# Module #4

When To Harvest

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**Driving Question(s)**

-How do we know when we can pick the vegetables?

-In what ways can this food be prepared? What food do we want to make?

-What information do we need to put in the care givers book? What should our book look like?

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 **Overview**

 Students will determine the appropriate times to harvest their vegetables and explore different ways to prepare the food for consumption. They will create a caretakers guide and presentation to show what they have learned. The guide and presentation will all so be used to teach others what the students have learned and to show others how to care for a garden as well.

 **Major Products & Performances**

Lesson 1 – Hands on to harvest our crops

Lesson 2 – Looking through cookbook and choosing a recipe that is agreed upon by the

 majority.

Lesson 3- Preparing the food.

Lesson 4- Designing the care giving manual.

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**Teacher Background**

Once the children choose the vegetable that will be planted then background information needs to be researched to see when to harvest. What will the produce look like when it is time to harvest. What size should it be? One of the vegetables that the children are interested in planting is lettuce. There are two basic kinds of lettuce. Loose leaf and head lettuce. It appears that leaf lettuce grows faster and is more tolerant of varying temperatures. Lettuce typically sprouts in two to eight days when soil temperatures range from 55 to 75 degrees and can be harvested in 45 to 55 days. Choose a sunny location with loose, well drained soil. Lettuce should be keep moist but not wet. Therefore lettuce should be water regularly but be carefull not to over water. It is a good idea to use mulch . This will keep the moisture in and help to keep the weeds out. Harvest lettuce in the morning, after the plants havd had all night to plump up. Wilted lettuce picked on a hot day usually does not revive. Internet resources are a very helpful tool. Some of this information found on [www.gardenguides.com](http://www.gardenguides.com) . This information can be included in the caregivers guide that the children will be developing.

 Growing Tips

-Prepare bed by loosening the soil at least 10 inches deep

-Gradually thin to 5 inches apart.

-Harvest lettuce in the morning

-Use scissors to harvest handfuls of baby lettuce.

-Rinse lettuce with cool water, shake and spin

-Store in plastic baggies

Facts Related to Standards:

Gardening affords children natural opportunities to observe

and understand the living world (Science-.2) Interactive

discussions promote listening and speaking skills (Language

Arts/Literacy-1.) Drawing and painting the caregivers guide

incorporates many standards such as writing (LA4.1).

Understand that objects have measurable attributes, such

length or weight. ( Math 3.1)

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| **Title/Focus**  |  Lesson 1- When To Harvest  |
| **Teacher and Grade Level** |  Pre-K |
| **Overview** | The purpose of this lesson is to teach the students when to harvest their vegetables. They need to understand what the signs are to show that the vegetables for mature enough to harvest. They need to look at the size, shape, and color of the vegetable.  |
| **Standards** | Science1.3-Investigates and problem solves through active exploration of the environment.1.4-Progress in ability to describe and discuss predictions, explanations, and generalizations.2.2-Shows increased awareness and beginning understanding of changes in materials and cause-effect relationships.2.3-Demonstrates expanding knowledge of and respect for the environment.Math3.1-Understands that objects have measurable attributes, such as length or weight.3.2-Estimates the size of objects in comparison to a common unit of measurement such as more/less, short/tall, light/heavy.3.3-Begins to construct a sense of time through participation in daily activities.Social2.3-Deminstrates increasing capacity to follow rules and routines and use materials purposefully, safely, and respectfully.2.6-Uses appropriate communication skills to initiate or join classroom activities.2.9-Uses and accepts negotiation, compromise and discussion to resolve conflicts.2.11-Follows basic routines and rules for play and group participation.4.2-Develops increased ability to make independent choicesLanguage / Literacy1.6-Listens to others and takes turns speaking1.7-Asks questions to get information, seek help, or clarify something that is not understood.2.3-Demonstrates increasing awareness of concepts of print, such as reading from top to bottom, left to right, speech can be written down and print conveys a message.2.12-Recognizes a word as a unit of print |
| **Materials/Advance Preparation Needed** | Books with informational print about harvesting vegetables. Video from the internet that will show the vegetable being harvested. ( About.com/Harvest Lettuce The Chief’s Garden with Teca Thompson). Measuring tools, such as a measuring tape and scales. Items to measure. (Produce) |
| **Procedures/Steps**  |  During a class meeting time, the children will have the opportunity to watch a video that shows the vegetable being harvested. Informational books will also be provided so students can look at the pictures to see what the vegetable should look like when it is ready to be picked. As the students talk about the characteristics to look for the teacher will list them on a large paper. Words such as long/short, heavy/light will be discussed. Then the children will have the opportunity to measure different produce by using the scale or measuring tapes at the math area.  |
| **Assessment (What will be the evidence of student learning?)** | The students will be able to show the teacher pictures of produce that are ready to be picked and be able to give one or two characteristics of the mature produce. |

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| **Title/Focus** | Lesson 2-Choosing the Recipe: Harvesting our vegetables |
| **Teacher and Grade Level** | Pre-K |
| **Overview** | The purpose of this lesson is to have the students choose which recipe they wish to make and then to harvest the vegetables. An important part of this lesson will be to show the children how to harvest the vegetables without damanging the plant or other plants that are close by. |
| **Standards** | Science2.2 Shows increased awareness and beginning understanding of changes in materials and cause-effect relationships, such as recognize that materials can exist in several physical states.Math1.1 Develops increased ability to count in sequence to ten and beyond.1.4 Matches quantity with number symbolsSocial2.1 Develops positive relationships with children and adults.2.10 Accepts guidance and direction form a variety of familiar adults.3.1 Understands and describes the interactive roles and relationships among family membersLanguage/Literacy1.7 Asks questions to get information, seek help, or clarifies something that is not understood. |
| **Materials/Advance Preparation Needed** | Recipe and a review of what to look for when harvesting the vegetables.Teacher will find two appropriate recipes for pre-k to make so students can vote on them. |
| **Procedures/Steps**  |  During class meeting time the students will be given a choice of two different recipes to prepare. A vote will be taken. The recipe with the most votes wins.The characteristics of a mature vegetable will be reviewed as well as the proper way to harvest the vegetables. ( Example: when havesting lettuce the children need to have gentle hands to hold the leaf carefully and to only cut one leaf at a time. Only the larger leaves ) Then the children will go to the garden area to decide which vegetables are ready to be picked. The children need to remember to reach into the garden, and to keep their feet outside of the garden boxes so not to step on the plants. Pickers will be assigned each time vegetables are harvested. The pickers will change each time vegetables are harvested so everyone will get a chance to pick. Vegetables will be taken to the classroom and washed, then stored in the refrigerator. |
| **Assessment (What will be the evidence of student learning?)** | The children will work together and decide which vegetables are ready to harvest. The children will need to show / verbally express which lettuce leaves are ready to harvest and why before harvesting. Each child will also need to point to or verbally express where and how they are going to cut the leaves.  |

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| Title/Focus | Lesson 3- Preparing The Food |
| Teacher and Grade Level | Pre-K |
| Overview | The purpose of this lesson is to show the students how to use the vegetables that they grew in a recipe to eat.  |
| Standards | Science2.2 Shows increased awareness and beginning understanding of changes in materials and cause-effect relationships, such as recognize that materials can exist in several physical states.Math1.1 Develops increased ability to counts in sequence to ten and beyond.1.4 Matches quantity with number symbols2.1 Develops increased ability to recognize addition as putting objects together and subtraction as taking objects apart.2.2 Identifies parts in relationship to the whole.3.4 Begins to incorporate estimating and measuring activities into play.Social2.1 Develops positive relationships with children and adults.2.10 Accepts guidance and direction form a variety of familiar adults.3.1 Understands and describes the interactive roles and relationships among family members.Language/Literacy1.3 Understands and uses increasingly complex and varied vocabulary/sentences in listening and speaking.1.4 Comprehends and expands on oral language.2.3 Demonstrates increasing awareness of concepts of print, such as reading moves from top to bottom and left to right, speech can be written down and print conveys a message. |
| Materials/Advance Preparation Needed | Recipe-- Picture and words displayed so children can see it and follow step by step.Ingredients to prepare the recipeBowl, measuring cups, spoons etc. Any tool, utensil needed to prepare the food. |
| Procedures/Steps  |  Children need to wash their handsHave recipe displayed so children can see each step of the recipe.Children will take turns completing each step.When recipe has been completed it is time to eat.Children will help with the clean up as well as time allows.Example: Children decided to make a toss salad. * Tear 24 lettuce leaves into bite size pieces and place in the bowl.
* Using a plastic serrated knife cut 12 cherry tomatoes into 2 pieces and place in bowl.
* Using a plastic serrated knife cut 2 cucumbers into slices. Then cut he slices into 4 pieces and place them in the bowl.
* Measure ½ cup of Italian Salad Dressing and toss
* Place one scoop of salad into small bowls and enjoy.
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| Assessment (What will be the evidence of student learning?) | Children understand that food can be grown and prepared with out having to go to the store to purchase it. The children talking through and journaling the sequence of steps that they have completed from the time they prepared the soil to eating the salad can demonstrate this. |

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| **Title/Focus** | Lesson 4-Harvest: Design and Create the Caretakers Manual |
| **Overview** | The purpose of this lesson is to design and create a manual or instruction guide to give to people who volunteer in helping with the care of our school gardens.  |
| **Teacher and Grade Level** | Pre-K |
| **Standards** | Science1.6 Collects, describes, and records information through a variety of means to lead to new understanding of the world around them.2.3 Demonstrates expanding knowledge of the respect for the environment.Math3.5 Beginnings to recognize and interpret information presented in tables, graphs and symbols.4.1 Participates in a variety of classroom activities and tasks.4.4 Persist in and complete tasks, activities, projects, and experiences.4.5 Demonstrates increasing ability to set goals and develop and follow through on plans.Language/Literacy1.5 Participates in conversation with peers and adults about topics of interest.2.5 Knows that letters of the alphabet are a special category of visual graphics that can be individually names.4.2 Uses a combination of drawing, dictating, and writing to communicate ideas, thoughts, and feelings.4.3 Deminstsrates an understanding that writing relays a message that can be read.4.5 Uses a variety of writing tools and materials, such as pencils, crayons, and computers. |
| **Materials/Advance Preparation Needed** | Paper, utensils to write and draw with.Have samples of different instruction books and pamphlets for students to look at. |
| **Procedures/Steps**  |  During class meetings, the children need to think about what type ofcaretakers manual they want to make to share with individuals showing how to care for the garden. They need to brainstorm ideas to see if they want to make a book or pamphlet.Then as a class we need to review notes of what we did to take care of the garden so the children can make a written list of all of the needed information to go into the manual.The children need to decide if they want to draw illustrations or have mostly words to explain how to care for the garden. |
| **Procedures/Steps (continued)** | Different small groups can be in charge of certain information needed. Each group can determine how they should share the information. Then the group as a whole can make suggestions before the final draft is completed. |
| **Assessment (What will be the evidence of student learning?)** | The portion of the completed caretakers guide wil be inspected to determine if each student understands how to care for the garden; the student will be sked to explain the process /content of the guide.  |