ELA Unit 1
Introduction to the Garden and Garden Journals

This lesson serves as an introduction to gardening in the classroom. Students will become familiar with the garden, learn garden vocabulary, discuss why a garden is an important learning environment and receive garden journals. A major goal of this lesson is for students to become familiar with the routine of gardening class, so be explicit in explaining procedures and transitions.

Standards:
L.5.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.
W 5. 10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Objectives:
SWBAT recognize common vocabulary used in the garden
SWBAT explain how the garden can be used in the classroom
SWBAT create garden journals to use for documentation of further lessons

Materials
Chart Paper
Garden Expectations
Garden Vocabulary Cards (1 per student)
Garden Journals

Key Points:
Knowledge
- A garden is an area of land where plants are grown.
- Some important garden vocabulary words are:
  - Bed
  - Compost
  - Soil
  - Hoe
  - Trowel
  - Mulch
  - Irrigation
  - Organic
- The garden is an extension of our classroom. It is a place for learning.
- Gardens are important in school because they can teach us about food and where it comes from, provide us with healthy food to eat AND can help us learn our core subjects in a new way.
- A garden journal is a place where we can record our thoughts and findings from the garden.

Skills

- The way we behave in the garden is important for both us and the other plants and creatures in the garden. Because of this, we should behave correctly in the garden at all times.

Essential Questions

Why do we have a school garden?
How can we be safe and successful in the garden?
What does it mean to be healthy? How can a garden help us with that?

Assessment

Garden Journal Entries

Warm Up

KWL Chart (5 min)
Create a KWL Chart to fill in with students. Under the K (Know) column, have students fill in what they already know about gardens or gardening. Under the W (Want to Know) column, have students fill in what they are hoping to learn from or about the garden. The L (Learned) section will be filled in at the end of the unit with the new information students acquired.

Lesson

Review Garden Procedures and Expectations (5 min)
Take a few minutes to review the procedures and expectations your school will be using for the garden with students (for an example of garden procedures and expectations, see .>>>>>>>). Refresh their memories on why these procedures and expectations are important for their success in the garden.

Take a Garden Tour and practice using the procedures discussed above. (10 min)

Explore Garden Vocabulary (10 min)
While you are touring the garden, hand students vocabulary cards with today's vocabulary words on them (under key points). (multiple students should have the same word) Have students recall where those things were in the garden and stand by their word. Once everyone has found their item, have them say, spell and define the word in their group. Then have a student from each group report their word to the class.

Discussion: Why a garden? (10 min)
Go to the garden's outdoor classroom area. Hold a discussion with students about why a school garden might be important to their learning and their health. Get ideas from students first and then supplement with needed facts and information.*

Probable Student Examples

- To have healthy bodies
- To learn to grow food
- To apply knowledge to the real world
- To learn to take care of nature

As students come up with these things, ask them questions like *Why is that important*? or *How do you think you would use that knowledge?*

** Make sure students start to think about the fact that there is a food system and that yes, eating healthy, local food is good for our bodies and personal life but food is connected to much more than just one person. Check out http://www.csgn.org/research for concrete academic justifications for school gardens to share with students.*

Pass out Garden Journals (5-10 min)
Explain to students that these journals will be used each time they are in the garden. Ask and Answer the questions: What is a journal? What are they used for? How can a journal be used in the garden? Let students know of your expectations for their garden journals.
Any additional time can be used to decorate, personalize, or write in their journals.

Example Journal Prompts:

- *Today in the garden I saw….*
- *If I were a plant in the garden I'd be….*
- *List and describe the characteristics of two kinds of plants from the garden. What is similar about them? What is different?*
- *Pretend you are a worm in the garden. What would you see? What would you do? How would you feel?*
- *My favorite thing in the garden today was…. My least favorite thing was….*

ELA Unit 10
Ecosystems – Storytelling in the Garden

This lesson builds students understanding of the art of storytelling. Students will hear a Native American folktale and discuss the meaning and use of narratives. Students will then explore the garden ecosystem and create a storyline based on their observations

Standards:
W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Objectives:
SWBAT describe what a narrative is and how it is used
SWBAT arrange imagined events in a coherent sequence
SWBAT use personal experiences from the garden to create a narrative.

Materials
The Story, Brer Rabbit Earns a Dollar a Minute
http://americanfolklore.net/folklore/2010/07/brer_rabbit_earns_a_dollaramin.html
Garden Journals or paper
Narrative Outline Handout

Key Points:
Knowledge
- Many cultures use storytelling as a way to teach their children and pass down the history of their people.
    - Many Native American tribes use stories or narratives
- A sequence is the order something happens in.
- A narrative is a story or something that tells about events that happened.

Skills
- We can arrange things we imagine in a sequence by putting them in the order they would happen in real life.

Garden Vocabulary
Ecosystem

Essential Questions
Why is storytelling important in many cultures?
What is an ecosystem?
What is the relevance of your story?

Assessment - Narrative notes/brainstorms in garden journals & finished narratives next week.

Warm Up

What is a narrative? (15 min)

Explain to students that you are going to tell them a *narrative*.

Read the Native American Trickster Tale, Brer Rabbit Earns a Dollar a Minute

Ask students what they think the word narrative means based on what they heard. Guide them to discover that a narrative is a story; something that tells about events that happened. Ask a few students to summarize this narrative. What happened? Write down the key points of their summary in the order they give them. Discuss if the narrative would make sense if the order was changed. Give examples of what that would look like. Let students know that narratives follow a sequence, or order of events that helps the story make sense. Let them know that today, we will be exploring the garden and its creatures in order to find inspiration for the narratives we will be writing!

Lesson

Exploring Ecosystems (10 min)

Take the students to the garden and have them split up into groups of 3 or 4. Provide each group with a space in the garden to observe what is happening there. Let students know that we will be exploring our garden's ecosystem. Remind them that an ecosystem is all of the parts of the garden working together. This includes the plants, bugs, dirt, microorganisms, etc. Have students write all of the things that happen in their observation area in their garden journals in a span of 2 minutes. Make sure to explain that they need to take note of everything, even the little things. Think about bugs, plants, dirt. What is going on here? Have each group member compare their notes and discuss what they saw.

Brainstorming and Setting Up Narratives (15 min)

Offer students the choice to work independently or to stay with their group to brainstorm narrative subjects and sequences. Remind students that a narrative is a story and that our stories will be based on the garden ecosystem. Ask students to think about the parts of a story. What do we need to include. (characters, plot, dialog, details, etc) Write their answers on the board (if available) or chart paper. Have them follow along and write their answers in their journals. Have each student or group come up with a list of characters and events that they would like to include in their story. Let them know that they will be adding dialog and details during their next garden class period.

Independent Work (10 min)

Have students complete the story outline worksheet for their narrative. Demonstrate with a think-aloud if they have not had experience with this before. They should fill in the boxes using the things they or their group brainstormed in the last section.

Closing (5 min)

Ask: *What is an ecosystem? How can we use what is in an ecosystem to tell a story? Why would we want to?*

ELA Unit 11
Ecosystems – Oral Traditions in Storytelling

This lesson is an extension of students' knowledge of storytelling. They will continue to draft their own story and learn about oral traditions and how telling a good story in an engaging way can help it stick with people for generations.

Standards:
W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words.

Objectives:
SWBAT use personal experiences from the garden to create a narrative.
SWBAT describe what it means to have oral traditions
SWBAT present their story orally to their group

Materials
Dialog visual aids (ex: a cartoon with speech bubbles, an excerpt of text, etc)
Chart Paper
Garden Journals

Key Points:
Knowledge
- Many cultures use storytelling as a way to teach their children and pass down the history of their people.
    - Many Native American tribes use stories or narratives
- A narrative is a story or something that tells about events that happened.
- Oral traditions are parts of culture or tradition that are passed down by word of mouth

Skills
- By presenting things orally in an engaging way, we can help people remember our stories.

Garden Vocabulary
Tradition

Essential Questions
What is an oral tradition?
How can we establish oral traditions?
How does your story compare to the trickster story we heard last week?

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Assessment
Narrative Presentation

Warm Up
What is an oral tradition? (10 min)
Lead a discussion that helps students discover what an oral tradition is. Ex: *Think about the word oral, if we go to the dentist to take care of our oral health, what do you think the word oral means? Do you have traditions in your family? What does it mean if you have traditions in your family?* Guide students to gather that an oral tradition is a part of culture that is passed down by word of mouth.

Lesson
Finishing dialog and details (15 min)
Discuss what dialog is with students. Have them think about their characters. What should their characters say to enhance the events in their story? How do we write dialog? Use chart paper to demonstrate adding dialog to a story outline. Finally, discuss what a detail is. What is it used for? How can we add details to our stories? What kind of personality does your character have? What do they look like, etc. If you have talked about adjectives have them brainstorm adjectives that could be used to describe some things that may appear in their stories. Make a class list or have students record their ideas in their journals. Have students add dialog and details to their stories.

Oral Narration (20 min)
Have students share their stories in their groups. If you have time, have students share them with the whole group instead so that everyone can be a part of your class's oral tradition!

Closing (5 min)
Ask students: *How do you think you could keep your oral tradition going for years to come?*

ELA Unit 2

Harvest Your Words – An Introduction to Garden Poetry

Adapted from kidsgardening.org and in collaboration with The Poet Warriors Project

In this lesson, students will be exploring garden elements using their five senses. They will then use their knowledge of plants and figurative language to write descriptive phrases that will later be turned into poetry.

Standards:

RL 5.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.

RF 5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.

W 5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

L 5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

L 5.5c Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Objectives:

SWBAT summarize and interpret grade level appropriate garden poetry
SWBAT explore garden elements using their five senses
SWBAT use figurative language to describe garden elements

Materials

Poetry Samples (see examples at the end of the lesson)
Word Harvest Worksheet OR have students make the chart in their garden journals

Key Points:

Knowledge

- A poem is written or spoken word that is designed to express experiences, ideas, or emotions in a vivid and imaginative way.
    - A poem can be whatever the author makes it. There is no one right way.
- The five senses are touch, taste, sight, smell and sound
- Figurative language is whenever you describe something by comparing it to something else.

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Skills

- We can interpret a poem by asking ourselves different questions about its contents
    - *What do you think this poem is about?*
      Does the poem create an image for you?
      How does it make you feel?
      How do you think the poet was feeling, or trying to tell us?
      Do they help you see the subject (e.g., the wind, dandelions) in a way you didn't before?
      From whose point of view is it written?
      Does it have a rhythm?
      Does it rhyme?
      Are there some words whose meanings you don't know?

- We can use our five senses to help us describe different things in the garden. If we experience these senses first, we can write down what happened and how we felt in order to help us create poetry that uses interesting language later.

Garden Vocabulary
Harvest

Essential Questions
What is a poem?
How can the five senses be used to create poetry?
Why do poets often use figurative language?

Assessment
Word Harvest Worksheet
Independent Figurative Language Samples

Warm Up/Hook
Sample Poem (10-15 min)
Read the poem El Florida Room by Richard Blanco out loud with students. Ask the questions:
What do you think this poem is about?
Does the poem create an image for you?
How does it make you feel?
How do you think the poet was feeling, or trying to tell us?
Do they help you see the subject (e.g., the wind, dandelions) in a way you didn't before?
From whose point of view is it written?
Does it have a rhythm?
Does it rhyme?

Lesson - *What is poetry* (10-15 min)
Take a few minutes to review what a poem is with students. What does a poet do differently than another kind of author?
You may want to share some poets' description of what poetry is to get them thinking out of the box.

Emily Dickinson: If I feel physically as if the top of my head were taken off, I know that is poetry. These are the only ways I know it. Is there any other way?

Carl Sandburg: Poetry is a journal of a sea animal living on land, wanting to fly the air.
Poetry is the synthesis of hyacinths and biscuits.
Poetry is the silence and speech between a wet struggling root of a flower and a sunlit blossom of that flower.

Discuss the different kinds of descriptive language used in poetry (think back to the Blanco poem), including sensory and figurative language. Have students practice changing a simple phrase "I walked in the garden" into poetic, descriptive language. (Add a color we see in the garden, a sound, the way something feels there, the taste of something) Now what happens there?
Let student know that today we will be "harvesting" this kind of language from the garden to use to write poems later. Let students know that they can write from their own perspective or choose to write from the perspective of something else like a bug or plant in the garden.

In anticipation of Part 2 of this project, have a brief class discussion about the difference between observations and feelings. Ask your students, *What does it mean to observe something?* (It means to study something with all of your senses). *How are observations different from feelings and reactions?* (Observations are made from external stimuli, and reactions and feelings come from inside of us.) Reread the poem. Ask, *What do you think the poet is observing in the poem? What are the poet's reactions/feelings?*

Sensory Garden Walk (15 min)
Explain that in the garden they'll take a few minutes (5 to 10 minutes) to quietly observe one thing that captures their attention -- a puddle, for instance. Have them record what they sense about it (e.g., wet, shiny, shallow, chilly) in the Observations column, and their feelings and reactions to it (my dog would drink that; splashing with rain boots; makes me shiver) in the right column. If it's not possible for them to use all their senses (tasting the water in the puddle is out of the question!), suggest that they imagine what it tastes like.
* If going outside isn't an option due to weather or other circumstances, ask students to take a stroll through the garden in their memories, and pick one thing they remember strongly: perhaps tasting freshly picked strawberries, or pulling weeds. Have them take a few minutes to imagine using all their senses, even the unlikely (What does a strawberry sound like?), to observe the object or activity, recording these and resulting feelings that arise.

Figurative Language (20-25 min)
Review what figurative language is with students. (Figurative language is whenever you describe something by comparing it to something else). Choose a few examples of figurative language to have them try:

Personification: For something fun, ask them to give a bug/plant in the garden the abilities that a person has, and write a poem from the day in the life of a bug/plant in the garden.

Simile/Metaphor: Ask them to write a poem where you compare a veggie/flower to a person they know, and have them brainstorm all the ways they're alike. (e.g. my baby sister is like an apple because she's sweet, plump, she's growing, she adds a lot of flavor to the world, etc)
If they want to do something more serious, ask them to think about all the things around the garden, the sun, the rain, the soil, the shovels, the seeds, the plants, the bugs, etc, and ask them to compare themselves to one. (e.g. A shovel: it works hard, makes things happen, doesn't get much appreciation because the flowers get all the attention)

Challenge students to choose one object or encounter from their garden experience today and use figurative language to describe it. They should take their observation and turn it into a detailed, poetic description like we did at the beginning of class. *How does this colorful language help enhance a listeners understanding of their experience?*
Students will be using these writing samples to construct finished poetry next week.

Closing (5 min)
Have a few students share out their figurative language samples.
Ask, *how do you think the five senses can be used to create poetry?*
Why do poets often use figurative language? What does it help us do?

Suggested Poetry Sample
El Florida Room by Richard Blanco

Not a study or a den, but *El Florida*
as my mother called it, a pretty name
for the room with the prettiest view
of the lipstick-red hibiscus puckered up
against the windows, the tepid breeze
laden with the brown-sugar scent
of loquats drifting in from the yard.

Not a sunroom, but where the sun
both rose and set, all day the shadows
of banana trees fan-dancing across
the floor, and if it rained, it rained
the loudest, like marbles plunking a
cross the roof under constant threat
of coconuts ready to fall from the sky.

Not a sitting room, but *El Florida* where
I sat alone for hours with butterflies
frozen on the polyester curtains
and faces of Lladró figurines: sad angels,
clowns, and princesses with eyes glazed
blue and gray, gazing from behind
the glass doors of the wall cabinet.

Not a TV room, but where I watched
Creature Feature as a boy, clinging
to my brother, safe from vampires
in the same sofa where I fell in love
with Clint Eastwood and my Abuelo
watching westerns, or pitying women
crying in telenovelas with my Abuela.

Not a family room, but the room where
my father twirled his hair while listening
to 8-tracks of Elvis, and read Nietzsche
and Kant a few months before he died,
where my mother learned to dance alone
as she swept, and I learned Salsa pressed
against my Tía Julia's enormous breasts.

At the edge of the city, in the company
of crickets, beside the empty clothesline,
telephone wires and the moon, tonight
my life is an old friend sitting with me
not in the living room, but in the light
of *El Florida*, as quiet and necessary
as any star shining above it.

Suggested Garden Poetry Books

Old Elm Speaks by Kristine O'Connell George
Color Me a Rhyme and Fine Feathered Friends by Jane Yolen
Cactus Poems by Frank Asch
Footprints on the Roof and How to Cross a Pond by Marilyn Singer

DELTA FRESH FOODS
FARM TO SCHOOL

ELA Unit 3
Writing Garden Poetry
Adapted from kidsgardening.org and in collaboration with The Poet Warriors Project

In this lesson, students will be using the descriptive phrases they gathered in the last lesson to craft a garden poem.

Standards:
RL 5.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
RL 5.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
RF 5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
W 5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
W 5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.)
L 5.3a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
L 5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
L 5.5c Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Objectives:
SWBAT summarize and interpret grade level appropriate garden poetry
SWBAT create a garden poem using experience, figurative language and correct conventions of writing.

Materials
Garden Poems (see examples at the end of the lesson)
Completed Word Harvest Worksheet OR chart in their garden journals
Clip Boards or other sturdy writing material
Thesauruses

Key Points:
Knowledge
- A poem is written or spoken word that is designed to convey experiences, ideas, or emotions in a vivid and imaginative way, characterized by the use of language.
    - A poem can be whatever the author makes it. There is no one right way.
- Poetry is enhanced when we use sensory details and figurative language to help readers imagine what we experienced.

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Skills

- We can interpret a poem by asking ourselves different questions about its contents
    - *What do you think this poem is about?*
      Does the poem create an image for you?
      How does it make you feel?
      How do you think the poet was feeling, or trying to tell us?
      Do they help you see the subject (e.g., the wind, dandelions) in a way you didn't before?
      From whose point of view is it written?
      Does it have a rhythm?
      Does it rhyme?
      Are there some words whose meanings you don't know?
- We can write poetry when we link descriptive phrases together in a purposeful order to set a tone, bring to mind an image or share an emotion.

Garden Vocabulary
Root
Blossom

Essential Questions
What is a poem?
Why would people choose to write poetry?
How is your poem similar to the other garden poems we read? How is it different?

Assessment
Finished Poems

Warm Up/Hook
What is poetry (5 min)
Take a few minutes to review what a poem is with students. What does a poet do differently than another kind of author? Discuss the different kinds of descriptive language used in poetry, including sensory and figurative language. Let student know that today we will be using the words and phrases we gathered last week to create our own poems.

Lesson
Conventions of Poetry (15 min)
Read a few short poems (examples below) with students outside in the garden. Have them think-pair-share (think about the poem individually while it is read, share their thoughts with a partner, choose a few partner pairs to share their thoughts with the group) the meaning of each poem or how it made them feel. Why do you think the author chose to structure the poem the way he/she did? What did it make you think about? Could you picture it in your mind? Why/why not?

Compose a Poem (15 min)
Give each student a clip-board or other sturdy writing material as well as their notes from the last lesson. Discuss how students can use and edit their notes to fit their poem's composition. Remind them that they can change their point of view from themselves to that of a bug or plant. This is a time when there is no one right answer. Have each student find his or her own space in or around the garden and begin to construct their poem. If students are struggling with the free-form idea of a poem, provide them with a solid structure to start with such as a haiku or diamante poetry form. Provide students with thesauruses to "spice up" their language and circulate to help students compose and edit their poems.

Closing (5 min)
Have students either share their poems in partners or choose a few students to share with the whole group.

Suggested Garden Themed Poems

Digging Potatoes, Sebago, Maine by Amy E. King

Summer squash and snap-beans gushed
all August, tomatoes in a steady splutter

through September. But by October's
last straggling days, almost everything

in the garden was stripped, picked,
decayed. A few dawdlers:

some forgotten carrots, ornate
with worm-trail tracery, parsley parched

a patchy faded beige. The dead leaves
of potato plants, defeated and panting,

their shriveled dingy tongues
crumbling into the mud.

You have to guess where.
The leaves migrate to trick you. Pretend
you're sure, thrust the trowel straight in,
hear the steel strike stone, hear the song
of their collision—this land is littered
with granite. Your blade emerges
with a mob of them, tawny freckled knobs,
an earthworm curling over one like a tentacle.
I always want to clean them with my tongue,
to taste in this dark mud, in its sparkled scatter
of mica and stone chips, its soft genealogy
of birch bark and fiddleheads, something

that means *place*, that says *here*,
with all its crags and sticky pines,

its silent stubborn brambles. This
is my wine tasting. It's there,

in the potatoes: a sharp slice with a different blade
imparts a little milky blood, and I can almost

smell it. Ferns furling. Barns rotting.
Even after baking, I can almost taste the grit.

The Red Wheelbarrow by William Carlos Williams
so much depends
upon
a red wheel
barrow
glazed with rain
water
beside the white
chickens.

Blueflags by William Carlos Williams
I stopped the car
to let the children down
where the streets end
in the sun
at the marsh edge
and the reeds begin
and there are small houses
facing the reeds
and the blue mist in the distance
with grapevine trellises
with grape clusters
small as strawberries
on the vines
and ditches
running springwater
that continue the gutters
with willows over them.
The reeds begin
like water at a shore
their pointed petals waving
dark green and light.
But blueflags are blossoming
in the reeds
which the children pluck
chattering in the reeds
high over their heads
which they part
with bare arms to appear
with fists of flowers
till in the air
there comes the smell
of calmus
from wet, gummy stalks.

Suggested Poetry Books

Old Elm Speaks by Kristine O'Connell George
Color Me a Rhyme and Fine Feathered Friends by Jane Yolen
Cactus Poems by Frank Asch
Footprints on the Roof and How to Cross a Pond by Marilyn Singer

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ELA Unit 4
Nutrition – Commercial Spot

In this lesson, students will be exploring the taste and nutritional value of different garden plants. They will taste test and research nutritional value to choose their favorite garden plant and then write a 60-second commercial script designed to convince people to grow and eat it.

Standards:
RI 5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
W 5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
W 5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) up to and including grade 5 here.)
W 5.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
W 5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
W 5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
SL 5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
SL 5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
L 5.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.

Objectives:
SWBAT speak knowledgably about the benefits and nutritional value of their favorite garden food
SWBAT use multiple sources to support their opinion
SWBAT write a persuasive piece convincing people to eat their favorite garden food.

Materials
Samples of Garden Veggies
Garden Journal or Paper
Research Question Ideas
Commercial Script Guide

DELTA FRESH FOODS
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Key Points:
Knowledge
- Every garden food has its own taste and nutritional value
- When doing research it is a good idea to gather information from more than one source. It makes your claims more *credible*.

Skills
- We can research or gather more information about something in order to support our opinions.

Garden Vocabulary
Nutrition/Nutritious

Essential Questions
What do we mean when we talk about "nutritional value?"
What is your favorite garden food? Why?

Assessment
Commercial Script Guide

Warm Up/Hook
Taste Test (15 min)
**before doing this lesson, make sure you are aware and conscious of any food allergies students may have.*
Students will be provided with a plate of various garden grown foods (if your garden is not in the season to harvest, go to the grocery store and purchase produce that could/would grow in your garden: different kinds of lettuce, kale, spinach, broccoli, sugar snap peas, squash, beets, radishes, carrots, Have students make a chart (pictured below) and record observations in their garden journal. Discuss different ways to describe the taste (bitter, sweet, crunchy, tangy, etc) and appearance (color, size, shape, etc) of something.

Food	**Like/Dislike**		**Taste**	**Appearance**
Sugar Snap Peas	Yum X	Yuck	Crunchy, had to take them out of the pod to eat them, a little sweet,	Green, in a pod, sphere, small
Broccoli	Yum	Yuck X	tasted like dirt, a little crunchy,	Green, has a trunk with lots of little things sticking up from it
	Yum	Yuck		
	Yum	Yuck		

DELTA FRESH FOODS
FARM TO SCHOOL

Lesson

Choose Your Favorite (5 min)

Have students look at their observation chart and pick a favorite from the vegetables they liked. They could also choose a vegetable that they didn't necessarily like the taste of but they thought was interesting. Let them know that they will be doing a research project based on the vegetable they choose.

Think Aloud/Model Research (10 min)

Do a brief introduction on how you will have your students research (think about if they will be doing all book research, if they will be able to use the internet or personal sources, etc). Review how to find and cite information. Do a think aloud demonstration of finding information about their vegetable in multiple sources. Model how to write down/highlight important information and keep track of where that information came from.

Research Nutritional Value (15 min)

Provide students with the list of research questions to help guide their search as needed. Let students explore all of the resources you have available in order to gather information from multiple sources. Remind students to keep track of where there information is coming from. Have students store all of their information in the same place to be used for next week's lesson.

Closing (5 min)

Ask a few students: *What is your favorite garden food so far? Why?*

Tell students, *now that we know our favorite garden foods and have or will have research to back it up, we will be writing our commercials to tell the world why they should love it too!* Give the Commercial Script Guide worksheet for planning and writing their commercial script (this can be assigned as homework or completed during another class period). Check for understanding/questions before having students work independently.

ELA Unit 5
Soil and Compost
Adapted from the Original Roots Garden Club Curriculum

This lesson is an introduction to the soil and its physical and living components. The following lesson will connect the quality of soil with farm management and larger food systems.

Standards:
RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*.
RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

Objectives:
SWBAT identify the physical and living components of soil
SWBAT create a compost pile

Materials
- "Soil – Massachusetts Can't Grow Without It"
- "Rocks to People Background Info"
- "Rocks to People Diagram"
- Apple and Knife
- At least one day before the lesson create a soil layer demonstration. Fill ¾ of a clear container with soil and the rest with water (not quite reaching the top). Shake container vigorously for at least two minutes and let it sit for at least a day before the lesson.
- Garden Journals or Paper
- Flip Chart
- Soil Samples/4 Soil Particles

Key Points:
Knowledge
- All food comes from the dirt
- Soil is made up of different parts
- It is important to have healthy soil

Skills
- Healthy dirt is made up of different nutrients. To provide those nutrients, we can make compost using a healthy ratio of "browns and greens" or carbon and nitrogen rich ingredients.

Garden Vocabulary
Compost

Essential Questions
Why is dirt important?
What makes up soil?

Assessment
Soil Diagram
Compost Participation

Warm Up
Demonstration (10 min)
Take out the apple and knife and follow the directions on the "Soil—Massachusetts Can't Grow Without It" card. Perform the demonstration for the students as an introduction to the lesson and to emphasize the important but precious and fragile resource that we grow our food from.

Lesson
What is Soil? (10 min)
Explain that we will now be exploring the composition or make-up of soil so that we can make better informed decisions about how to build the soil health on our garden.

Lead the group in an initial brainstorm on "What Is Soil?"

Pass out blank paper and pens to students and tell them to follow along with you as you diagram what the soil is made of.

Draw the outline of the Rocks to People diagram on the flip-chart and tell the students we will be investigating the process between Rocks and People. Write soil at the top of the circle and then physical and living below (see diagram)

Under "physical," write the four particles (sand, silt, clay, organic matter), and give out samples. Ask the students to come up with descriptions for the types of particles that are in the samples. Ask them to think about size, moisture, weight and how a plant could grow in that medium. Write the descriptions of the particles below the names of the particles on the flip-chart.

Explain that soil particles contain the nutrients plants need to live (nitrogen, phosphorous, and potassium).

Show the group the soil layer jar. All soils are a mixture of the various particles we just described. *What type of mixture does our soil have? How can you tell? What is happening in this jar? What do the layers represent?*

The different particles they just examined are mixed into the soil but out in the jar after water was added. Remind the group of their observations on the weight of the different particles and show that the heavier particles are on the bottom, the lightest on top. Sand is lightest, then silt, then clay.

Next switch to the living column, and brainstorm on what parts of soil they think fit into that category (plants, roots, worms, bugs, etc…) Stress microorganisms and explain that bacteria aren't always bad and for healthy soil we need soil bacteria.

Ask the group what they think the soil life needs to live. The same three things people need! Air, water, and food. The soil life gets these things from soil particles. Have the group guess which of these soil particles would be best at providing food, air and water. Have them think about the texture and particle size of the soil components. (Sand has big particles with room for air, clay holds water well; living particles that break down in soil provide food or organic matter.) Write "particles provide" above the list of particles and then next to each particle write the corresponding resource it provides the soil (air, water or food). See diagram for help.

Garden Activity - Compost (5-10 min)
Today we've been focusing on healthy soil and the nutrients in the soil that make our plants healthy. When the plants "eat" these nutrients they leave the soil so unless they are put back in, the soil becomes unhealthy. We put the nutrients back in by composting. Compost is decomposed or broken down organic matter from the garden, both our food waste and plant waste. This is a process that happens naturally everywhere in nature, but we can speed up this process by using compost bins. Not only does composting help the soil but it also allows us to reduce the amount of waste that goes into landfills. Instead of throwing all our food away we can put it in a compost bin.

Guide students through the process of how to make compost. What should we add to the compost? What shouldn't we add? What helps compost break down? How do we take care of it? What will happen once we do this stuff? (for tips and tricks as well as other resources on composting, check out: http://compost.css.cornell.edu/schools.html)

Have students practice shredding boxes or putting weeds in the compost. Have kitchen scraps available for them to add and mix in. If possible, provide shovels or pitch forks for students to mix and aerate the compost pile.

Closing
Ask: *Why is having good dirt important? What are some things we can do to keep our compost healthy?*

ELA Unit 6
Soil and Compost - Dirt Made My Lunch
Adapted from Got Veggies: a youth garden-based nutrition education curriculum

This lesson is designed to teach students about the connection between soil and food. The central activity, Deconstructing a Cheeseburger, asks students to help trace ingredients back to the soil, showing how we depend on healthy soil in order to eat.

Standards:
RI.5.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

Objectives:
SWBAT trace foods from origin to table
SWBAT describe the connection between healthy soil and healthy food
SWBAT write an informative text, tracing a food item from origin to table

Materials
"Dirt Made My Lunch" YouTube video
Photos or drawings that illustrate how common cheeseburger ingredients can be traced back to the soil
Garden Journals or Paper
Display Board
Food: dill, cucumbers, mustard seed, peppercorns, vinegar, water and salt

Key Points:
Knowledge
- All food comes from the dirt
- Origin means where something started
- Because all of our food comes from the dirt, it is important that the dirt stays healthy.

Skills
- We can find the origin of our food by starting with the finished project and tracing each piece back to the dirt.

Garden Vocabulary
Origin

Essential Questions
Why is dirt important?
Can we have plants without dirt? Can we have food without plants?

Assessment
Independently deconstructed food

Warm Up
Song – Dirt Made My Lunch (5 min)
Play "Dirt Made My Lunch" by the Banana Slug String Band (this video can be found on and downloaded from YouTube)
Briefly discuss the importance of soil with a series of questions: Could we have plants without dirt? Could we have food without plants? Could we have food without dirt? If doing this lesson in the garden, have students scoop up a handful of dirt and examine it during the discussion. Leave questions open-ended as a set-up for the Deconstructing a Cheeseburger activity to prove that "dirt made our lunch."

Lesson
Deconstructing a Cheeseburger (10 min)
Draw columns on a display board for several cheeseburger ingredients and place the appropriate image at the top of the column (bun, burger, cheese, pickle, tomato, etc). Then, taking one cheeseburger ingredient at a time, challenge the students to post on the display board as you connect each ingredient to the soil. For example:

BUN	BURGER	CHEESE	PICKLE	TOMATO
Flour	Beef	Milk	Vinegar	Tomato Plant
Wheat	Cow	Cow	Cucumber	Soil
Soil	Grass	Grass	Cucumber Plant	
	Soil	Soil	Dill Plant	
			Soil	

Lunch Makes Our Dirt (5-10 min)
Look for stages of decomposition in the garden and/or the compost pile students learned about at the beginning of this unit. Have students begin to record the stages of decomposition in their garden journal. Discuss why lunch making our dirt can help to keep the soil healthy and full of nutrients.

Deconstruct Another Food (5-10 min)
Give students another common food to deconstruct or have students choose a food to deconstruct. (pizza, peanut butter and jelly sandwich, burrito, chips and salsa, etc) Have them make a deconstruction chart in their garden journals for that food. Challenge them to share this activity with their parents/guardians.

Closing (5 min)
Ask students: *Why is dirt important? How does it connect to what we eat? What is an example of that?*

Supplemental Activities

Kids Garden Refrigerator Pickles

Supplies:

Two quart size jars with lids
1 cup dill (flowers, seeds and stems all work)
5-6 medium cucumbers
4 pinches of mustard seed
6 black peppercorns
½ cup vinegar
2 cups water
8 teaspoons salt

Harvest (or purchase), wash and slice the cucumbers into wedges. Place them in a bowl with the dill and salt and mix them by hand or with a mixing spoon. Using two mason jars, add to each 2 pinches of mustard seed, 3 peppercorns, ¼ cup of vinegar and one cup of water. Add half of the dill/salt/cucumber mixture to each jar. Seal the lid and mix the pickles until you can't wait any longer to eat them (minimum 10 minutes).

DELTA FRESH FOODS
FARM TO SCHOOL

ELA Unit 7
Compost – A Comparison

This lesson is designed to get students more acquainted with the compost process. Students will be comparing hot composting practices with that of vermicomposting. They will read two informational texts, one about composting and the other about vermicomposting. Students will then engage in group discussion using discussion roles to compare the two kinds of compost.

Standards:
RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
RI.5.5 Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.
RI.5.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
RI 5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
RI 5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
W 5.2c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*).
W 5.2d Use precise language and domain-specific vocabulary to inform about or explain the topic.
W 5.2e Provide a concluding statement or section related to the information or explanation presented.
SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

Objectives:
SWBAT compare and contrast hot composting to vermicomposting
SWBAT gather information from multiple texts to support an idea
SWBAT write an informative text about compost

Materials
Grade Level Appropriate Texts on Hot Compost and Vermicompost
Suggested Titles:
Composting: Natures Recyclers by Robin Koontz
Compost: Growing Gardens from Your Garbage by Linda Glaser
Compost Stew: An A to Z Recipe for the Earth by Mary McKenna Siddals
The Worm Book by Loren Nancarrow and Janet Hogan Taylor
What's Sprouting in my Trash by Esther Porter
Pee Wee's Great Adventure: A guide to vermicomposting by Larraine Roulston

Key Points:
Knowledge
- Because all of our food comes from the dirt, it is important that the dirt stays healthy.
- There are different ways to make healthy dirt
- Hot compost happens when food breaks down and creates energy
- Vermicompost is compost that is broken down by worms

Skills
- *We can compare the different kinds of compost to find out which one would work best for our school or personal use.*

Garden Vocabulary - Decompose

Essential Questions
What makes healthy dirt?
Why is it important that our dirt is healthy?
What is the difference between hot and vermicompost?
Which one would you rather use? Why?

Assessment - Group presentations on compost

Warm Up
Compost Check (10 min)
By now, the compost pile should have been going for about 5 weeks. Take this time to check in with the pile. Talk about the heat that is evident. If you have a compost thermometer, take the temperature of the pile. If not, have students feel the heat with their hands (if you turn the pile, steam should come from the middle so students don't have to touch the actual compost). Have students turn its contents and record the different stages to decomposition in their journals. Is it smelly? Compost that is done correctly should not smell bad, it will just smell like dirt. Remind them of the elements that make up a good compost pile. Is yours balanced? Does it exhibit the right temperature and moisture levels? Why or why not?

Lesson
Lesson Set Up (5 min)
Explain to students that there are two major composting techniques that help make healthy soil. As a whole group discuss the components of healthy dirt. Both of these methods help us get good compost but the process is a little different in each method. Today we will learn about both kinds and you will be able to decide which kind of compost would work for you and your family.

Read Text and Group Discussion (10-15 min)
Split students into two groups. One will learn about the hot composting method and the other will learn about vermicomposting. Present each group with text on their assigned method. Assign roles in each group (reader, recorder, speaker, etc for more ideas see http://www1.center.k12.mo.us/edtech/emints/resources/roles.htm).

Allow each group 10-15 minutes to research and discuss their composting method. Provide them guiding questions as needed. At the end of the allotted time period, have the group speaker present their information to the whole group.

Closing: Present Findings (5-10 min)
Speakers from each group will present the information they gathered to the rest of the class. Then the teacher should guide a discussion on the similarities and differences of the two processes. Have students choose which kind of compost they think would work for their family at home.

Supplemental Activities
Have students write their opinion about which compost they would choose for their family. They should write an informative piece about compost and why they would choose the method they think would work for them. Make sure to review the components of good informative writing and how to make conclusive statements.

ELA Unit 8
Food Systems – An Introduction

This lesson begins to connect the work students are doing in the garden to the larger food systems that determine where our food comes from. Students will watch a segment from a video (Nourish) and use the story of commodity corn and an heirloom tomato to understand the costs and benefits of local vs industrial food systems.

Standards:
RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*.
RI.5.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.
RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

Objectives:
SWBAT define a food system
SWBAT compare and contrast industrial and local food systems
SWBAT trace the origins of food

Materials
Copies of " Industrial Food Systems" and "Local Food Systems" from the Nourish Curriculum for each student
Copies of Industrial vs Local Food Systems Graphic Organizer
"Food Systems Comparisons" role play cards
Flip-Chart or White Board
Computer or Television to show a video
Agriculture + Industry Video (0:00-2:30) https://www.youtube.com/watch?v=JojKbhNGElE

Key Points:
Knowledge
- A food system is the process that food goes through in order to get from its origin or starting point to your plate.
- An industrial scale food system is a large production that involves lots of processing and/or transportation to become food and get to you.
- A local food system means that the food comes from close to where we live and requires less energy to get to you.
- An origin is where something comes from.
- All food starts somewhere and goes through a process to get to you. That process is longer or shorter and simple or complex based on where its origin is and what kind of food system it is a product of.

Skills
- Planting food that is grown in our area contributes to a local food system.

Garden Vocabulary
Food System

Essential Questions
What is a food system?
How do we contribute to the food system?
Is our current food system working? Why or why not?

Assessment
Role Play Flip Chart/Graphic Organizers

Warm Up
Seed to Table (12 min)
Begin by showing the excerpt from the Agriculture + Industry video. When the film is over, ask students what steps went into getting the grapes grown in Chile vs the grapes grown locally.

Explain that these steps, as well as the many people and processes involved in each of the steps, make up what we call a "food system." *What else might be included in a food system? What can looking at food systems tell us about the story of food?*

Lesson
Explore (15 min)
Distribute copies of the Food System student pages and give students a few minutes to examine the two different systems.
Discuss:
How do these food systems compare to different methods of getting grapes in the video?
What is the same and different about these two systems?
Which steps does every food go through?
When we say a food is processed, what do we mean by that?
What people are involved in bringing food to your plate?
What roles do they play at each step in the two systems?

Tell the group that each of the food systems that they have designed have both benefits and costs (negative impacts) associated with them to the environment, people (farmer, neighbors, consumer) and the economy. Divide group into pairs and give each pair a role-play card that identifies a role in the food system. Ask them to read the card and identify what positive and/or negative impacts to the environment, people and the economy might be associated with their role in the food system.

Once the pairs have had a chance to decide on the impacts, ask them to read their card out loud and then report back the impacts. Write these up on a flip chart that is divided into quarters with the two food systems on the x-axis and positive and negative on the y-axis. Putting aside their roles, can they think of any other costs of benefits that aren't on the flipchart?

Garden Activity – Planting Seedlings (10-15 min)
Let students know that today they will be planting seedlings or seeds that will grow into *sprouts* or baby plants that we can *transplant* or move to the garden later. Demonstrate how to correctly plant the kind of seeds you will be growing this season.

Closing (5 min)
Ask students if they think our garden plants will contribute to a local or industrial food system. Why? Overall, do you think the food system we use currently is working? Why or why not?

DELTA FRESH FOODS
FARM TO SCHOOL

ELA Unit 9
Food Systems – Hunger and Food Security
Adapted from John Hopkins School of Public Health Food Systems Curriculum

This lesson discusses the very real issue of hunger and food insecurity in the United States. Students will explore how growing their own food can be one factor in solving the problem.

Standards:
RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
RI.5.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).
SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

Objectives:
SWBAT describe and discuss hunger and food insecurity
SWBAT compare food systems now to food systems in the past
SWBAT think critically about solutions to hunger and food insecurity

Materials
Food Security Illustration Handouts

Key Points:
Knowledge
- Hunger is feeling pain because of lack of food
- Food insecurity is when people are worried about not having enough food.

Skills
- If we are informed about the food system and how it affects us, we can make sure we do not get stuck in a place where we are food insecure.

Garden Vocabulary
Hunger
Food Insecurity
Weed

Essential Questions
What is hunger? How can we measure it?
Why is there hunger and food insecurity in the US?
How should hunger and food insecurity be addressed?
Who should be responsible for addressing hunger and food insecurity?

DELTA FRESH FOODS
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Warm Up
Hunger vs Food Insecurity (10 min)
Ask your students the questions:
What words or images come to mind when you think of hunger?
How would you define hunger?
How would you measure hunger?
How would you know if someone was at risk of experiencing hunger? Are there conditions that could serve as warning signs?
Possible responses include

- Worrying that food would run out before money is available to buy more.
- Skipping meals because there is not enough money for food
- Eating less than usual because there is not enough money for food
- Needing to rely on food banks, soup kitchens or other forms of emergency food assistance.

Lesson
Food Insecurity Illustration (10 min)
By the time someone experiences hunger, he or she may already have suffered considerable harm. For this reason, U.S. policy makers have expanded their attention from just hunger to a broader lens that examines food security – a concept that includes the conditions that lead to hunger. Food security is a measure of having consistent access to safe, adequate and nutritious food for an active and healthy life.

Food insecure households include those that are:

- Unable to afford balanced meals
- Worried their food will run out before they have money to buy more
- Forced to skip meals because they can't afford enough food
- In more severe cases – hungry because they can't afford enough food.

In this activity we will simulate how food security is measured in the United States by using actual government surveys.

For this activity, one student will tally the results of the survey to be interpreted at the end of the activity while 10 students act as the survey responders based on actual data from 2010. Distribute response cards to the 10 volunteers. Let them know that each person represents roughly 12 million U.S. households. Have these students stand in a line facing the same direction.

Read the survey questions one at a time to students. In response to each question, students will remain in place or take one or two steps forward to illustrate their responses. Students responses should resemble the following U.S. statistics from 2010
The food that we bought just didn't last and we didn't have money to get more – 15%
We couldn't afford to eat balanced meals – 15%
We cut the size of meals or had to skip meals because there wasn't enough money for food – 2%
I ate less than I felt I should because we didn't have enough money for food – 9%
I was hungry but didn't eat because we didn't have enough money for food – 4%

Once the survey is complete have the first student volunteer interpret survey results to see how many students would be considered to be food secure, have low food security or very low food security.

In the United States, close to 15 percent of households (almost 1 in 7 or 17 million households) experience food insecurity at some point during the year.

- Was there anything about these results that surprised you?
- Do the results seem like an accurate reflection of food security in the U.S. today? Why or Why Not?
- Do you feel the survey is a good tool for measuring household food security? Why or Why Not? Are there any questions you would add, remove or change?

Contributors (5-10 min)
What do you suspect are the causes of food insecurity?

Globally, food security depends on three key factors

- Food availability: There must be an adequate food supply. Regions with large populations but little farmland, for example, may be unable to produce enough food to feed its inhabitants
- Food stability: The supply must be stable. Some regions may have adequate food supplies during parts of the year but that falter during drought seasons
- Food access: People must have physical and economic access to food. In regions suffering from armed conflict, corruption, poverty or inequitable food distribution, a stable and abundant food supply holds little value if people are unable to physically reach it and afford it.

What do you think Mississippi's largest problem would be? How can we fix it?

Garden Activity (15-20 min)
Take students to the garden. Explain that by learning to grow our own food, we are giving ourselves a much better chance at always having food access. Today we will weed and do maintenance on our garden. Remind students about how to weed. What is important to do when weeding (get out the root). Why is it important to weed (so the water and nutrients go to the plant instead of the weed). Have a student demonstrate the correct way to pull weeds. If there are other maintenance responsibilities that need to be done, assign reliable students to complete those tasks.

Closing (5 min)
Ask: *Why is there hunger and food security around us? What is something we can do to prevent it? Who is responsible?*

ELA Standard – Garden Connections

Common Core Garden Cluster: Writing and Research

Learning in the garden takes place with a project based approach. Students will perform a task or participate in an activity that can then be journaled or formally written about later. Students can be asked to complete research projects based on plants or organisms they encounter in the garden, compare and contrast fresh vs processed foods, complete creative writing activities or poems based on plant life, and much more. Using the garden as inspiration provides students with a wealth of opportunities to display their knowledge in writing.

Students will be provided ample opportunities to share their findings or opinions based on garden tasks and products with others either formally or informally in order to improve public speaking and presentation skills.

Common Core Standard	In Practice	Aligned Activities
RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently. W.5.6 With some guidance and	**Research Projects** Common Core is largely based on exploratory or broad-based knowledge that is then applied to specific subjects. Offering students the opportunity to explore subjects that peak their interest will give them ownership in their learning and provide the much needed problem solving and critical thinking skills that are emphasized in the practice of Common Core. Research projects can be used as a general tool to follow up with any unit in the garden curriculum. This invests students in the information found and/or presented and gives them an opportunity to teach their peers about something they are personally interested in. Following a classroom lesson on information gathering, quotation and a garden activity, students can be asked to do research on a favorite garden plant or a gardening process in order to supplement information gained from the hands-on activity they experienced. Students can then use this research to write opinion or informative pieces, citing the author to support their claims. To create a more meaningful experience for students, research projects should only be done after the hands-on garden activity has been completed. This practice gives students a foundation to base their project on and provides them with first-hand experiences to	U3ELA1 Nutrition – Research Project U3ELA2 Nutrition – Commercial Spot U5 Food Systems – An Introduction U6ELA2 – Garden Theatre

support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.	include in their final paper or presentation. Books on gardening and plants as well as a lesson on internet research and/or specific, reliable websites that students can use, should be provided to students. Research Project Question Ideas: *Why is local food more beneficial to individuals and communities?* *What happens to plants in the winter?* *Why would farmers/gardeners use compost in their garden?* *Are bugs good or bad in the garden?* *What's happening to all the honey bees?* *Why do some people prefer organic? What does organic mean?* *What chemicals are in your food?* *What do we feed animals?* *Where are different foods grown around the world?*	
W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.		
W.5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.		
SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
SL.5.4 Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
SL.5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.		

W.5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.	**Garden Journals** Garden journals provide students the opportunity to keep track of all of their observations in the garden. They can be structured or used as a creative writing tool. They should be used consistently and in line with the lessons happening in the garden. When students write routinely, they are able to find their voice and develop comfort and confidence in writing. *According to teacher evaluations, journaling is consistently their favorite activity in the garden. It strengthens writing and observation skills, and one can't help but be impressed by the progress a student will make over the course of a school year. Journals can be as simple as several folded sheets of paper stapled together, or can be inexpensive notebooks purchased at a school supply store…Every student who comes to the garden should have their own journal that travels to and from the garden with them.* (Bucklin-Sporer and Pringle)	U1W1 Introduction to the Garden and Garden Journals All lessons should be followed up with a journal entry
W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.	**Nutrition Commercial Project** Students will choose their favorite garden vegetable based on taste and interest. They will then look up nutrition facts about it and create a 60 second commercial script convincing people to plant and eat their chosen vegetable.	U3ELA1 Nutrition – Research Project U3ELA2 Nutrition – Commercial Spot
W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	**Journal Entries or Research Papers** Any journal entries can be considered a fulfillment of this standard. In addition, students can be assigned research projects that culminate in the production of a paper designed to inform the reader of various garden-related topics.	Introduction to the Garden and Garden Journals U5ELA1 – Hunger/Food Security
W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	**Short Stories and Poetry** Narrative writing can be encouraged through lessons on poetry and short stories based on garden experiences or processes. Students will be observing the process of plant growth and the plant life cycle. They can be asked to journal about their experiences each week to document the process. Students can	U2ELA1 Plant Growth – Harvest Your Words U2ELA2 Plant Growth – Writing Garden Poetry

W.5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.)	then write poetry or short stories inspired by their journal entries and previous knowledge. This can be realistic or fanciful in nature and should include descriptive details and figurative language.	U6ELA1 – Storytelling U6ELA2 – Garden Theatre
L.5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.		

Common Core Garden Cluster: Demonstrate a Command of the Conventions of Standard English

Once students have learned proper writing skills, they can apply this knowledge and be held accountable for it through their garden-based writing samples.

Common Core Standard	In Practice	Aligned Activities
L.5.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	**All Writing Activities** Once students have been introduced to various grammar and usage practices in their classrooms, they can be held accountable for those skills in their garden writing. This can include their weekly garden journals or any formal writing students are asked to complete. This practice allows students a context for which they are learning the conventions of standard English.	All lessons
L.5.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.		
L.5.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.		
L.5.6 Acquire and use accurately grade-appropriate general academic and domain-specific		

words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).		

Common Core Garden Cluster: Vocabulary

The garden is a perfect place to explore vocabulary as students can use context clues or language links and previous knowledge to make suppositions about word meanings in addition to teacher introduced garden vocabulary. Students can then inquire further through research and the use of reference texts to locate unknown word meanings.

Common Core Standard	In Practice	Aligned Activities
RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words. RI.5.4 Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*. L.5.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	**Vocabulary** Exploring vocabulary used in gardening will expand students' knowledge of domain-specific words and phrases. It also creates relevance for vocabulary that is not seen in rote memorization methods. Students can be asked to explore garden-themed words in a variety of ways including: • Using context clues to determine word meanings • Matching picture based cards to vocabulary word cards • Repetition in garden activities • Garden vocabulary groups	U1W1 Introduction to the Garden and Garden Journals U2 Plant Growth – An Introduction U3 Nutrition – An Introduction U4 Soil – An Introduction U5 Food Systems – An Introduction U6 Ecosystems and Energy – An Introduction

Common Core Garden Cluster: Reading Informational Texts

Students proficient at reading in 5th grade should be familiar and comfortable working with a range of texts, including non-fiction works. Students will be exposed to informational text as they research answers to both student and teacher-directed questions that stem from exploration in the garden.

Common Core Standard	In Practice	Aligned Activities

RF.5.4 Read with sufficient accuracy and fluency to support comprehension. RI.5.2 Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. RI.5.3 Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. RI.5.8 Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). RI.5.10 By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.	**Reading** Common Core puts an emphasis on reading and comprehension of non-fiction texts. The garden is a great way to get students invested in the subjects of fresh food, sustainability, nature, plant growth and more. Following lessons on different aspects of the garden, students can be asked to read non-fiction texts relating to associated subjects. After students have been exposed to the idea in action, they will be more likely to be interested in the non-fiction, accompanying text. In addition, students can get practice in non-traditional texts such as recipes or other informational texts that are often seen on standardized tests.	U2ELA1 Plant Growth - Harvest Your Words U4ELA2 Soil – Hot vs Vermicompost
RI.5.5 Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.	**Compost** Following a lesson on the process of composting students can be asked to read two texts that outline the composting process through hot and vermicomposting. They can then be asked to relate the two texts and their first-hand experience to see how they compare. Students would then discuss the cause/effect and chronology of the books vs what is actually happening in the compost bin.	U4ELA2 Soil – Hot vs Vermicompost

RI.5.6 Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.	**Locally vs Commercially Produced Foods** Students will compare a "farm to table" story of a locally vs commercially grown food system product , taking note of the materials, processes, and energy used to create the different foods.	U5 Food Systems – An Introduction

Common Core Garden Cluster: Collaborate in Discussion

A school garden provides the perfect opportunity for collaboration and discussion, as there is a communal need for cooperation. As students are asked to explore new ideas and practices, teachers can easily facilitate teamwork and deliberation. Once students are taught to use various discussion techniques and roles, they can be held accountable for and practice these skills every time they are in the garden.

Common Core Standard	In Practice	Aligned Activities
SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.	**Discussions** Discussion is easily incorporated into almost all garden activities. A school garden provides the perfect opportunity for collaboration and discussion, as there is a communal need for cooperation. As students are asked to explore new ideas and practices, teachers can easily facilitate teamwork and deliberation. Once students are taught to use various discussion techniques and roles, they can be held accountable for and practice these skills every time they are in the garden.	U4ELA1 Soil – Dirt Made My Lunch U4ELA2 Soil – Hot vs Vermicompost U6ELA1 Ecosystems and Energy - Storytelling
SL.5.3 Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.		
SL.5.6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 here for specific expectations.)		

Bucklin-Sporer, Arden and Rachel Kathleen Pringle. *How to Grow a School Garden: A Complete Guide for Parents and Teachers.* Timber Press, Inc, 2010. Print.