected? Which one has the most/least? Why did you group those (fruits/Vegetables) together? Which graph is higher/shorter, how do you know? What does this shape remind you of? Can you point to the (triangle, circle, square)?

Number & Operations
A Scavenger hunt is a fun activity that can combine Mathematics as well as fruits and vegetables. The students would search around the room to collect fruits and vegetables that correspond with their designated color bin. They would place their gathered items in hand baskets as they walked around. The time granted for the hunt should be fifteen minutes; once the students allotted time is up to search for the items, they can then report back to their bin and count and sort their findings. How many are round, how many are fruits, how many are vegetables. After the students count, they can create operations out of the scavenger hunt materials. For example: one eggplant plus another eggplant equals two eggplants. We can add additional aspects such as creating a visual aid by letting them be artistic in expressing mathematical operations. They could use washable markers and crayons to draw an illustration, or they could create various fruit cutouts as well as math operation signs with fabric and fabric markers to present their understanding of numbers and operations.

Geometry & Space
The students will be looking for shapes in the classroom in everyday objects like cups that have a circle shape in the top and bottom to trace. To ensure that the children understand I will maneuver the objects so that the children can see the shapes the object has. For example, going back to the cup that has the shape of a circle on the top and bottom, I would have the cup sideways so that the circle shapes the cup has is visible. I will also have a chart up with the shapes so that when the kids find an object that resembles a shape, they can take it to the chart and compare the shapes. Once the children find all the objects that have traceable shapes in them, they will put them all in the middle of the tables that I will have preset up in that the tables will be pushed together for the children to all sit together. After the children pick their seats, I will have them choose one fruit and one vegetable to decorate. Along with the fruit and vegetable picture they will select the shape they want to trace inside the fruit or vegetable. they can only choose one shape to trace inside the fruit or vegetable of choice. When they finish tracing, they will then tell me the fruit they choose, the shape of their choice, and trace the shape on the object.

Data Analysis & Probability (Collecting Information, Making Tallies, Sorting, Graphing) Students will be able to sort fruits and Vegetables into groups that contain the same objects. Students will then be asked to try their best counting of each group. The teacher will then add the amount of each object to the bar graph in order for the students to visualized which bar graph is taller/ bigger than the other, smaller/shorter. This will allow students to compare different amounts in a manner in which they can see clearly in a graph with representation.

2. Choose 3 and List developmentally appropriate ways children can learn math in each of the following Learning Centers:

a. **DRAMATIC PLAY (Housekeeping, Dress-up, Role Play)**

⋆Children can learn math through scenarios such as being a construction worker, they will need to count how many blocks it takes to build a house or how many pieces of attire they need to put on when playing the part. Also, a restaurateur may need to know how much flatware, plates, etc they will need to satisfy their customers. A way dramatic play can tie into our topic of fruits & vegetables is that we can help the kids facilitate a tea party or party of some sort and support their imagination in creating the scenario and possibly bringing it to life. As educators we can give them things to think about and investigate such as how many people are going to be in attendance? How many people at the table want pie, so how many ways will you cut it? etc.

b. **SAND AND WATER PLAY**

Sand/ Water station

⋆The kids can also measure the sand and water; they can see how much is needed to fill a cup or beaker. We could ask questions such as do we need more water or less to fill a beaker? etc.

⋆We could also teach the kids about how some objects sink and others float, however in conjunction to our topic we could test out which fruits sink and which one's float. We would have the children weigh the fruits and make a thesis on whether it would sink, or float based on its weight.

c. **SCIENCE/DISCOVERY**

⋆The teacher could set up a fishing for fruits and vegetables, where the kids could use magnetic fishing hooks to capture the plastic fruits and veggies.
The children would identify how many fruits and veggies there are as well as compare and contrast the objects in the tank or bucket by looking for factors such as which ones share the same color? How can you tell the fruits apart, how can you tell the veggies apart? Are they different in size?
↪We can even extend the topic to study the seeds of the fruits and vegetables.

WHERE IS THE SCIENCE?

1. Choose 3 of the following science skills/content areas, and describe the Big Ideas and Enduring Knowledge that connects your topic to this skill/content area:

Big Ideas/ Overarching Questions

Students will explore the process of stability and do careful observation of how fruits and vegetables change or stay the same depending on how they are being used.
What changes did you notice? Did the shape of the fruit or vegetable remain the same? How did the change happen? Does the change happen fast, why or why not? Have you noticed any other changes around you, how, where?

a. Observing

During the observation activity students will sketch the changes they see in a vegetable and a fruit. They will be placed in individual sealed containers for the observation, allowing for the students to move the materials around the room. Students will get the opportunity to see the changes the fruit and vegetable take as they begin to decompose. They will be able to see the before and after results.

b. Predicting, Inferring, Hypothesizing

Students will be asked to make a prediction, infer and share their hypothesis of what will happen if they mix fruits and vegetables and put them in a blender. Students would lay out the steps of what should be added first and what should be added last, noting the changes that are happening inside the blender as each ingredient is added. At the end of the activity students will be able to talk about the predictions they made and if their hypothesis was accurate. This can be about taste, color, texture, and smell.

c. Health & Nutrition Content

Students will learn the nutritional values of fruits and vegetables, learning how they aid the body in staying healthy. Students will learn the benefits fruits and vegetables have when they consume them regularly, and the impact they have on the body. They will get to explore how much protein, natural sugars and the vitamins that are in each of the fruits and vegetables.

2. Choose 3 and List developmentally appropriate ways children can learn science in each of the following Learning Centers:

a. VISUAL ARTS (Drawing, Painting, Sculpting, Writing)

Students will be able to paint any fruits and vegetables with watercolors. They will be encouraged to mix colors together to try to match the object they picked for their project. With this activity students will explore how to mix colors in order to make the color that matches their object.

b. MUSIC/MOVEMENT

As students create their own maracas made from different seeds, they will be able to create different sounds depending on the amount of seeds they use as well as depending on the kind of seeds. Students will each be handed recycled toilet paper rolls in order to create their seed shaker. This activity will demonstrate the different sounds that can be made by different combinations.

c. LIBRARY/LITERACY

With the listening center students will have the opportunity to listen to "The Tiny Seed" by Eric Carle in their desired language. As they listen to the story, they will also be able to follow along with the physical book. This gives them the ability to follow along with the pictures as they handle the book.

WHERE IS THE SOCIAL STUDIES?

1. Choose 3 of the following content areas, and describe the Big Ideas and Enduring Knowledge that connects your topic to this content area:

Big Ideas/ Overarching Questions- *Students will explore how different food and people eat in different cultures.*
Can you make a connection to a different culture? Do you eat any of the same foods? What is different about the way you eat your (specific) food? Have you visited any restaurants from different cultures?

a. Anthropology (How people live in the world)

Students will share their most special meals they share with their families. Students can also share and explore if they have any foods in common, even if they are used in different ways. This will bond the importance of anthropology with food, and how it shapes humas, in all cultures.

b. History (How people and societies change over time)

Students will be able to discuss how they prefer to eat certain fruits and vegetables that they are all familiar with. They will get to share how their families eat the same fruit or vegetables in a different way or in the same way. This will help students make connections with their peers as to how one piece of fruit or vegetable can be eaten in different ways depending on different cultures.

c. Geography (A sense of place)

Students will learn of the most popular or most eaten fruits and vegetables in the countries that represent the class community, and what makes that food more popular in that certain country. They will also understand that food can have familial ties, it can connect us to the

past as well as the present. They can learn that certain fruits and vegetables can only thrive in certain regions.

2. Choose 3 and List developmentally appropriate ways children can learn social studies in each of the following Learning Centers:

a. **TABLE ACTIVITIES (Manipulatives, Puzzles)**

The students will have an opportunity to create a fruit and vegetable salad, in addition to that they will identify and explain what fruits and vegetables they are using and why. This activity will also allow students to share with their peers the different ways they eat the fruits and vegetables at home, also allowing them to make connections.

b. **VISUAL ARTS (Drawing, Painting, Sculpting, Writing)**

Students will learn the origin of fruits and vegetables they are familiar with by adding a pushpin or drawing a red dot on a map. The class will have the opportunity to map fruits and vegetables that are popular in the countries they have close ties to, such as Asia, Ecuador, Honduras and the USA.

c. **SCIENCE/DISCOVERY**

Conducting a taste test- study/observation of fruits and veggies
↪ Through this activity the children will be able to explore their senses. The children will get a chance to touch, smell and taste various fruits and veggies. They will each record what their peers' reaction to the foods were through journaling or holding up a feeling face stick puppet. There will be three children to a group, once everyone has sampled the foods and we have collected the data: we will then create a bar graph. The bar graph will showcase all the evidence collected.

Step 5: Implementing the Curriculum Topic:

Launch/Introduction (How you begin the curriculum topic):
Describe 1 activity:

1. We began the curriculum topic by brainstorming all the facts we know about fruits and vegetables. We talked about how fruits and vegetables grow, how we can create math-based activities surrounding this idea as well as the origin of many products. Fruits and Vegetables share similar characteristics as well as different ones depending on where you go in the world, they can also be labeled differently.

An activity to introduce the kids to fruits and vegetables, would be to show that just like humans need water, food and air to grow and fuel our bodies, so do plants. To launch the

activity of growing plants, my colleagues and I can show animated or real videos of how plants grow and how to tell the difference between a vegetable and a fruit.

Meeting Time (How you sustain and expand the topic):
Describe 1 activity:

1. During meeting time the class will discuss different things we need to survive, which will spark follow up conversations. We can discuss as a community then lead with statements and follow up with questions such as, "Just like you need fruits and vegetables to survive and stay healthy, what other living things need vegetables and fruits?

Creative Arts Activities (Visual Arts, Music, Dance, Drama):
Describe 1 activity

1. We can make a door design to show others what we are learning, such as a split door design that depicts the growth of fruits and vegetables. We could create an interactive part to touch the door and feel as though they are learning and experiencing what we are. For example, sometimes soil can be coarse, so we could glue rice to the part created as soil and paint it black to represent areas of coarse dirt. If the children were to select a strawberry as their choice of fruit, a way we could highlight texture is to glue actual strawberry seeds to a drawing of one.

Read Aloud: Find 2 picture books: 1 fiction and 1 non-fiction):
Describe a literacy extension activity for each book (Include bibliography):

1.Fiction

"The Great Garden Escape" by Erica L. Clymer

As an extension for this book students can take a community walk and reenact the story. Students can use the book to follow the timeline or create their own.
Using their surroundings as landmarks to continue with their crating. This would allow students to share their ideas and work together to make their story flow smoothly. This activity also creates a gateway for students to familiarize themselves with their community.

2.Non-Fiction

"Edible Colors, See. Learn. Eat." by Jennifer Vogel Bass

For this book an extension that can be developed is asking the students to illustrate their own Edible Colors book, adding their own favorite fruits and vegetables they just learned about, and adding the various vivid colors from the book. This can then lead to an Illustration party, which allows students to share what they illustrated and why. This activity also sparks great conversation topics since the students would have learned many interesting facts about the different appearances of fruits and vegetables.

Shared Reading (Songs and/or Poems) Describe 1 activity using either a poem or songs:

(Include a separate document of the poems or song used)

For shared reading we wanted to focus on poetry. Making rhymes with Pres-schoolers not only becomes a fun activity but it also connects to language development. Once our students begin to follow the lines of the poem it will open new opportunities for them to explore.

Poem

What Color

An apple is red.
A blueberry is blue.
A banana is yellow.
A lemon, is too.

A carrot is orange.
An orange is, too.
Fruits and Vegetables
Are good for you!