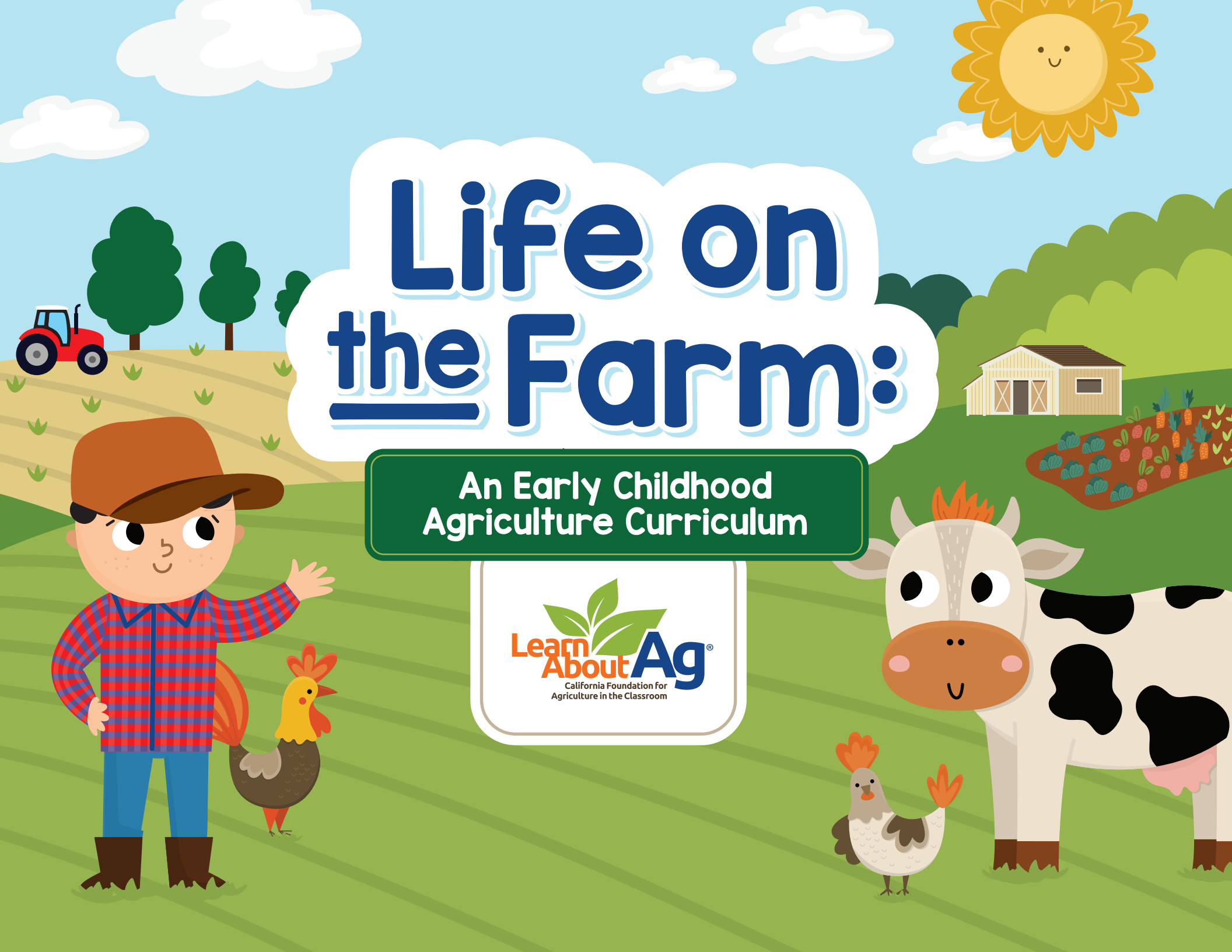


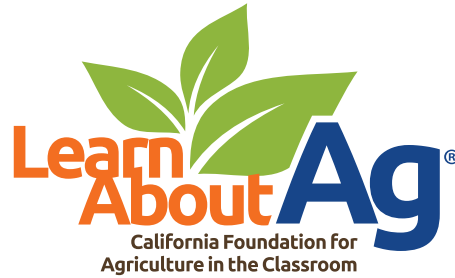
Life on the Farm:

An Early Childhood
Agriculture Curriculum



Life on the Farm Unit Overview

	Circle Time	Literacy	Math	Science/SS/Art
Day 1: All Kinds of Farms <i>What are some different types of farms?</i>	Book: <i>All Kinds of Farms</i> by Daniel Shepard Song: "On the Farm"	Crop Letter Match	Counting Crops Interactive Reader	Where Does My Burger Come From?
Day 2: Animals on the Farm <i>What do farm animals produce?</i>	Book: <i>National Geographic Kids: Farm Animals</i> by Joanne Mattern Game: Animal Product Match	Playdough Stamp Mats	Feeding Time Cooperative Game	Cowhide Art
Day 3: Crops on the Farm <i>How do different crops grow?</i>	Book: <i>Apples</i> by Gail Gibbons Anchor Chart: Crops Grow	Harvest Time! Three-Step Sequencing	Farm Stories	Desktop Crop
Day 4: Machines on the Farm <i>How do machines help on the farm?</i>	Book: <i>Tremendous Tractors</i> by Tony Mitton and Ant Parker Song: "Machines on the Farm"	Alphabet Plowing	Tractor Squeeze	Build a Tractor
Day 5: Thank You Farmers <i>How do farmers help our community?</i>	Book: <i>Right This Very Minute</i> by Lisl H. Detlefsen Watch: Life on the Farm Videos	Shared Writing: Thank You Farmer	California Agriculture Grab and Graph	Farm Match Scavenger Hunt



Vision:

An appreciation of agriculture by all.

Mission:

To increase awareness and understanding of agriculture among California's educators and students.

Authors:

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Acknowledgements

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Introduction

In an effort to simplify the idea of where food comes from, many early learners are implicitly taught that most farms look like the farms of the past: a single family living and working on a farm to provide for their day-to-day needs. In the past, the entire family would work on the farm and there was always work to be done. Typically, these farms would grow many different fruits and vegetables, with a big barn that housed a variety of livestock animals: a small brood of chickens, a horse, several cows and pigs, and a small herd of sheep. The family's food came from their own farm. Although some farms are still like that, today we get most of our food from much larger farms—still family owned—that specialize in growing one type of food. There are egg farms, dairy farms, almond farms, and apple farms. This lesson introduces students to modern farms that require specialized knowledge, skills, and machinery in order to survive in the global marketplace.

Unit Overview

Life on the Farm is designed to fit into a teacher's existing curriculum and allows the most flexibility for the educator: you may use the unit in whole or in part, as a basis for instruction or as a supplement. Each day focuses on a different theme related to life on a real farm: overview, livestock, fruits and vegetables, machines, and summary. This unit includes four multi-disciplinary learning experiences each day, following the daily theme. All activities are focused on specific learning goals that reinforce age-appropriate knowledge and skills.

Circle Time: Circle time includes a suggested book to read aloud and vocabulary development photo cards related to the book. In addition to literature connections, there is a whole group activity and discussion prompts for educators to engage the class.

Literacy Activity: Literacy activities include small group and whole group activities that focus on letter identification, vocabulary development, and shared and independent writing.

Math Activity: Math activities include small group, independent, and partner learning experiences that focus on identifying and writing numbers one through 10, one-to-one correspondence, basic subtraction and addition concepts, and number paths.

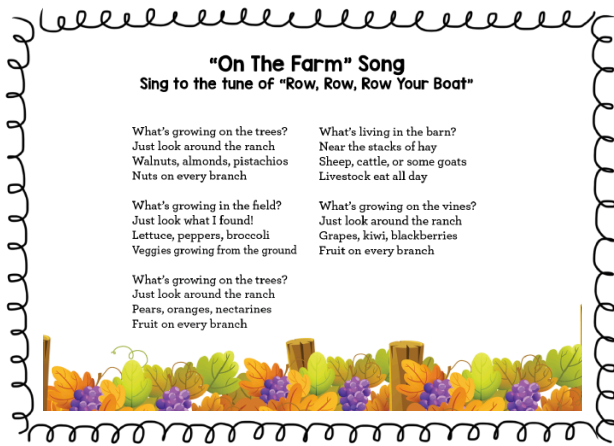
Science/Social Studies/Art: These activities focus on fine motor and gross motor skills that connect students to the daily theme.

Day 1: All Kinds of Farms

BIG Question: What are some different types of farms?

	Activity	Description	Materials	Goals/Skills
Circle Time	Book: <i>All Kinds of Farms</i> by Daniel Shepard Song: "On the Farm"	Read the book. Review vocabulary development photo cards. Learn a new song, "On the Farm."	<ul style="list-style-type: none"> • Book: <i>All Kinds of Farms</i> by Daniel Shepard • Vocabulary development photo cards (6) • Easel pad and markers 	<ul style="list-style-type: none"> • Introduce different types of farms • Learn new vocabulary
Literacy	Crop Letter Match	In a sensory bin filled with rice, match the crop cards to the beginning letter sounds.	<ul style="list-style-type: none"> • Sensory bin filled with rice • Alphabet magnets • Crop cards • Crop Letter Match worksheet • Crayons 	<ul style="list-style-type: none"> • Identify letters • Identify letter sounds • Fine motor practice • Vocabulary development
Math	Counting Crops Interactive Reader	Complete the interactive reader using various math skills.	<ul style="list-style-type: none"> • Counting Crops interactive reader • Counters (optional) • Crayons or markers 	<ul style="list-style-type: none"> • Identify and write numbers 1-10 • Write number words • Use a ten frame to visualize numbers • One-to-one correspondence
Social Studies	Where Does My Burger Come From?	Identify the different ingredients in a burger. Students connect the ingredients to agricultural commodities and the farmers and ranchers who produce them.	<ul style="list-style-type: none"> • Burger ingredients • Pocket chart • Build-a-Burger handout • Scissors • Glue sticks • Crayons or markers • Paper plates 	<ul style="list-style-type: none"> • Identify the origin of ingredients • Identify locally grown crops • Fine motor skills: cut with scissors, color with crayons, glue with glue sticks

Day 1: Circle Time



Skills

Introduce different kinds of farms
Learn new vocabulary

Materials

- Book: *All Kinds of Farms* by Daniels Shepard
- Vocabulary development photo cards (Prior to the lesson, cut and laminate the cards for future use)
- "On the Farm" song (Prior to the lesson, copy the song onto an easel pad)

Setting

Circle Time

Activity Instructions

1. Read the book, *All Kinds of Farms* by Daniel Shepard.
2. After reading, review the included vocabulary development photo cards.
 - a. Show the cards to the children and say the name of each photo on the card. Encourage the children to repeat the vocabulary words after you.
 - b. Ask the children to identify the object or action on the card and describe what it is or does.
 - c. Possible prompts:
 - Grain: Some farms grow grains. Grain is a tiny piece of food that grows on plants like wheat, rice, and corn. We use grains to make yummy things like bread, cereal, and pasta. *What grain do you like to eat?*
 - Fruit: Some farms grow fruit. Fruit is a food that grows on trees or plants. Some examples of fruit are apples, bananas, cherries, strawberries, and grapes. *What are some of your favorite fruits?*
 - Vegetables: Some farms grow vegetables. Vegetables are healthy foods that come from plants. Some vegetables grow above ground, like lettuce, tomatoes, and cucumbers, while others grow underground, like carrots, potatoes, and onions. *Can you think of any vegetables that are Green? Red? Purple?*
 - Harvest: Harvest is when farmers pick the food they grew in their fields. Fruits and vegetables like blueberries, peaches,

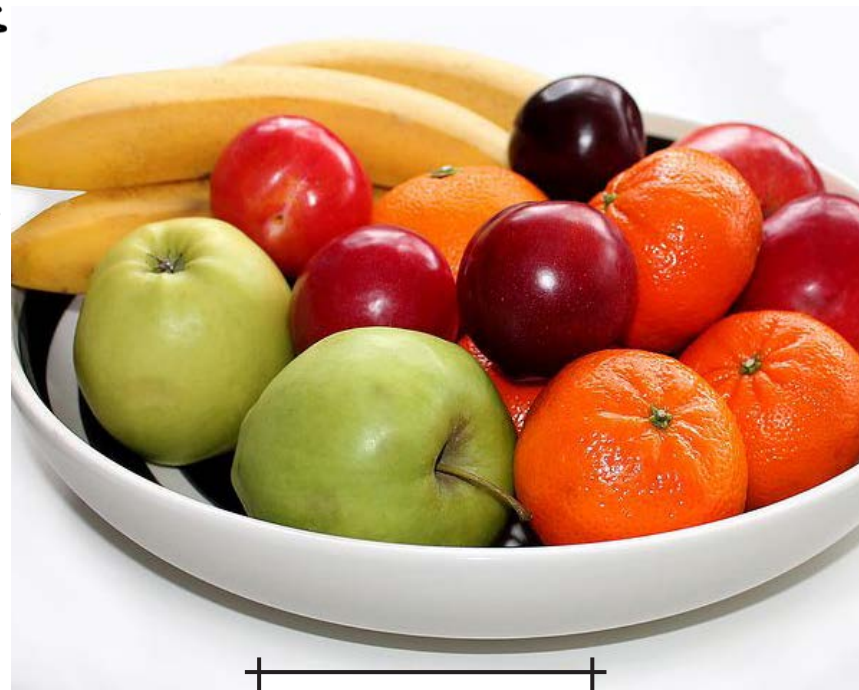
tomatoes, cucumbers, and corn are all harvested in the summer. Fruits and vegetables like apples, pumpkins, and carrots are harvested in the fall when they're ripe and ready to eat. *Have you ever harvested your own fruit or vegetable?*

- Livestock: This word wasn't in our book today, but we are going to be learning about animals on the farm this week, too. Livestock are animals that are raised on farms for food or other useful things. Some examples of livestock are cows, pigs, sheep, goats, and chickens. *Can you think of some food we get from livestock?*
 - Weather: Weather is what we call the different kinds of conditions outside, like sunny, rainy, cloudy, or snowy. For farmers, the weather is very important because it helps their plants grow. *Why do farmers like sunny weather? Why do farmers like rainy weather?*
3. Teach students the song, "On the Farm." Here are some tips for teaching preschoolers a new song:
 - a. Use visuals: Use pictures or props to help children understand the lyrics and the tune of the song. You can use hand gestures or actions to make the song more engaging.
 - b. Break it down: Teach the song in small parts, repeating each part until the children are familiar with it. Sing the song slowly and clearly so that the children can follow along.
 - c. Repeat, repeat, repeat: Encourage students to sing the song repeatedly until they have memorized the lyrics and the tune. Repetition is key in helping children learn and remember new songs.

Day 1: Vocabulary Development Photo Cards



Grain



Fruit

Day 1: Vocabulary Development Photo Cards



Vegetables



Harvest

Day 1: Vocabulary Development Photo Cards



“On The Farm” Song

Sing to the tune of “Row, Row, Row Your Boat”

What’s growing on the trees?
Just look around the ranch
Walnuts, almonds, pistachios
Nuts on every branch

What’s living in the barn?
Near the stacks of hay
Sheep, cattle, or some goats
Livestock eat all day

What’s growing in the field?
Just look what I found!
Lettuce, peppers, broccoli
Veggies growing from the ground

What’s growing on the vines?
Just look around the ranch
Grapes, kiwi, blackberries
Fruit on every branch

What’s growing on the trees?
Just look around the ranch
Pears, oranges, nectarines
Fruit on every branch



Day 1: Literacy

Crop Letter Match



Skills

Identify letters
Identify letter sounds
Fine motor practice
Vocabulary development

Materials

- Sensory bin filled with rice
- Alphabet magnets or foam letters
- Crop cards (Prior to the lesson, cut and laminate the cards for future use)
- Crop Letter Match worksheet, attached to clipboard (one per student)
- Crayons

Setting

Small group or free play

Activity Instructions

1. Introduce the activity. Tell students that California farmers and ranchers grow or raise more than 400 different commodities. Some commodities come from animals, like milk, wool, and meat. Some commodities are crops, like grains, fruits, and vegetables. Explain that students will look through the sensory bin to find matching crops and letters.
2. Show your students how to match the letters to the crop cards. For example, find the letter “A” and search for a crop that also starts with the letter “A” to make a match. Locate the “almond” crop card.
3. Once they find a match, students will color the corresponding letter on the Crop Letter Match worksheet.

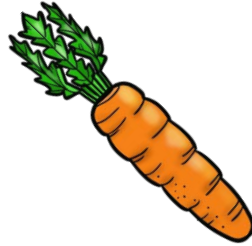
Crop Cards



Almonds



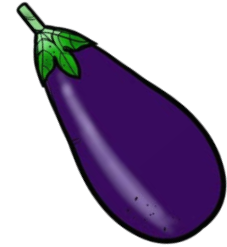
Broccoli



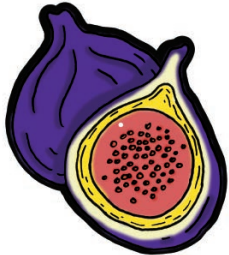
Carrots



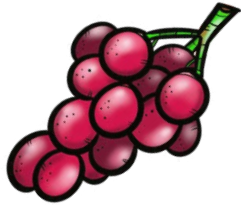
Dates



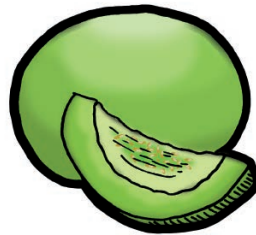
Eggplant



Figs



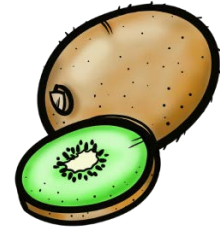
Grapes



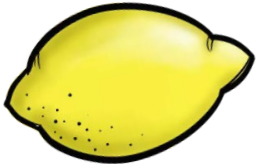
Honeydew Melon



Iceberg Lettuce



Kiwi



Lemons



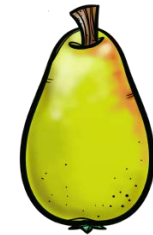
Mushrooms



Nectarine



Onions



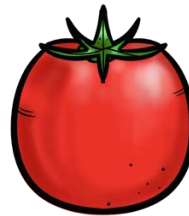
Pear



Radish



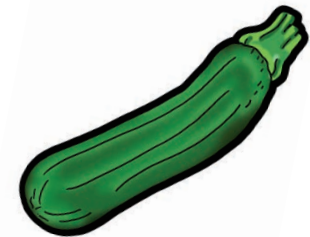
Strawberries



Tomatoes



Walnuts



Zucchini

Name: _____

Crop Letter Match

Color the letters you find and match to crops in the sensory bin.

A B C D E F

G H I J K L M

N O P Q R S T

U V W X Y Z

Day 1: Math

Counting Crops Interactive Reader



Skills

Identify and write numbers 1-10
Write number words
Use a ten frame to visualize numbers
One-to-one correspondence

Materials

- Counting Crops interactive reader
- Counters (optional)
- Crayons or markers

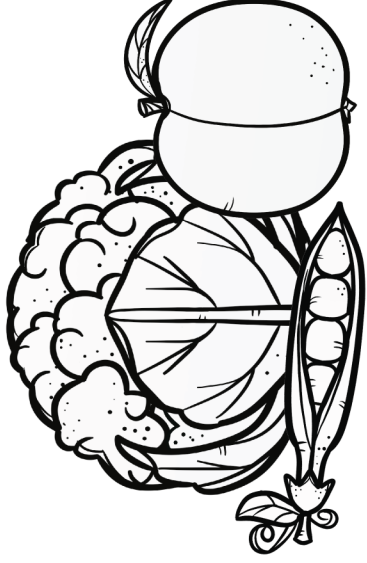
Setting

Small group or whole class

Activity Instructions

1. Start by reviewing (or introducing) what a ten frame is and what it's used for. You can say something like, "A ten frame is a tool that helps us count and understand numbers better."
2. Show students a physical ten frame or a picture of one. Explain that a ten frame has two rows with five spaces in each row, making 10 total spaces.
3. Have students practice counting with a ten frame. Give students a number and invite them to place the same number of counters on the ten frame. Then, count together to reinforce the concept.
4. Distribute the interactive reader and invite students to complete the booklet. Students may use counters to complete the ten frames, or draw a picture of each crop in the corresponding number of spaces.

COUNTING CROPS



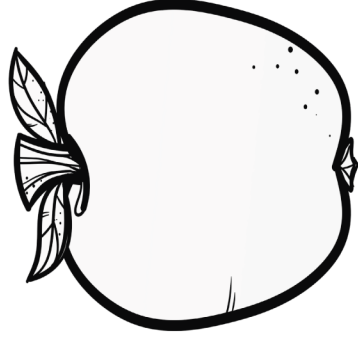
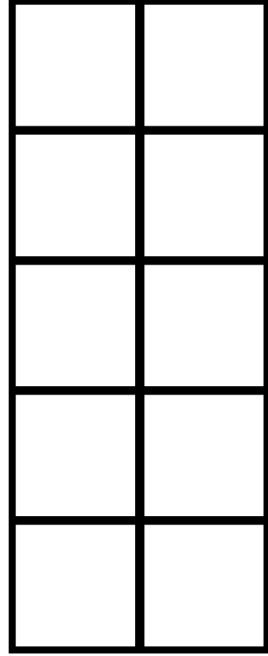
Name: _____



THE END

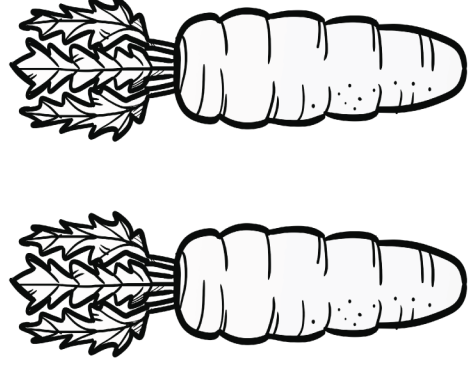
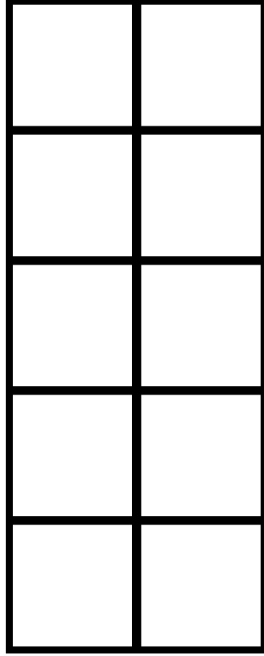
I SEE **one** apple.

.....



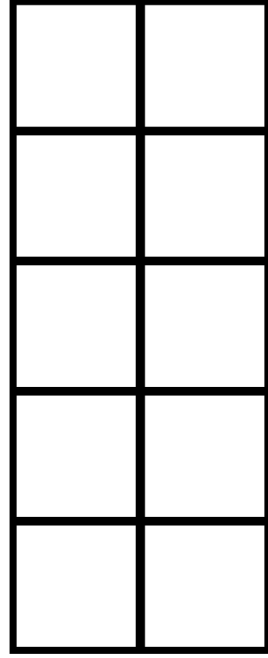
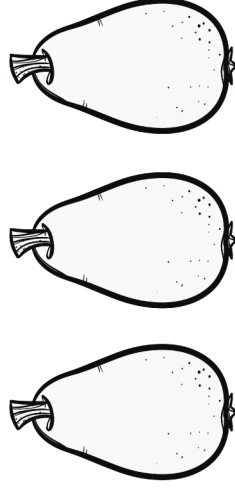
I SEE **two** carrots.

.....



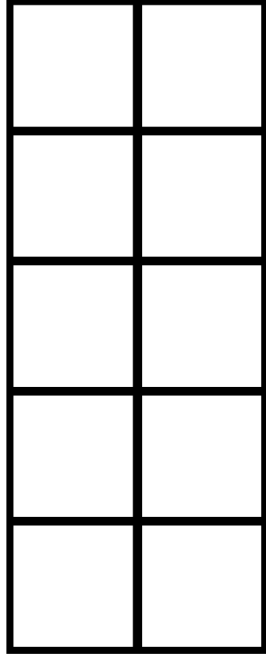
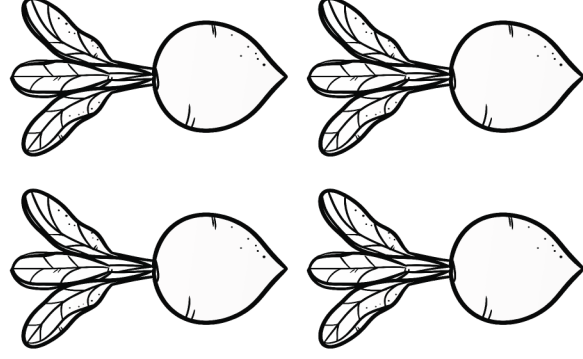
I SEE three pears.

3



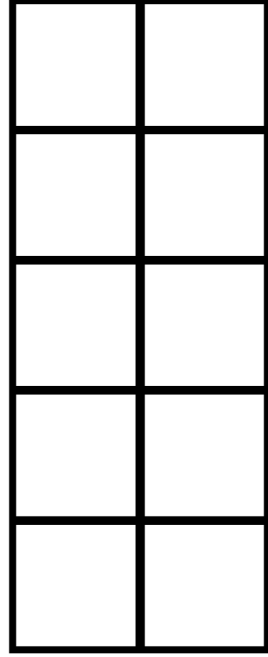
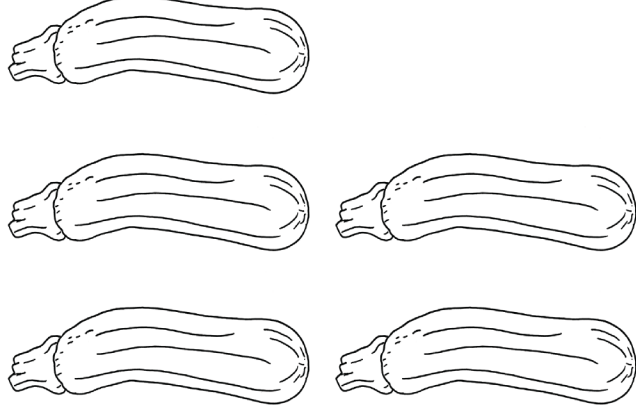
I SEE four radishes.

4



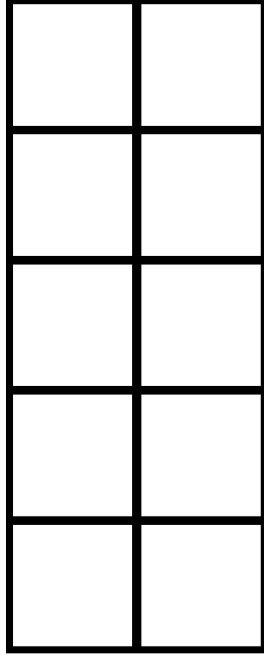
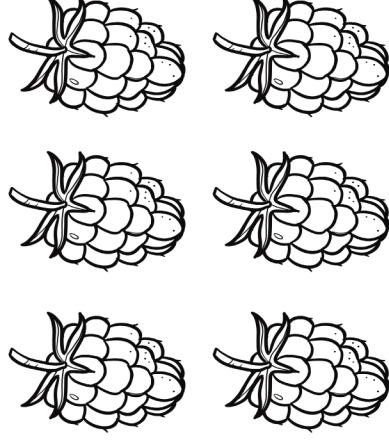
I SEE five zucchini.

5



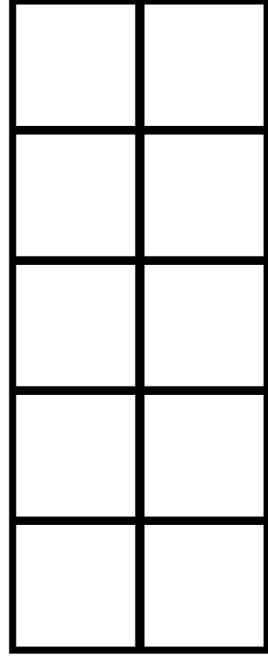
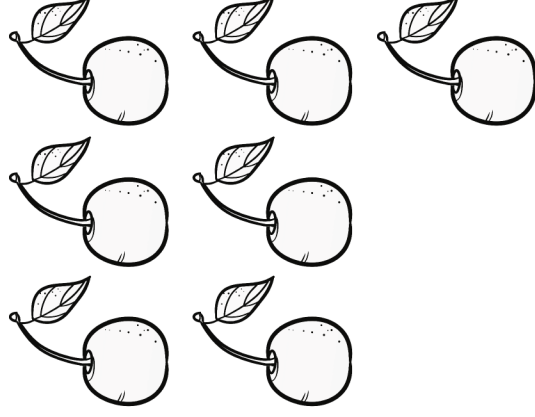
I SEE six raspberries.

6



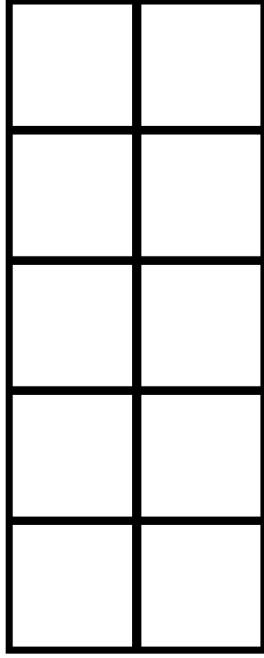
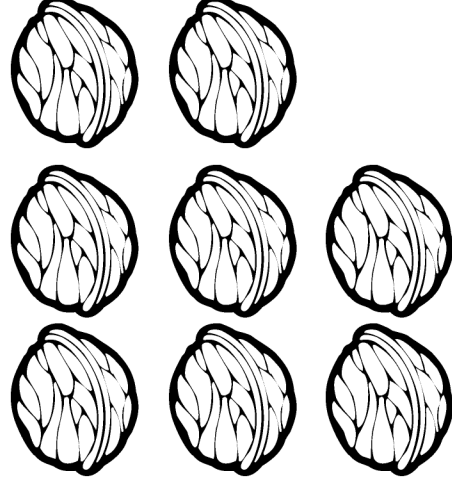
I SEE seven cherries.

7



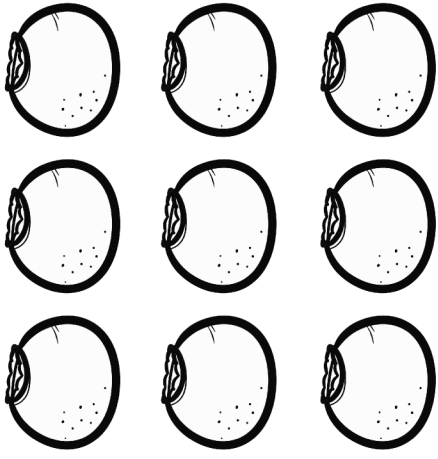
I SEE eight walnuts.

8



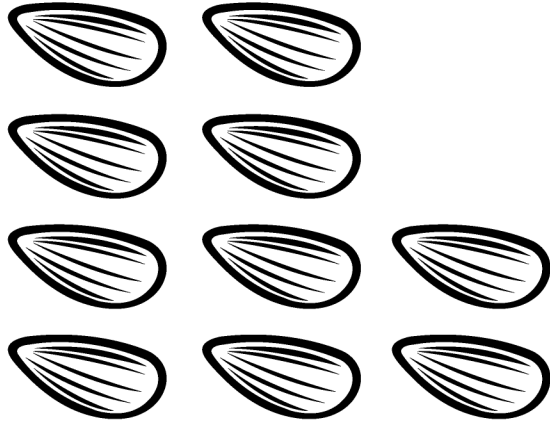
I SEE nine blueberries.

9



I SEE ten almonds.

10



Day 1: Social Studies

Where Does My Burger Come From?



Skills

Identify the origin of ingredients

Identify locally grown crops

Fine motor skills: cut with scissors, color with crayons, glue with glue sticks

Materials

- Burger ingredients (Prior to lesson, cut and laminate the ingredients for future use)
- Pocket Chart
- Build-a-Burger handout
- Scissors
- Glue sticks
- Crayons or markers
- Paper plates

Setting

Circle time

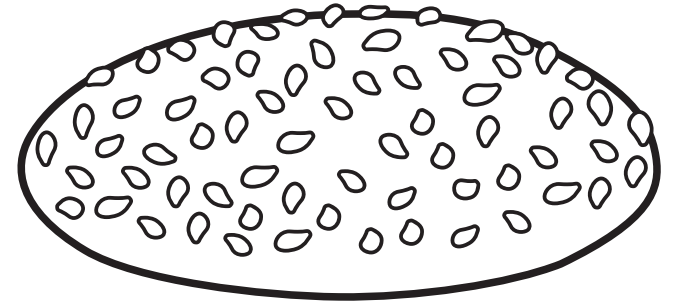
Activity Instructions

1. Ask students, “Have you ever taken a bite of a hamburger and wondered where all the ingredients came from?” Explain that in this activity, students will take a closer look at the ingredients on a burger and identify which ingredients are grown by farmers and ranchers in the community.
2. Invite students to brainstorm different ingredients used to make a burger. With each idea, place the corresponding ingredient on the pocket chart. Talk about where the ingredient comes from. You can say something like, “I love pickles on my burger. Give a thumbs up if you like pickles, too. What vegetables do we use to make pickles? (Cucumbers) Who grows cucumbers? (Farmers) Cucumbers are vegetables that are usually grown in a field.”
3. Continue with each burger ingredient, making connections to local agriculture when possible.
 - a. Bun: wheat
 - b. Patty: meat, usually beef
 - c. Ketchup: tomatoes
 - d. Mustard: mustard plant
 - e. Mayonnaise: oil (canola or soybean) and eggs
 - f. Cheese: milk, usually from cows
 - g. Pickles: cucumbers
 - h. Tomatoes and lettuce
4. Distribute the Build-a-Burger handout. Invite students to color the different ingredients, then cut them out and glue them onto a paper plate. If they start with the bottom ingredient first (most likely the bottom of the bun), the other ingredients will fit properly on top.

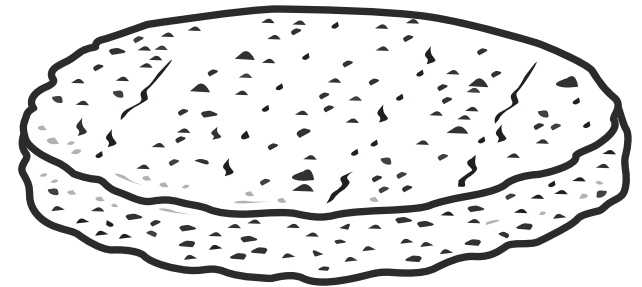
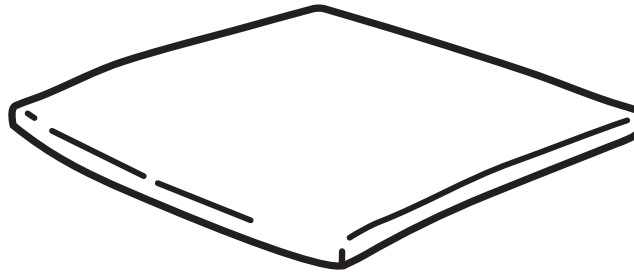
Build-a-Burger

Cut out the hamburger parts and put them together just the way you like...

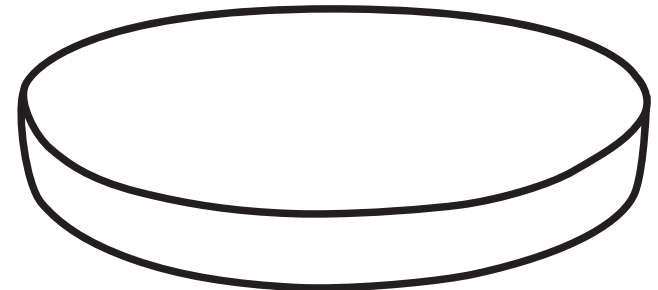
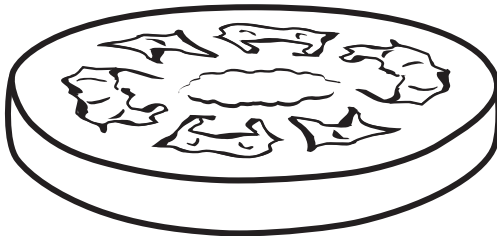
ketchup



mayonnaise



mustard



Day 2: Animals on the Farm

BIG Question: What do farm animals produce?

	Activity	Description	Materials	Goals/Skills
Circle Time	<p>Book: <i>National Geographic Kids: Farm Animals</i> by Joanne Mattern</p> <p>Game: Animal Product Match</p>	Read the book. Review vocabulary development photo cards. Play the game Animal Product Match.	<ul style="list-style-type: none"> • Book: <i>National Geographic Kids: Farm Animals</i> • Vocabulary development photo cards (6) • Animal Product Match cards • Pocket Chart 	<ul style="list-style-type: none"> • Introduce different farm animals • Connect animals to food and fiber • Learn new vocabulary
Literacy	Playdough Stamp Mats	Build animal words with playdough and letter stamps.	<ul style="list-style-type: none"> • Playdough stamp mats • Playdough • Letter stamps 	<ul style="list-style-type: none"> • Identify and differentiate letters • Fine motor practice • Vocabulary development
Math	Feeding Time Cooperative Game	Add feed to the barrel or remove feed from the barrel in this cooperative game.	<ul style="list-style-type: none"> • Large plastic cup • Feeding time barrel graphic • Counters • Feeding time cards 	<ul style="list-style-type: none"> • Recognize numbers 1-10 • Counting • Concepts of more and less
Art	Cowhide Art	Read the book <i>The Kindergarten Rancher</i> by Rachel Gabel. Make cowhide art.	<ul style="list-style-type: none"> • <i>The Kindergarten Rancher</i> by Rachel Gabel • White cardstock • Tempera paints in red, brown, black, tan, and gray • Droppers 	<ul style="list-style-type: none"> • Knowledge about animal products • Experimenting with color • Fine motor skills

Day 2: Circle Time



Skills

Introduce different farm animals
Connect animals to food and fiber
Learn new vocabulary

Materials

- Book: *National Geographic Kids: Farm Animals* by Joanne Mattern
- Vocabulary development photo cards (Prior to lesson, cut and laminate the cards for future use)
- Animal product match cards
- Pocket chart

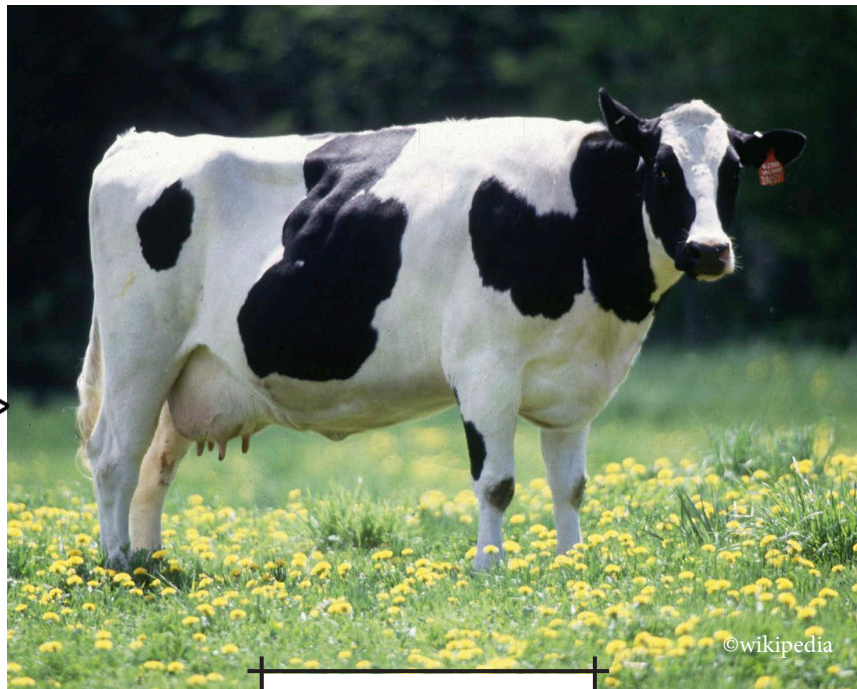
Setting

Circle time

Activity Instructions

1. Read the book, *National Geographic Kids: Farm Animals* by Joanne Mattern. This book includes three chapters. Depending on the attention span of your students, you may wish to only read the first chapter or read the entire book over the course of an entire day.
2. After reading, review the included vocabulary development photo cards.
 - a. Show the cards to the children and say the name of each photo on the card. Encourage the children to repeat the vocabulary words after you.
 - b. Ask the children to identify the object or action on the card and describe what it is or does.
 - c. Possible prompts:
 - Dairy: Dairy is a type of food that comes from milk, which is produced by animals like cows, goats, and sheep. Cheese, butter, and yogurt are made with milk. Dairy foods are really good for you because they help build strong bones and teeth. *What dairy products do you eat at home?*
 - Poultry: Poultry is a type of bird that farmers raise for food, like chickens, turkeys, and ducks. They provide us with many different types of food like chicken nuggets, turkey sandwiches, and eggs. *What poultry products do you eat at home?*
 - Sheep: Sheep are fluffy animals found on farms. We use their wool to make clothes, and their meat for food. On the farm, they live in a fenced grassy area called a pasture. *How do their woolly coats feel?*
 - Pigs: A pig is a farm animal that provides us with meat like bacon, ham, and sausage. We call the meat from pigs “pork.” *What pork products do you eat at home?*
3. Play the matching game, Animal Product Match.
 - a. Place the animal cards across the top of the pocket chart. Place the animal product cards at the bottom of the pocket chart, in no particular order. Before starting the game, review the animal cards, differentiating between the dairy cow (with udder) and the steer (used for beef).
 - b. Invite students, one at a time, to approach the pocket chart and select an animal product card from the bottom of the chart. Help them correctly match the product to one of the animal cards at the top of the chart. When they make a match, they may place the card under the corresponding animal card. Repeat with the remaining cards.
 - c. This might be a good time to introduce the concept of animal by-products. You can say something like, “The people who raise animals for meat often use all the parts of an animal to make sure that nothing goes to waste. For example, they might use the cow’s hide (skin) to make leather for shoes, belts, and purses. They might use the pig’s bristles (hairs) to make brushes. They might even use the bones of the animal to make glue, or the fat to make candles and soap. When ranchers use all the parts of an animal, they are being responsible and making sure that nothing goes to waste.”

Day 2: Vocabulary Development Photo Cards



Dairy



Poultry

Day 2: Vocabulary Development Photo Cards

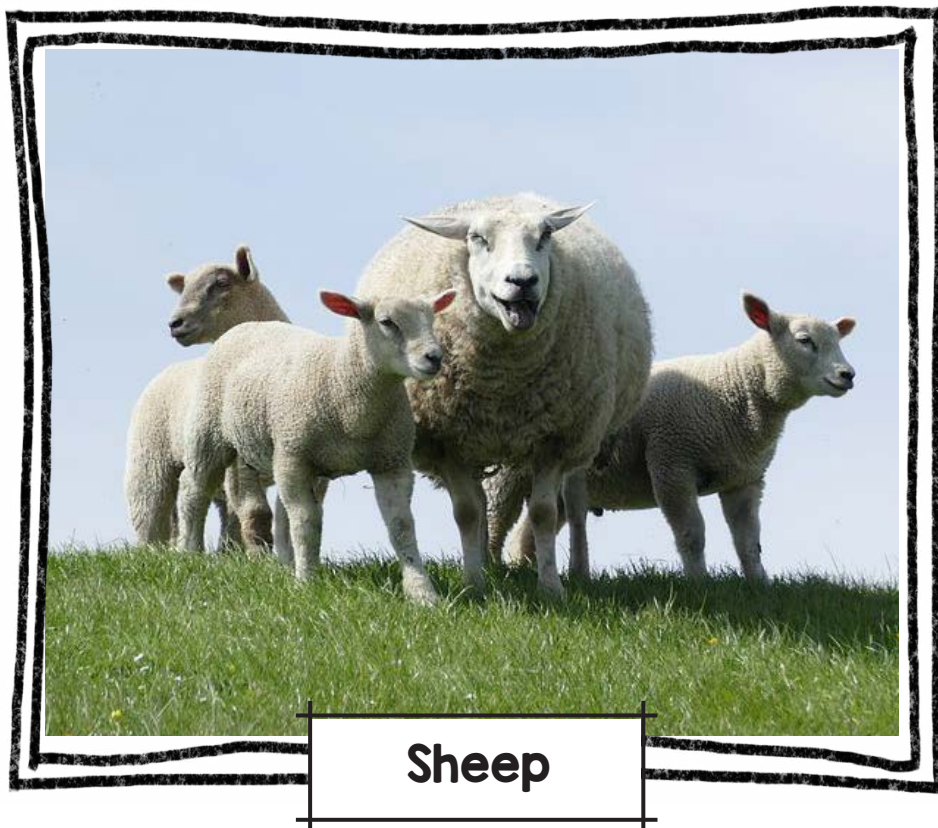


Crops



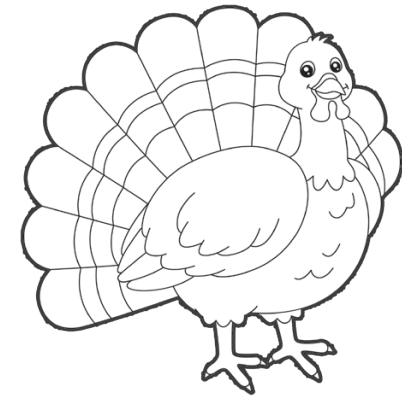
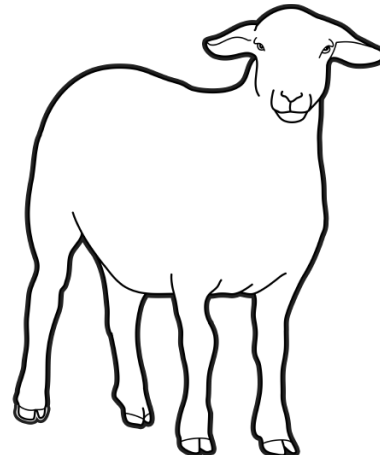
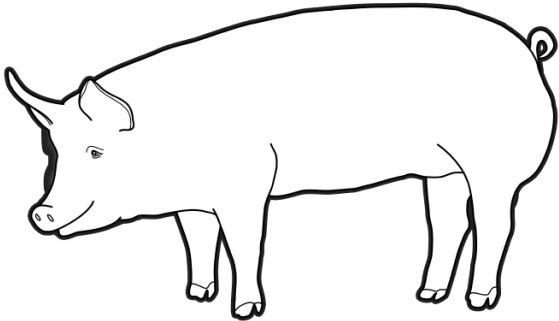
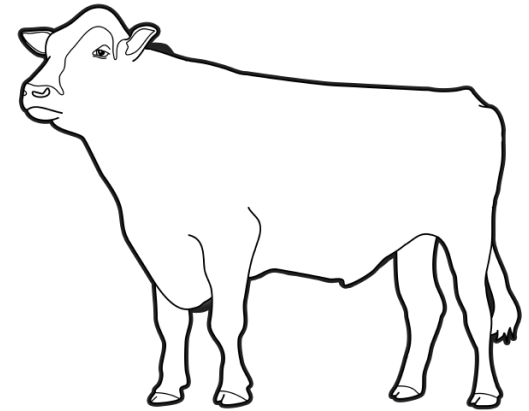
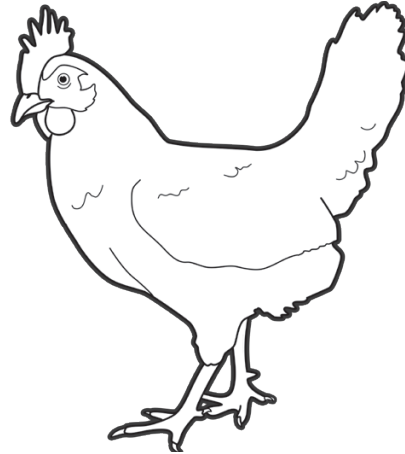
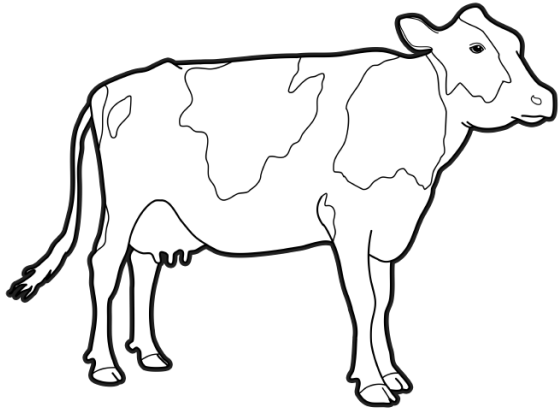
Pigs

Day 2: Vocabulary Development Photo Cards



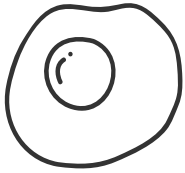
Animal Product Match

Animal Cards

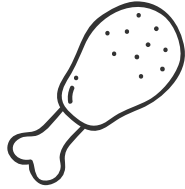


Animal Product Match

Animal Product Cards



Eggs



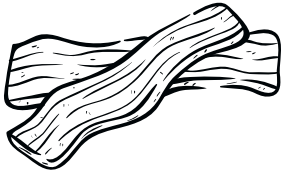
Drumstick



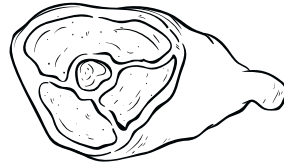
Milk



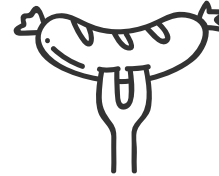
Yarn



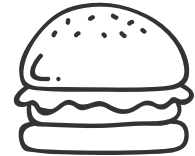
Bacon



Ham



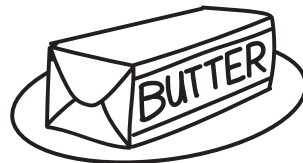
Sausage



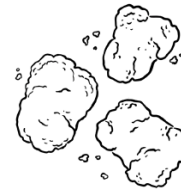
Hamburger



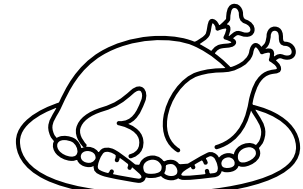
Yogurt



Butter



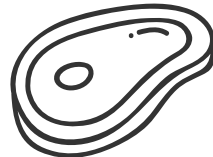
Chicken Nugget



Turkey



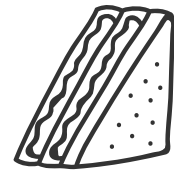
Socks



Steak



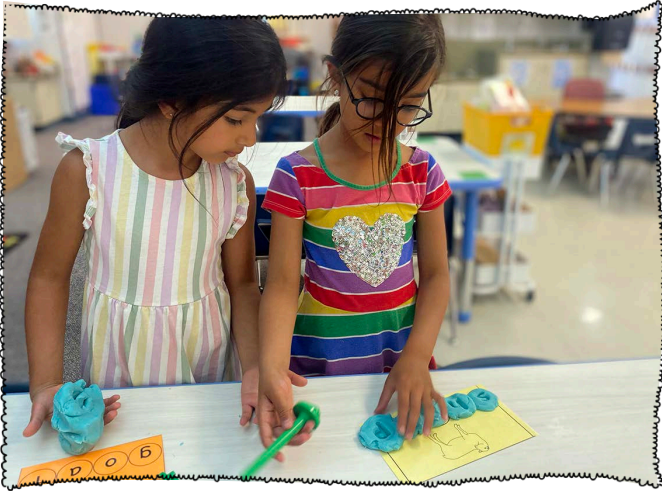
Mittens



Deli Sandwich

Day 2: Literacy

Playdough Stamp Mats



Skills

Identify and differentiate letters
Fine motor practice
Vocabulary development

Materials

- Playdough stamp mats (Prior to lesson, print on bright paper and laminate the mats for future use)
- Playdough
- Alphabet stamps

Setting

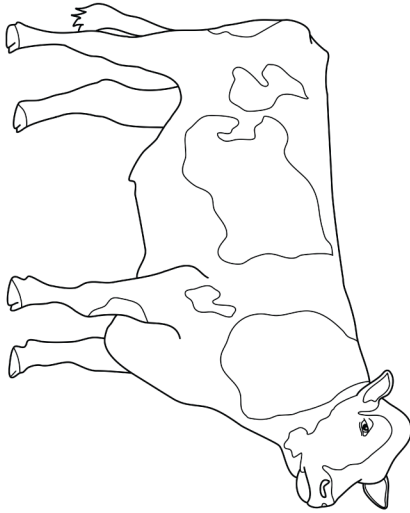
Small group

Activity Instructions

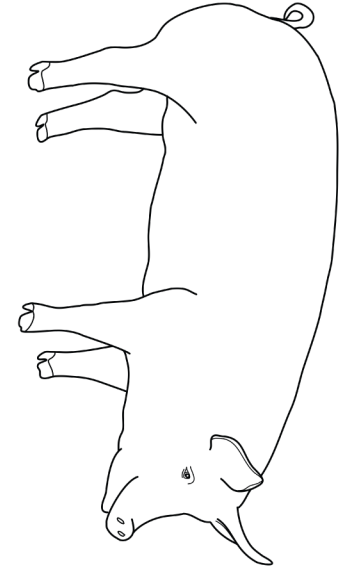
1. Introduce the activity. Students will use the playdough stamps to create farm animal words. There is a picture clue on each card and circles for each letter of the word.
2. Invite students to build an animal word.
 - a. Look at the first circle (the first letter of the word) and find the corresponding letter stamp. Next, roll playdough into a small ball and smoosh it into the circle. Then, stamp the letter into the playdough. Repeat this process until the entire word is complete. Practice saying the word.

Playdough Stamp Mats

cow



pig



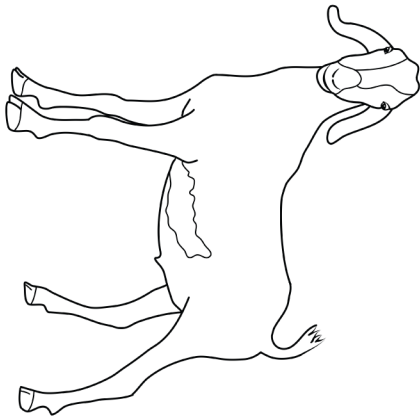
Playdough Stamp Mats

g

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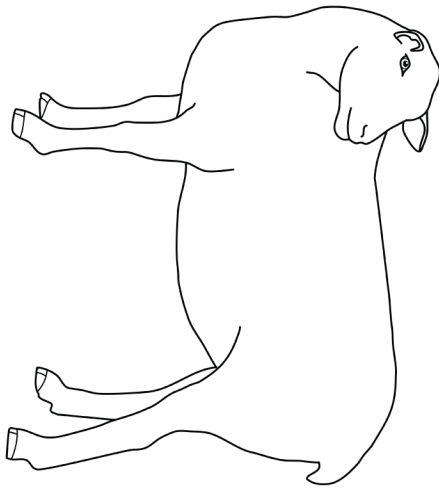
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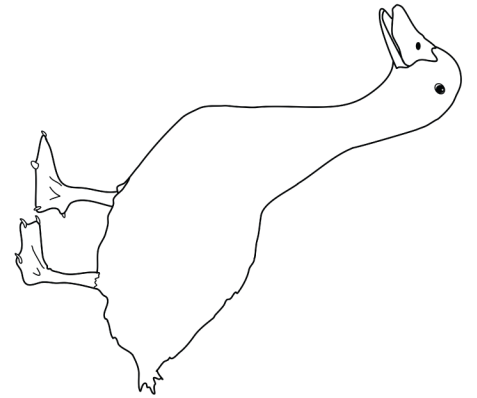


Playdough Stamp Mats

s h e e p



p u c k



Day 2: Math

Feeding Time Cooperative Game

Skills

Recognize numbers 1-10
Counting
Concepts of more and less

Materials

- Large plastic cup (one per group of 3-4 students)
- Feeding time barrel graphic (Prior to the lesson, print, cut and tape to each plastic cup)
- Counters (20 per group, use natural colors, such as brown, yellow, or green)
- Feeding time cards (one set per group)

Setting

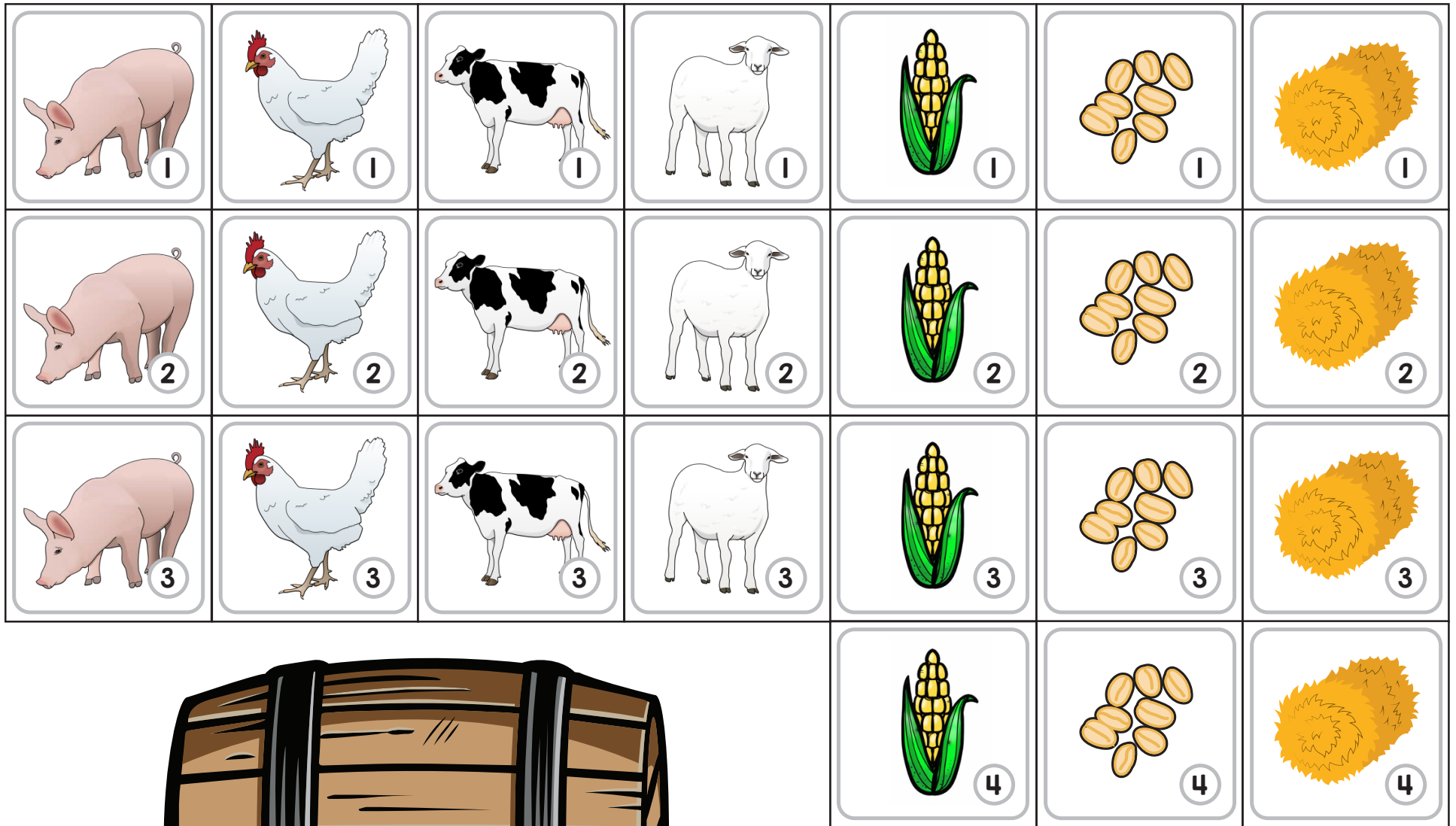
Small group



Activity Instructions

1. In this cooperative game, the players work together to achieve a common goal rather than trying to beat each other. This encourages teamwork, collaboration, and communication between the players.
2. Start by reviewing the different livestock animals that can be raised on a farm. Explain that some livestock farmers also grow crops that can be used to feed the animals they care for. For example, a dairy farmer may grow corn which is a nutritious food for cows. A pig farmer might grow turnips to feed their pigs.
3. Introduce students to the game, Feeding Time:
 - a. To set up the game, place the cup in the center of the playing area and put 10 counters inside the cup and 10 counters next to it.
 - b. Shuffle the deck of cards and place it face down near the cup.
 - c. The first player picks up a card from the deck.
 - d. If the player draws a crop card, it represents harvesting a crop and the player adds that number of counters to the barrel.
 - e. If the player draws an animal card, it represents feeding the animals and the player removes that number of counters from the barrel.
 - f. Play continues clockwise with each player taking a turn to draw a card and add or remove counters accordingly.
 - g. The goal of the game is to always have counters in the barrel. If the group runs out of counters, they can start over. The game ends when all the cards have been drawn or when the players decide to stop playing.
 - h. At the conclusion of the game, count the total number of counters in the cup. Have groups report how many counters remain in the cup and celebrate their success.

Feeding Time Cards



Day 2: Art

Cowhide Art



Skills

Knowledge about animal products
Experimenting with color
Fine motor skills

Materials

- *The Kindergarten Rancher* by Rachel Gabel (optional)
- White cardstock
- Tempera paints (in red, brown, black, tan, and gray in small containers)
- Droppers

Setting

Whole class or small group

Activity Instructions

1. After reading the book, *The Kindergarten Rancher* by Rachel Gabel, discuss how each breed of cattle is unique. They look different, and have different colored hair on their hide (skin). Review the different colors from the book.
2. The ranchers who raise cattle for meat often use all the parts of an animal to make sure that nothing goes to waste. For example, they might use the cow's hide (skin) to make leather jackets, belts, shoes, and even furniture. It has a smooth, durable texture and that makes it great for these kinds of products.
3. Introduce the cowhide art project.
 - a. Give each child a piece of white cardstock and a dropper.
 - b. Show the children how to use the dropper to pick up some paint from the bowls.
 - c. Invite the children to drop the paint onto their paper in any pattern they like. They can make dots, lines, or even draw shape like circles or squares.
 - d. Encourage the children to experiment with the dropper and the paint, and to make different patterns and shapes. They can also mix colors or try using different amounts of paint for different effects.
 - e. Optional: Once the paintings are dry, create a wall collage of cowhide-inspired artwork.

Day 3: Crops on the Farm

BIG Question: How do different crops grow?

	Activity	Description	Materials	Goals/Skills
Circle Time	Book: <i>Apples</i> by Gail Gibbons Anchor Chart: Crops Grow	Read the book. Review vocabulary development photo cards. Complete an anchor chart about how crops grow.	<ul style="list-style-type: none"> Book: <i>Apples</i> by Gail Gibbons Vocabulary development photo cards (6) Easel pad and markers 	<ul style="list-style-type: none"> Introduce different crops and how they grow Learn new vocabulary
Literacy	Harvest Time! Three-Step Sequencing	Sequence the events that occur during food production. Tell a story to review the sequence.	<ul style="list-style-type: none"> Sequencing cards 	<ul style="list-style-type: none"> Critical thinking Vocabulary development Cause and effect Oral language
Math	Farm Stories	Respond to teacher prompts by adding crops to and taking crops away from the story mat.	<ul style="list-style-type: none"> Farm story mat Counters Problem cards 	<ul style="list-style-type: none"> One-to-one correspondence Counting Concepts of more and less Listening
Science	Desktop Crop	Prepare a tiny garden and watch a crop grow on the desktop.	<ul style="list-style-type: none"> Clean lid Paper towel Mustard seeds Aluminum foil or cardstock to block light Water 	<ul style="list-style-type: none"> Follow directions Make scientific observations Fine motor skills

Day 3: Circle Time



Skills

Introduce different food crops and how they grow
Learn new vocabulary

Materials

- Book: *Apples* by Gail Gibbons
- Vocabulary development photo cards (Prior to the lesson, cut and laminate the cards for future use)
- Crops Grow anchor chart (Prior to the lesson, copy the framework onto the easel pad)
- Easel pad
- Markers

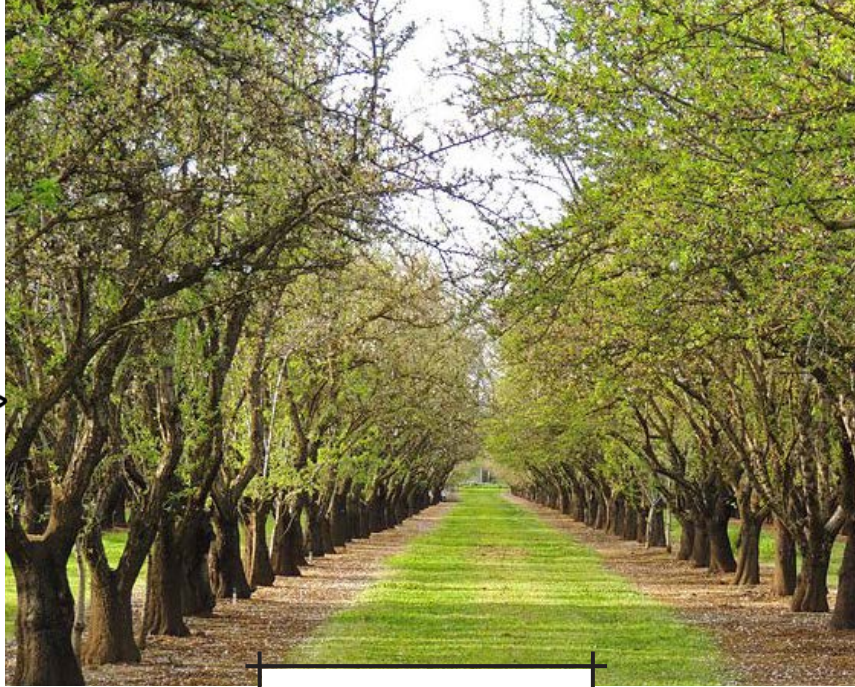
Setting

Circle time

Activity Instructions

1. Read the book, *Apples* by Gail Gibbons.
2. After reading, review the included vocabulary development photo cards.
 - a. Show the cards to the children and say the name of each photo on the card. Encourage the children to repeat the vocabulary words after you.
 - b. Ask the children to identify the object or action on the card and describe what it is or does.
 - c. Possible prompts:
 - Orchard: An orchard is a place where lots of trees stand in rows. It is where farmers plant and tend fruit and nut trees like apples, peaches, and almonds. *What are some other crops that grow in an orchard?*
 - Field: A field is a big open space of land where farmers plant seeds and grow crops like corn, wheat, and vegetables, and it's an important place where plants get the sun, rain, and nutrients they need to grow big and strong. *What are some other crops that grow in a field?*
 - Blossom: Blossoms are the small flowers that appear on fruit or nut trees. When trees have blossoms, bees visit the flowers to collect nectar, and while doing so, transfer pollen from one flower to the next, helping the tree produce fruit or nuts. *What sweet food do we get from bees?*
3. Complete the anchor chart.
 - a. Prior to the lesson, create a framework on an easel pad using the template provided on page 42. As you review the key points and interact with students, draw and write their ideas on the anchor chart. Hang the chart in a prominent location in the classroom where students can easily refer to it throughout the unit.

Day 3: Vocabulary Development Photo Cards



Orchard

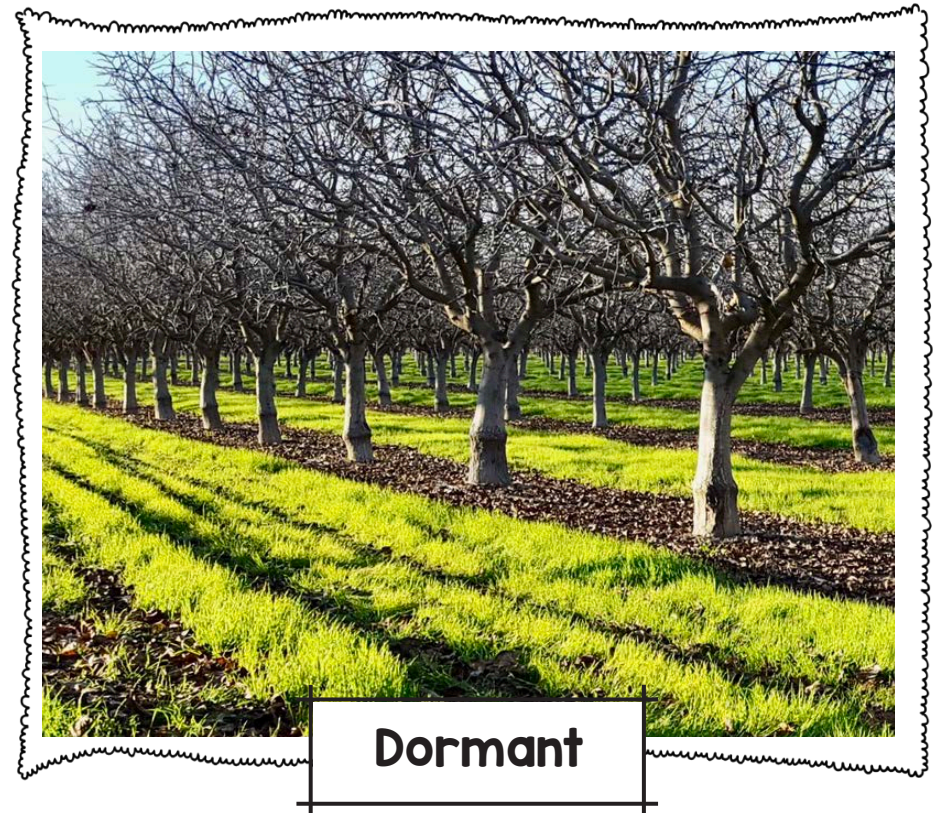


Field

Day 3: Vocabulary Development Photo Cards



Day 3: Vocabulary Development Photo Cards



Crops Grow Anchor Chart

CROPS GROW

IN THE
ORCHARD...

IN THE
FIELD...

Day 3: Literacy

Harvest Time! Three-Step Sequencing



Skills

Critical thinking
Vocabulary development
Cause and effect
Oral language development

Materials

- Sequencing cards
- Apple

Setting

Circle time or small group

Activity Instructions

1. First, introduce the concept of three-step sequencing. Tell students they are going to practice putting a series of events in the right order. Introduce the terms first, next, and last. Give some simple examples, such as getting ready for school or making a peanut butter and jelly sandwich.
2. Show students the apple. Invite them to come up with a three-step sequence for apple production. For example, first they are grown on a tree, next they are harvested, and last they are transported to a grocery store.
3. Use the cards to practice three-step sequencing for a variety of agricultural crops. Students can work independently, in pairs, or as a larger group. After they put the cards in the right order, ask them to orally tell the story on the cards.
4. Finish the lesson by inviting students to give an example of a three-step sequence they saw today or one they can think of on their own. Remind them that crops provide us with food and that farmers work hard to produce food for us to enjoy.

Harvest Time!

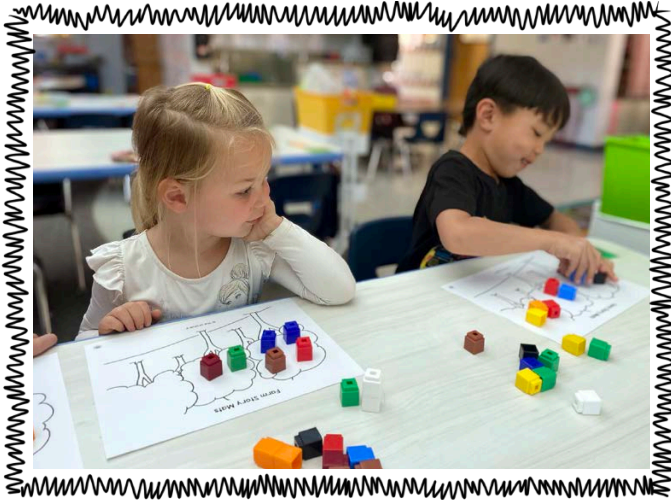


Harvest Time!



Day 3: Math

Farm Stories



Skills

One-to-one correspondence
Counting
Concepts of more and less
Cause-effect processing

Materials

- Farm story mats (orchard and field)
- Counters (unifix cubes, mini erasers, etc)
- Problem cards

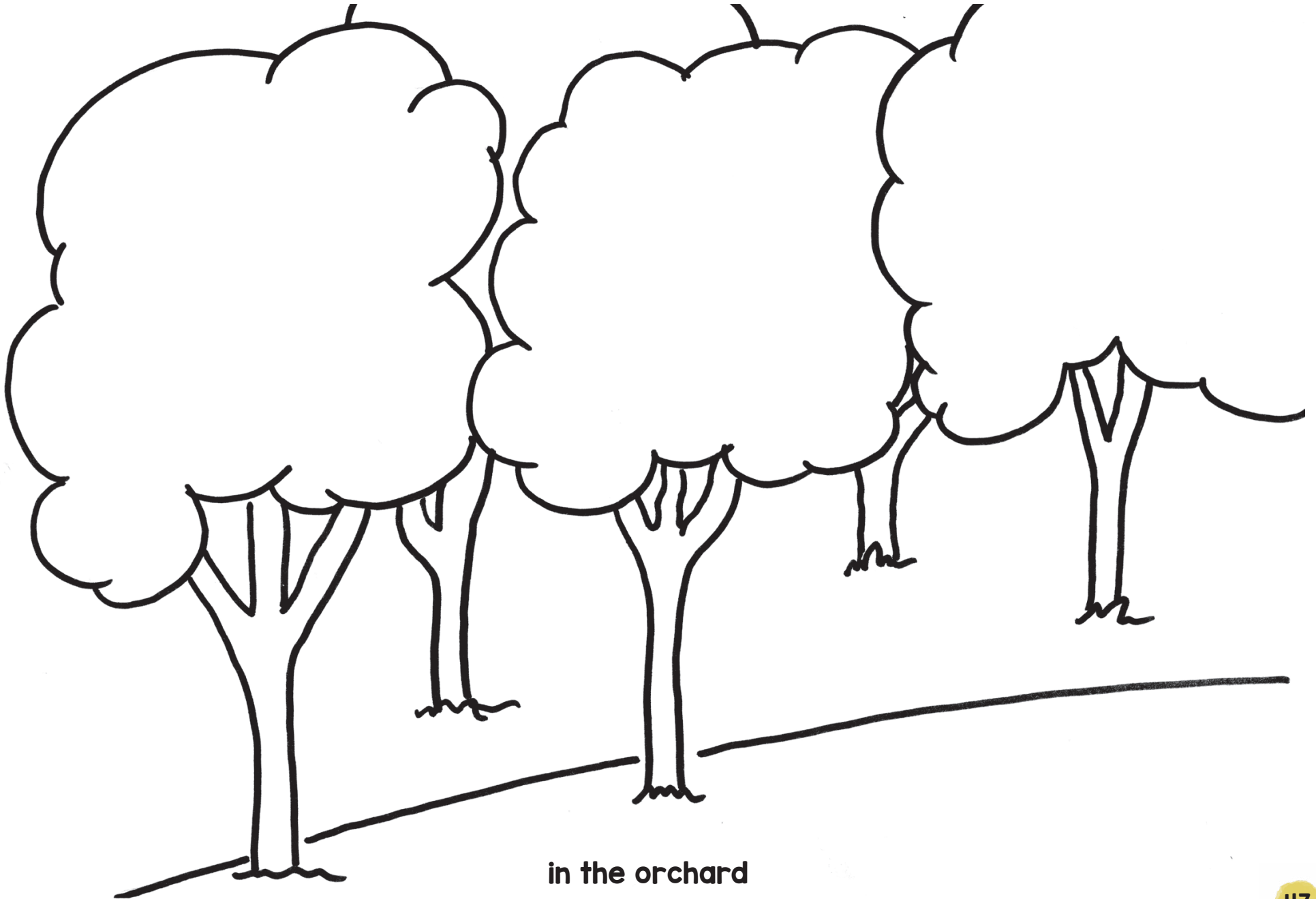
Setting

Small group or independent practice

Activity Instructions

1. Begin showing the students the farm story mats (orchard and field) and the counters. Explain that the mats represent different kinds of farms and the counters represent crops growing on the farms. Invite students to discuss the similarities and differences between the two scenes.
2. Give each student a turn to pick a counter from the pile and place it on the mat wherever they like. Encourage them to imagine what kind of crop they are planting, and to place the token in a spot that would be suitable for that crop to grow.
3. Once all the students have placed a token on the mat, explain that you will be giving instructions for them to add or remove counters from the mat. Encourage them to listen carefully and follow the instructions.
4. Use the problem cards to guide the students through the activity. Once students get the hang of it, encourage them to suggest their own story problems.

Farm Story Mats



in the orchard

Farm Story Mats



Farm Story Problem Cards

Note: The examples featured on the problem cards go up to ten. You may want to remind students that often a farmer will have thousands of plants growing in a single field or orchard and that these problems have been simplified for young learners.

<p>Orchard Mat: Addition</p> <p>There are three oranges growing on one tree, and five more growing on another tree.</p> <p><i>How many oranges are growing altogether?</i></p>	<p>Field Mat: Addition</p> <p>The farmer plants five tomato plants in the field. The next day she plants four more.</p> <p><i>How many total tomato plants are planted in the field?</i></p>	<p>Orchard Mat: Subtraction</p> <p>There are ten pears growing on a tree in the orchard. After a windy day, there are only three pears on the tree.</p> <p><i>How many pears fell off?</i></p>
<p>Orchard Mat: Addition</p> <p>There is one bee pollinating the orange blossom on the tree. Four more bees join him.</p> <p><i>How many bees are pollinating the blossoms on the tree?</i></p>	<p>Field Mat: Addition</p> <p>The farmer has six watermelons growing in the field. Three more watermelons are starting to grow.</p> <p><i>How many watermelons are growing in the field?</i></p>	<p>Field Mat: Subtraction</p> <p>There were ten strawberry plants growing in the field, but four were eaten by pests.</p> <p><i>How many strawberries are left in the field?</i></p>
<p>Orchard Mat: Subtraction</p> <p>A farmer had ten bags of almonds, but he used two bags to make almond butter.</p> <p><i>How many bags of almonds does the farmer have now?</i></p>	<p>Field Mat: Subtraction</p> <p>There were eight pumpkins in the patch, but three of them were harvested for jack-o-laterns.</p> <p><i>How many pumpkins are left in the patch?</i></p>	<p>Field Mat: Multi-Step Addition</p> <p>The farmer plants five pepper plants on the first day, five pepper plants on the second day, and eight pepper plants on the third day.</p> <p><i>How many pepper plants are growing in the field?</i></p>

Day 3: Science

Desktop Crop



Skills

Follow directions
Make scientific observations
Fine motor skills

Materials

- Clean lid (one per group)
- Paper towel (one per group)
- Mustard seeds
- Aluminum foil to block light
- Spray bottle with water

Setting

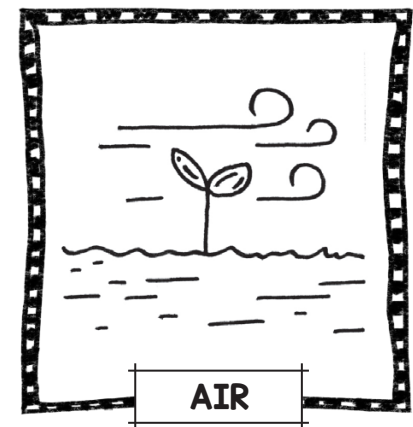
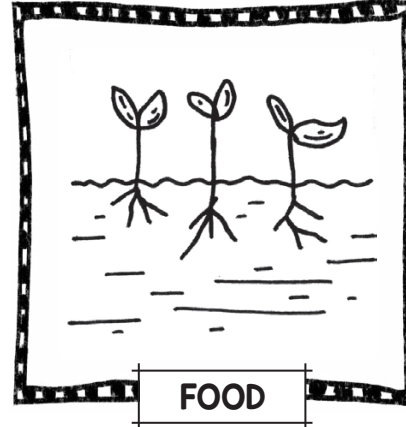
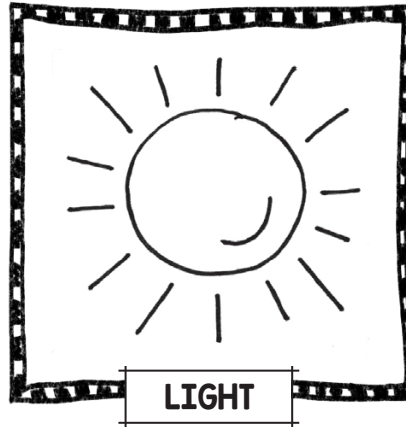
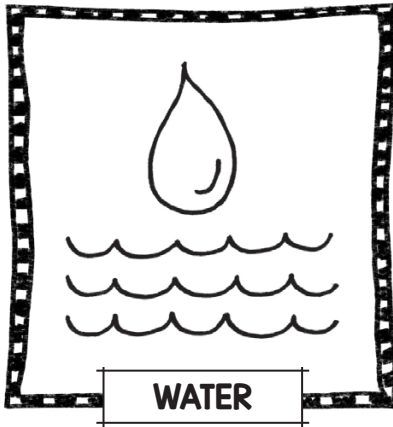
Whole class or small group

Activity Instructions

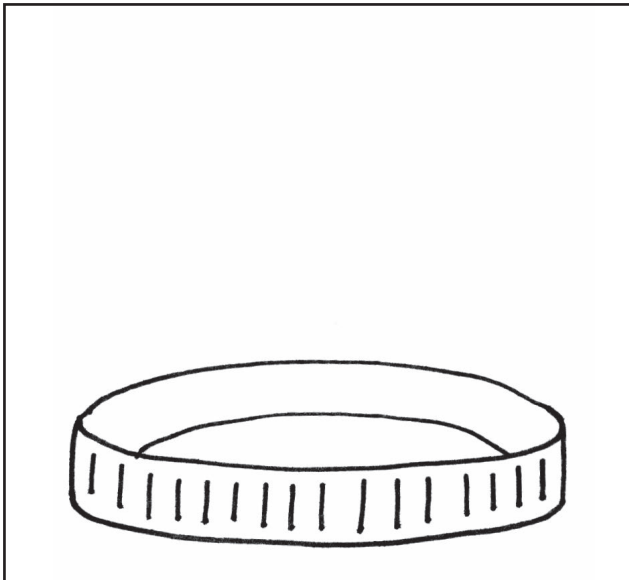
1. Start by telling students that farmers take care of plants so that they can grow big and healthy. Farmers take care of lots of plants, sometimes even thousands of plants, which we call a crop. The crop needs food, water, and light. Farmers work really hard to make sure the plants are healthy, and when the plants are ready, they harvest the crop. For example, farmers might grow corn as a crop to sell as food for people or animals. Or they might grow cotton as a crop to make into clothing.
2. Tell students that they will plant a desktop crop to see what plants need and how they grow from seeds.
 - a. Take a clean lid from a peanut butter jar or use a plastic soup-cup lid.
 - b. Fit the paper towel into the lid, covering any tiny holes.
 - c. Moisten the paper towel with a spray bottle filled with water. You don't want it too wet.
 - d. Sprinkle seeds on the paper towel.
 - e. Cover the lid with a thick piece of aluminum foil to block the light and allow seeds to germinate.
 - f. Check your garden every day until you see little shoots growing, then remove the cover. Once the seeds have sprouted, place them in a sunny location and water regularly.

Desktop Crop

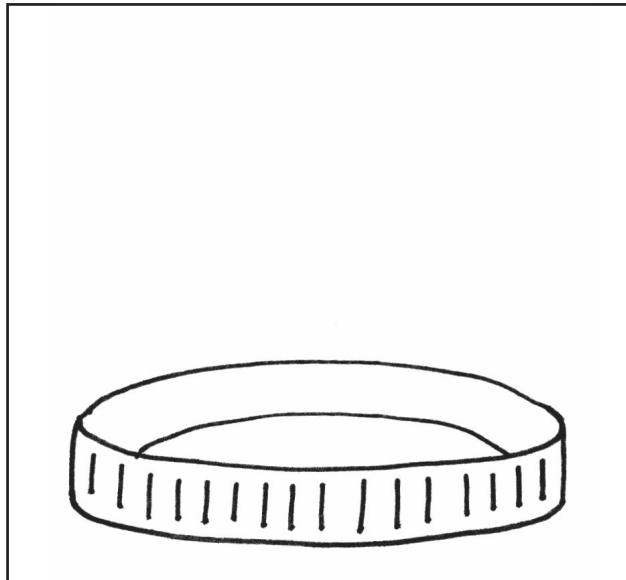
Plants need...



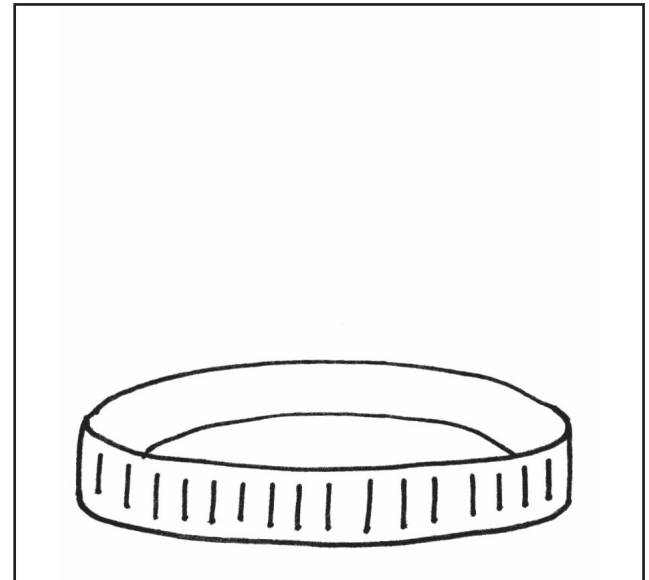
What I see...



Day 5



Day 10



Day 15

Day 4: Machines on the Farm

BIG Question: How do machines help on the farm?

	Activity	Description	Materials	Goals/Skills
Circle Time	<p>Book: <i>Tremendous Tractors</i> by Tony Mitton and Ant Parker</p> <p>Song: "Machines on the Farm"</p>	Read the book. Review vocabulary development photo cards. Learn a new song, "Machines on the Farm."	<ul style="list-style-type: none"> • Book: <i>Tremendous Tractors</i> by Tony Mitton and Ant Parker • Vocabulary development photo cards (6) • Easel pad and markers 	<ul style="list-style-type: none"> • Introduce different machines and what they do • Learn new vocabulary
Literacy	Alphabet Plowing	Use a tractor to write letters in a shallow tray filled with soil or sand.	<ul style="list-style-type: none"> • Alphabet plowing cards • Shallow tray filled with soil • Pencil • Small toy tractors 	<ul style="list-style-type: none"> • Identify letters • Practice writing letters • Fine motor practice
Math	Tractor Squeeze	Partners play a number guessing game using tractor props and a number line.	<ul style="list-style-type: none"> • Tractor props • Craft sticks • Number line 	<ul style="list-style-type: none"> • Identify numbers 1-10 • Concepts of more and less • Use a number line
Art	Build a Tractor	Make a tractor by cutting and pasting different tractor parts.	<ul style="list-style-type: none"> • Tractor templates printed on cardstock • Green, yellow, dark gray, and light blue cardstock • Scissors • Glue sticks 	<ul style="list-style-type: none"> • Identify parts of a tractor • Fine motor skills: cut with scissors, glue with glue sticks

Day 4: Circle Time

"Machines on the Farm" Song Sing to the tune of "The Farmer in the Dell"

Machines on the farm
Machines on the farm
Each machine has a special job
Machines on the farm

The plow breaks up the ground
The plow breaks up the ground
Makes the furrows, rich and brown
The plow breaks up the ground

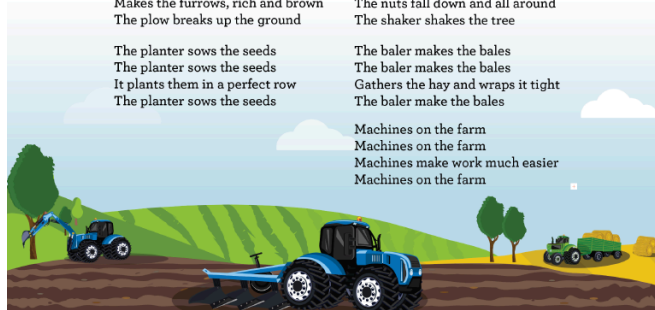
The planter sows the seeds
The planter sows the seeds
It plants them in a perfect row
The planter sows the seeds

The combine cuts the wheat
The combine cuts the wheat
It separates the grain to eat
The combine cuts the wheat

The shaker shakes the tree
The shaker shakes the tree
The nuts fall down and all around
The shaker shakes the tree

The baler makes the bales
The baler makes the bales
Gathers the hay and wraps it tight
The baler makes the bales

Machines on the farm
Machines on the farm
Machines make work much easier
Machines on the farm



Skills

Introduce different kinds of farms
Learn new vocabulary

Materials

- Book: *Tremendous Tractors* by Tony Mitton and Ant Parker
- Vocabulary development photo cards (Prior to the lesson, cut and laminate the cards for future use)
- "Machines on the Farm" song (Prior to the lesson, copy the song onto an easel pad)

Setting

Circle time

Activity Instructions

1. Read the book, *Tremendous Tractors* by Tony Mitton and Ant Parker. After reading, review the included vocabulary development photo cards.
 - a. Show the cards to the children and say the name of each photo on the card. Encourage the children to repeat the vocabulary words after you.
 - b. Ask the children to identify the object or action on the card and describe what it is or does.
 - c. Possible prompts:
 - Tire: The round rubber part on the tractor that helps it move and grip the ground. *What other vehicles have tires and how are they different from tractor tires?*
 - Plow: A farm tool that is pulled by a tractor and used to turn over soil and create furrows for planting seeds. *How does this make a farmer's job easier?*
 - Furrow: A long narrow trench that is made in the ground by a plow, which helps farmers plant seeds in neat rows. *What tool did farmers use to make furrows before the plow was invented? Why do they use a plow now?*
2. Teach students the song, "Machines on the Farm." Here are some tips for teaching preschoolers a new song:
 - a. Use visuals: Use pictures or props to help children understand the lyrics and the tune of the song. You can use hand gestures or actions to make the song more engaging.
 - b. Break it down: Teach the song in small parts, repeating each part until the children are familiar with it. Sing the song slowly and clearly so that the children can follow along.
 - c. Repeat, repeat, repeat: Encourage students to sing the song repeatedly until they have memorized the lyrics and the tune. Repetition is key in helping children learn and remember new songs.

Day 4: Vocabulary Development Photo Cards



Tire



Plow

Day 4: Vocabulary Development Photo Cards



Furrow



Hopper

Day 4: Vocabulary Development Photo Cards



Bale



Thresh

"Machines on the Farm" Song

Sing to the tune of "The Farmer in the Dell"

Machines on the farm
Machines on the farm
Each machine has a special job
Machines on the farm

The plow breaks up the ground
The plow breaks up the ground
Makes the furrows, rich and brown
The plow breaks up the ground

The planter sows the seeds
The planter sows the seeds
It plants them in a perfect row
The planter sows the seeds

The combine cuts the wheat
The combine cuts the wheat
It separates the grain to eat
The combine cuts the wheat

The shaker shakes the tree
The shaker shakes the tree
The nuts fall down and all around
The shaker shakes the tree

The baler makes the bales
The baler makes the bales
Gathers the hay and wraps it tight
The baler make the bales

Machines on the farm
Machines on the farm
Machines make work much easier
Machines on the farm



Day 4: Literacy

Alphabet Plowing



Skills

Identify letters
Practice writing letters
Fine motor practice

Materials

- Alphabet plowing cards
- Shallow tray filled with soil
- Pencil
- Small toy tractors

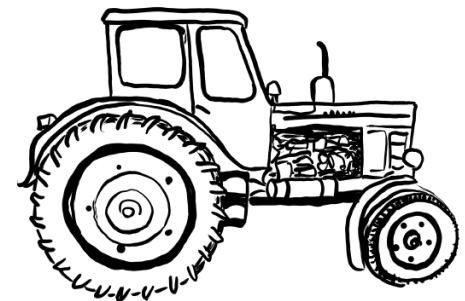
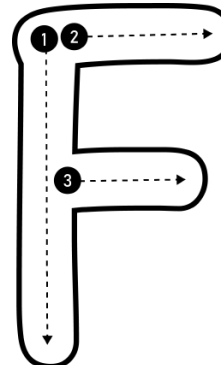
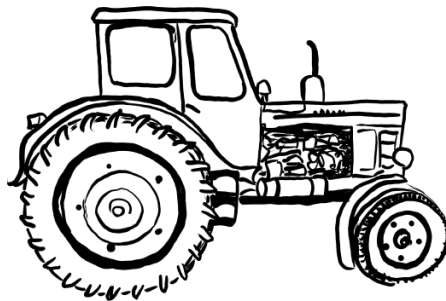
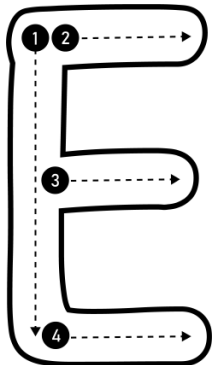
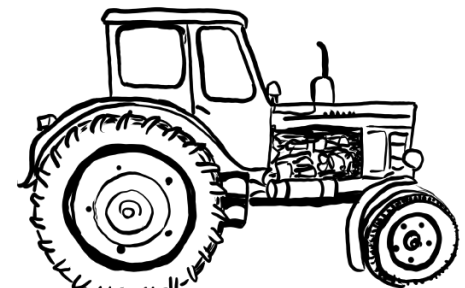
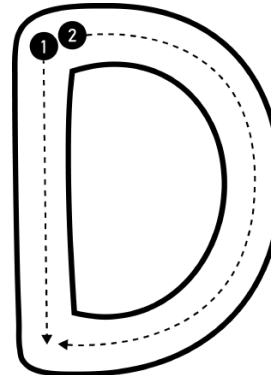
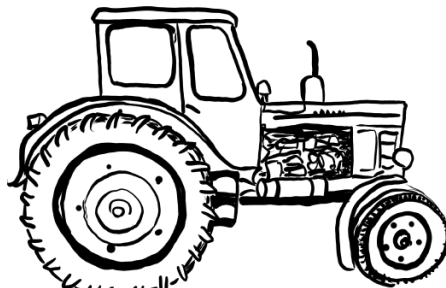
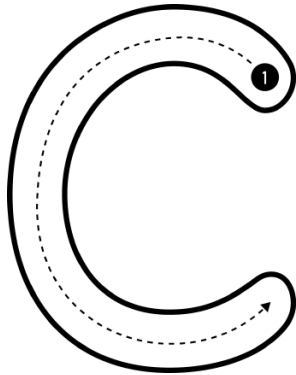
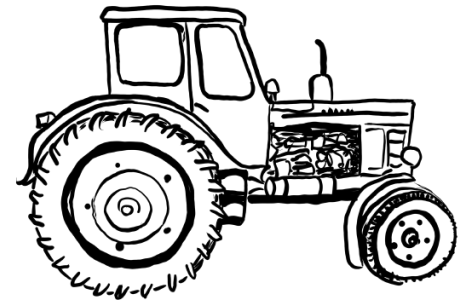
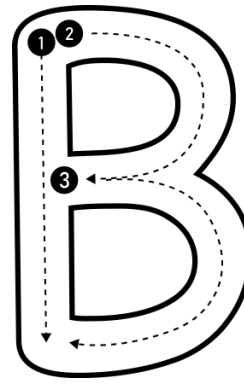
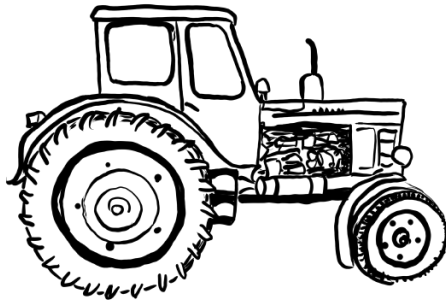
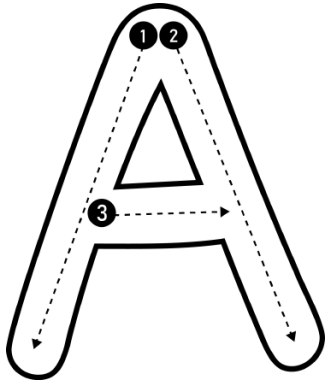
Setting

Small group or free play

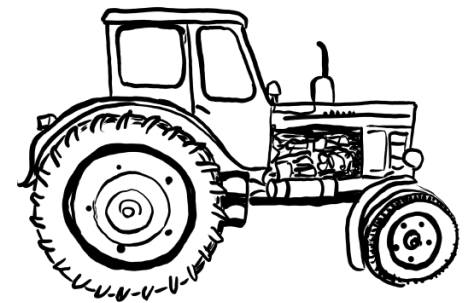
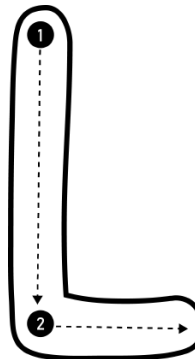
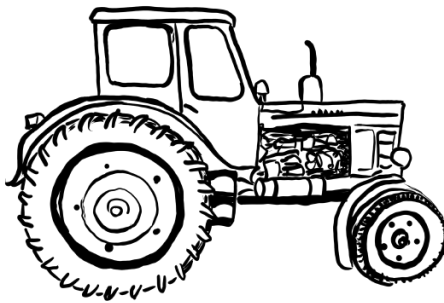
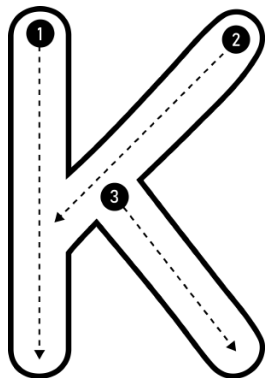
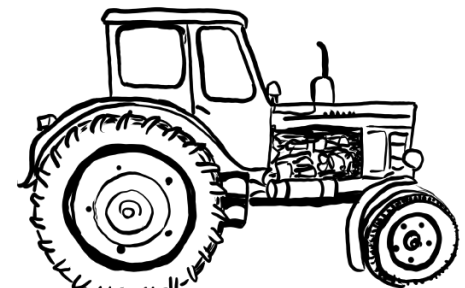
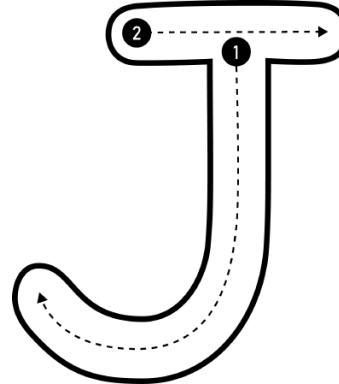
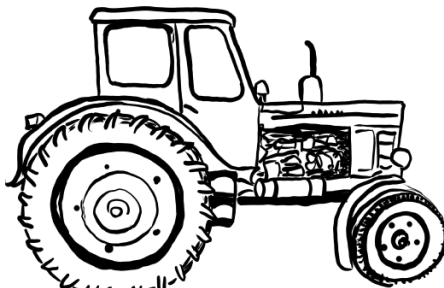
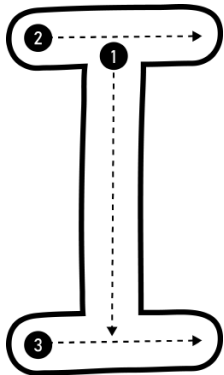
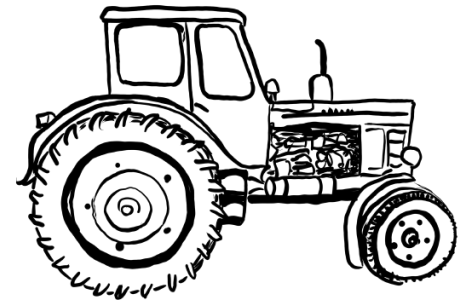
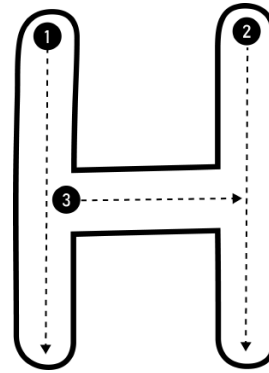
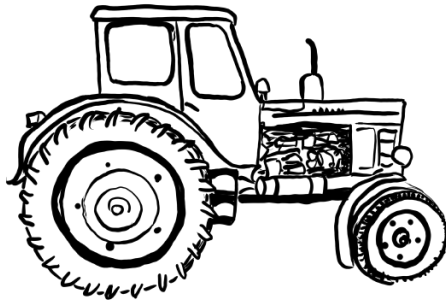
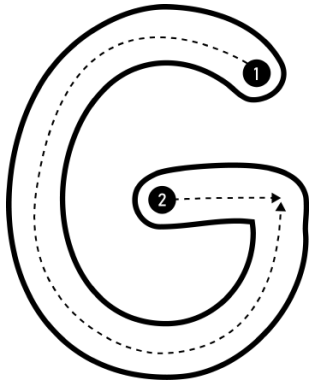
Activity Instructions

1. Explain to students that they will be practicing making letters by drawing an alphabet card and then using a toy tractor to create the letter in the soil.
2. Demonstrate how to use the tractor to make the letter by drawing the letter in the soil with a pencil, and then driving the tractor along the lines to make the letter shape.
3. Have each child draw a letter card from a stack, and show them how to write the letter in the soil with a pencil.
4. Encourage the children to use the toy tractors to drive along the lines of the letter and make the shape in the soil.

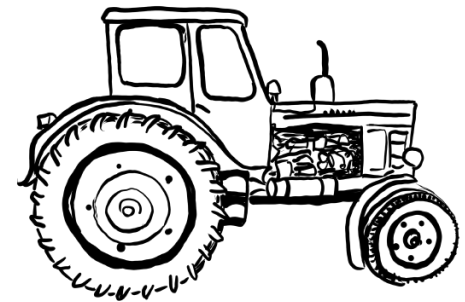
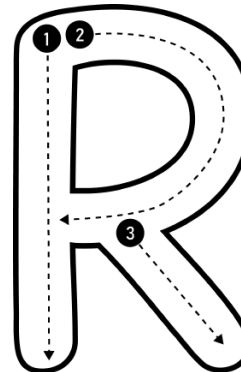
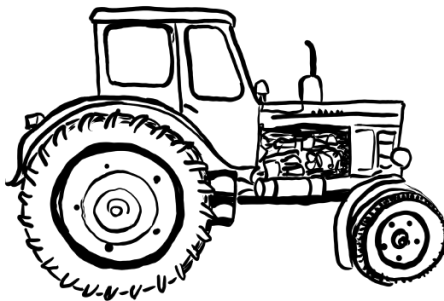
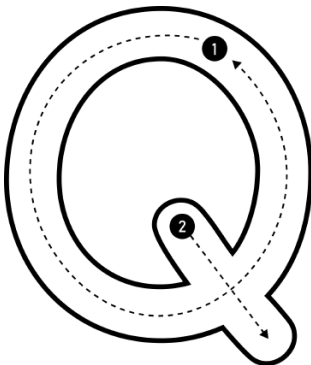
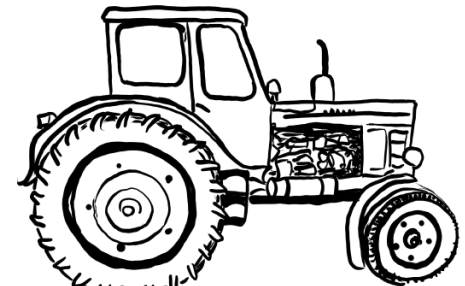
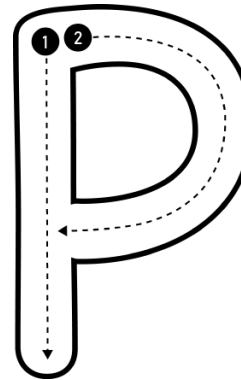
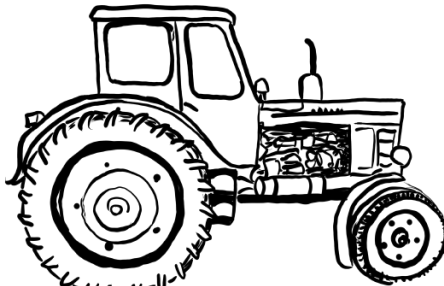
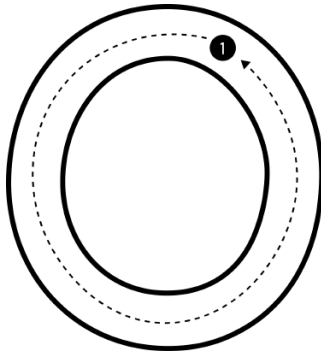
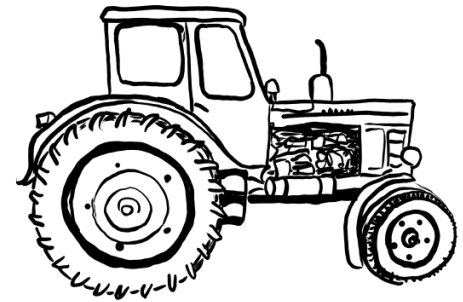
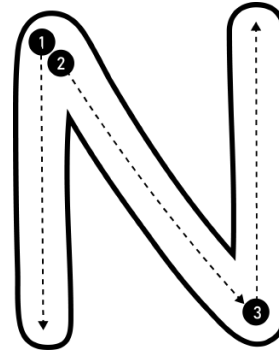
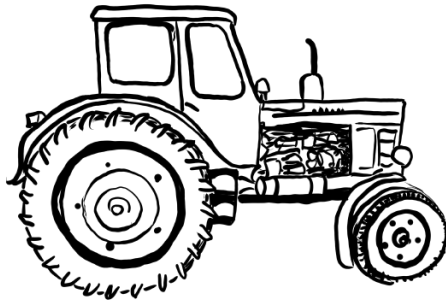
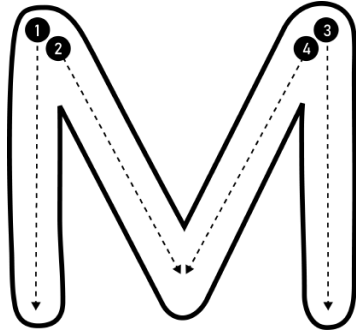
Alphabet Plowing Cards



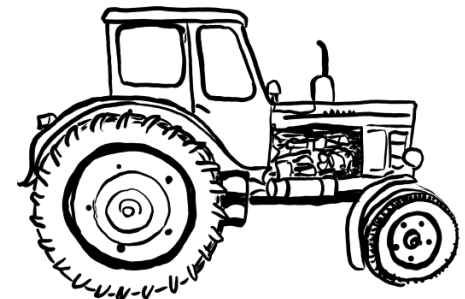
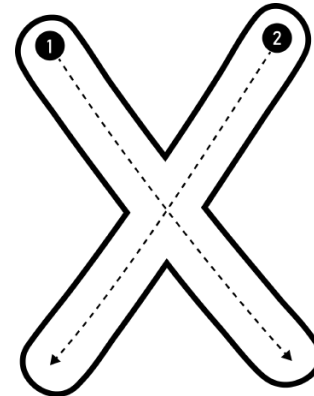
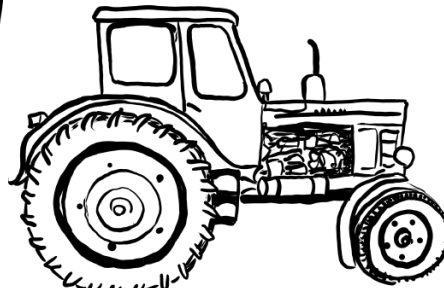
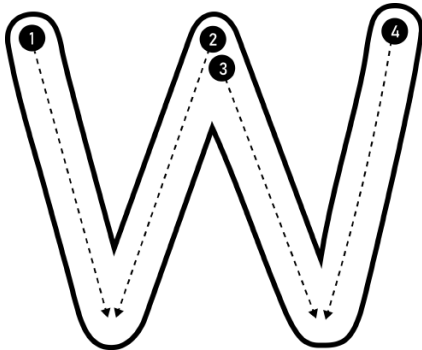
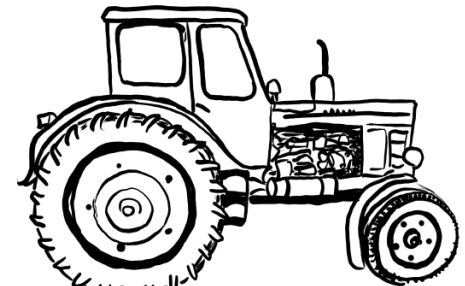
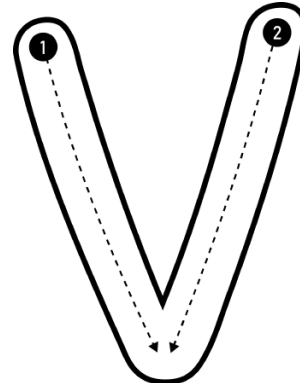
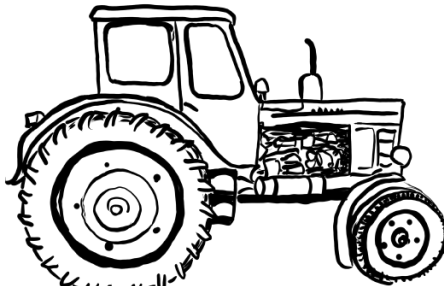
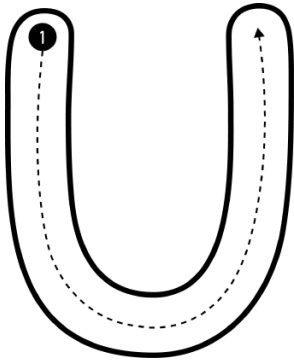
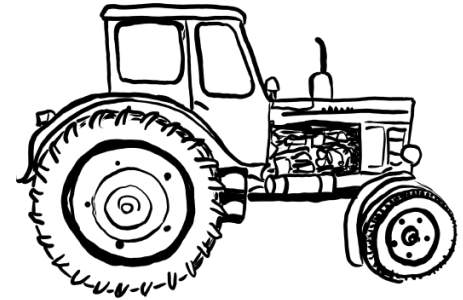
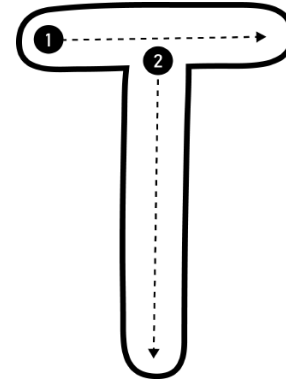
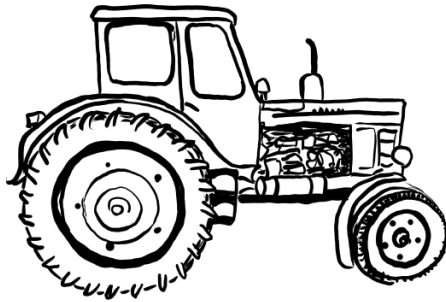
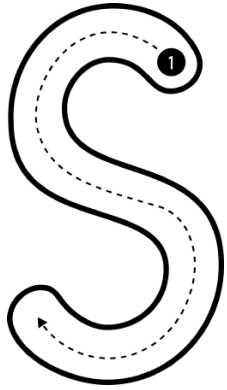
Alphabet Plowing Cards



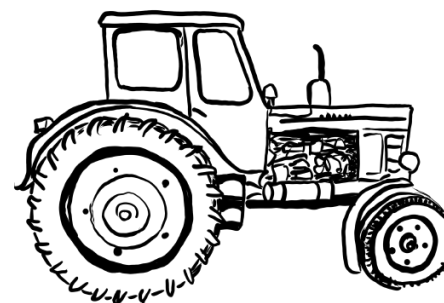
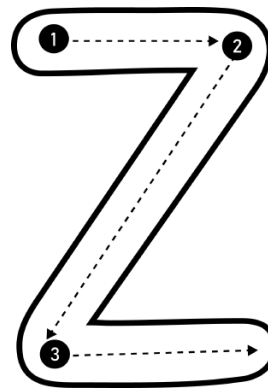
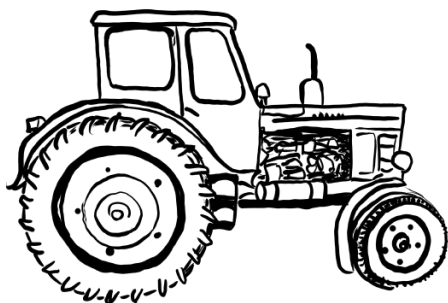
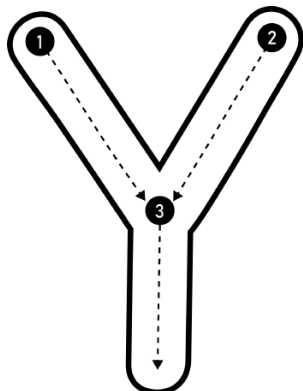
Alphabet Plowing Cards



Alphabet Plowing Cards

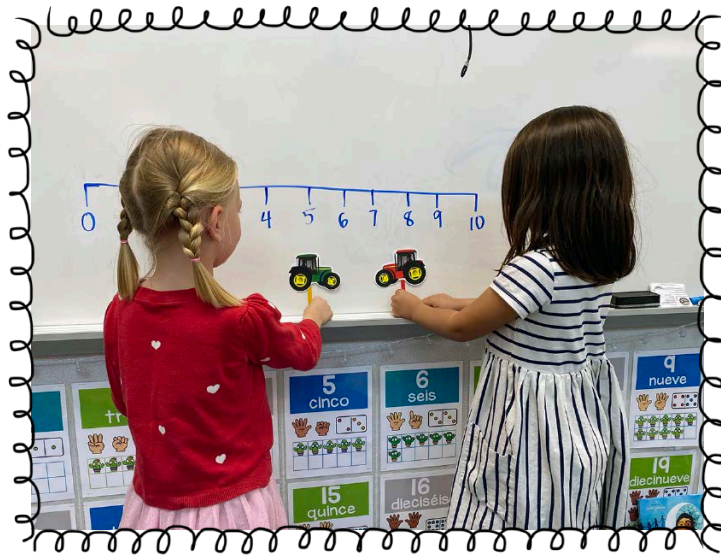


Alphabet Plowing Cards



Day 4: Math

Tractor Squeeze



Skills

Identify numbers 1-10
Concepts of more and less
Using a number line

Materials

- Tractor props (Prior to the lesson, cut and laminate the props for future use)
- Craft sticks
- Number line, 1-10 or 1-20

Setting

Large group, small groups, or partners

Activity Instructions

1. Gather the needed materials and determine the most suitable number line for learners to use. Print the tractor props and tape a craft stick to the back of each one. You will need one set for each group.
2. The goal of the game is to correctly guess the mystery number that has been selected by another player using a number line. The teacher can first ask a volunteer to partner with the teacher to demonstrate the game to the class.
3. To begin the game, one player should select a mystery number and write it down without revealing it to the other player.
4. The other player will attempt to guess the mystery number. After each guess, the player who selected the mystery number should indicate whether the guess is too high, too low, or correct.
5. The number line and tractor props will help the players make more accurate guesses. A tractor prop will be placed at each end of the number line, facing the middle. If the number guessed is too low, the green tractor will advance to that number, narrowing down the possible numbers. If the number guessed is too high, the red tractor will advance to that number. Play continues until the guessing player guesses correctly.

Tractor Squeeze

PROPS FOR PARTNERS



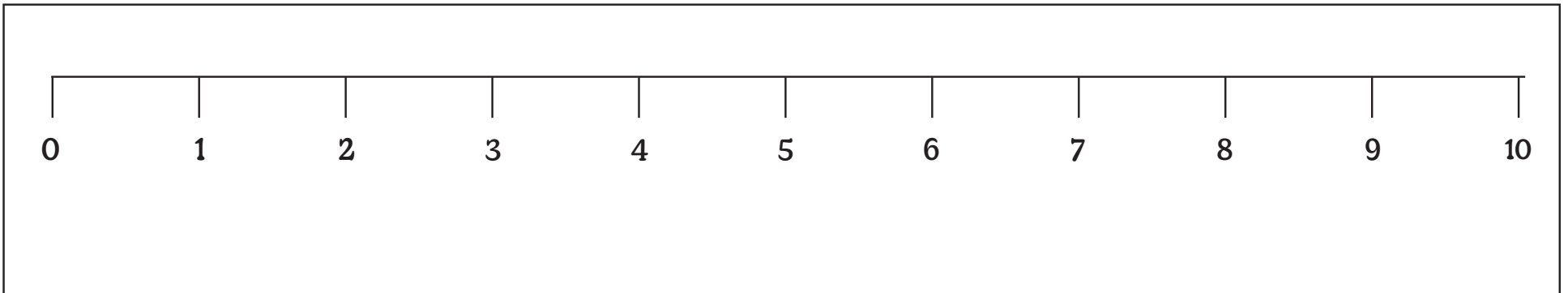
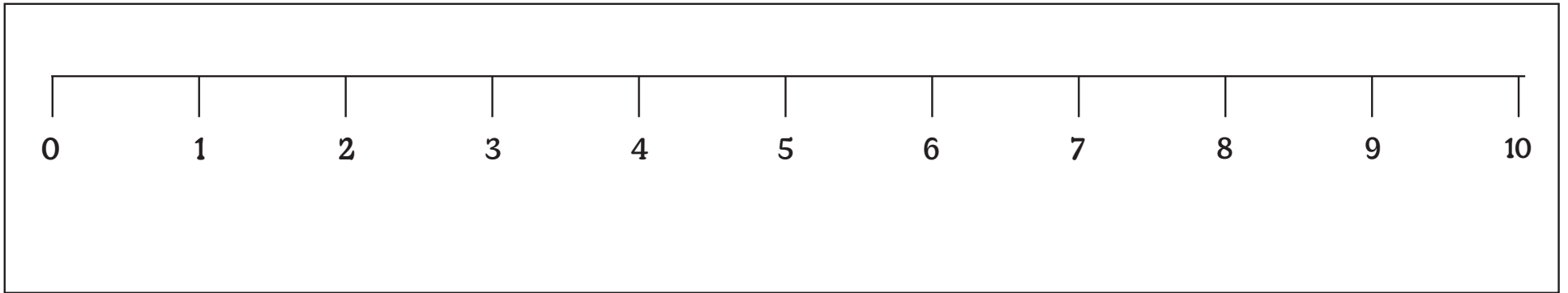
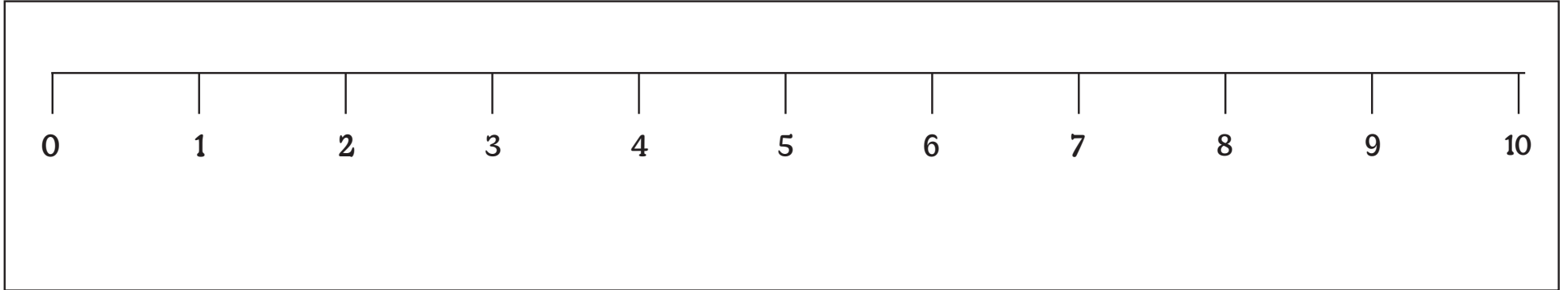
Tractor Squeeze

PROPS FOR THE CLASS



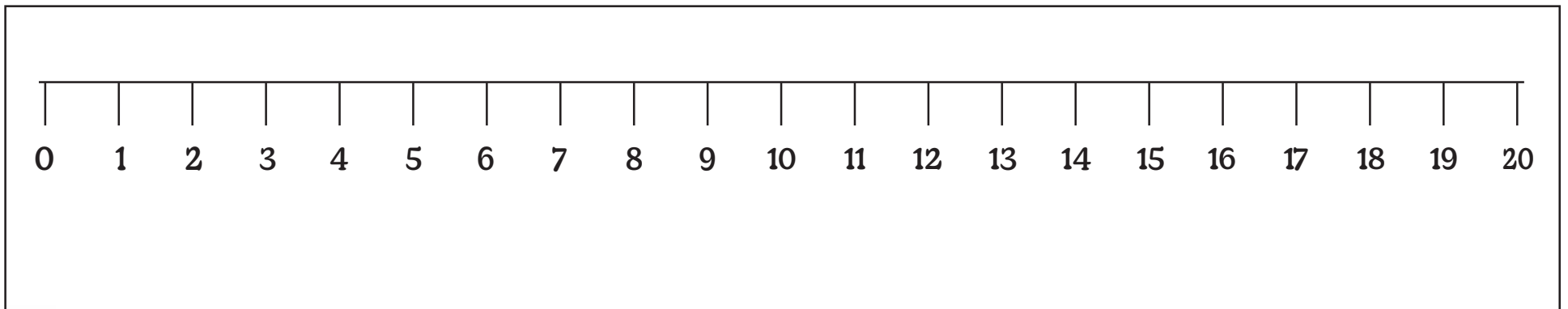
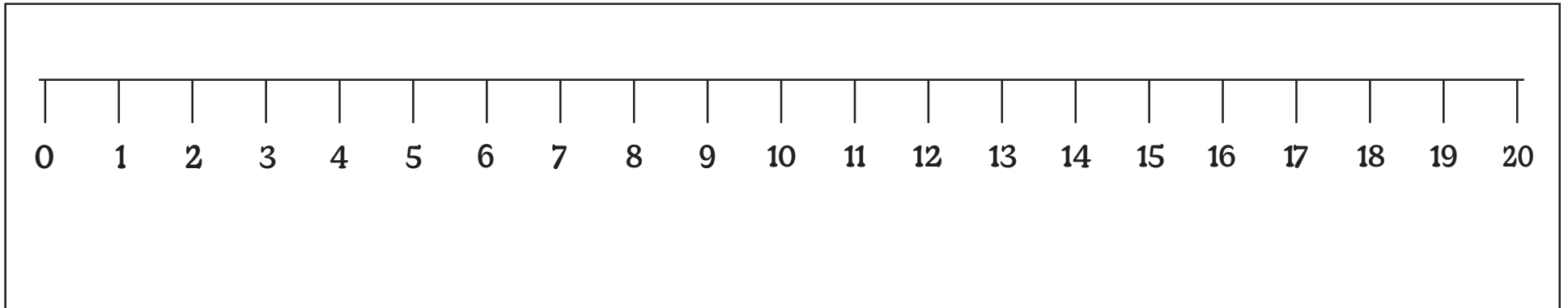
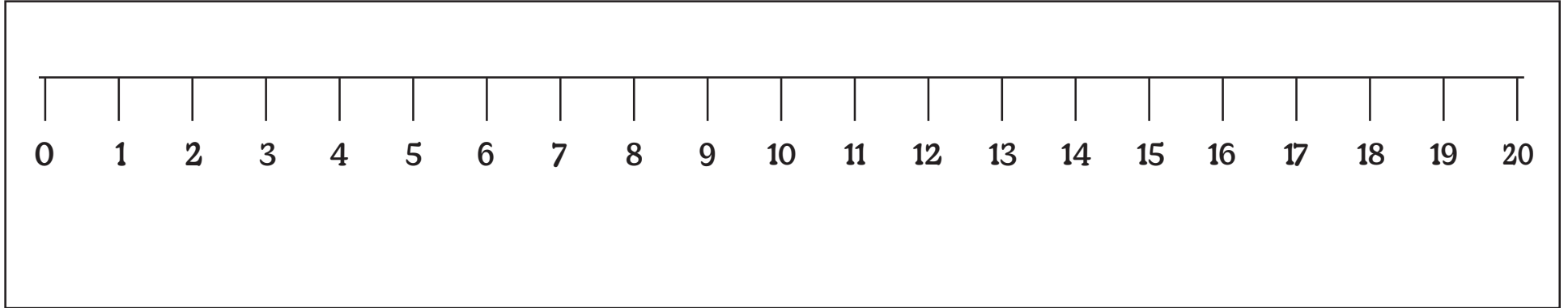
Tractor Squeeze

Number Line 1-10



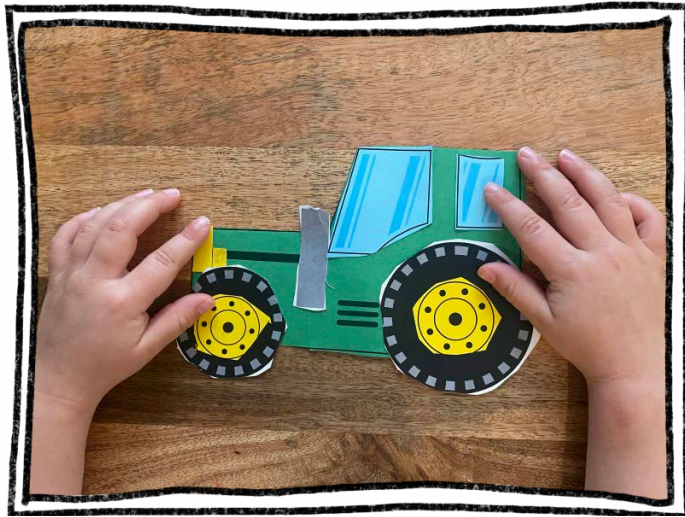
Tractor Squeeze

Number Line 1-20



Day 4: Art

Build a Tractor



Skills

Identify parts of a tractor

Fine motor skills (cut with scissors, glue with glue sticks)

Materials

- Tractor templates printed on cardstock
- Green, yellow, dark gray and light blue cardstock
- Scissors
- Glue sticks
- Spray bottle with water

Setting

Whole class or small group

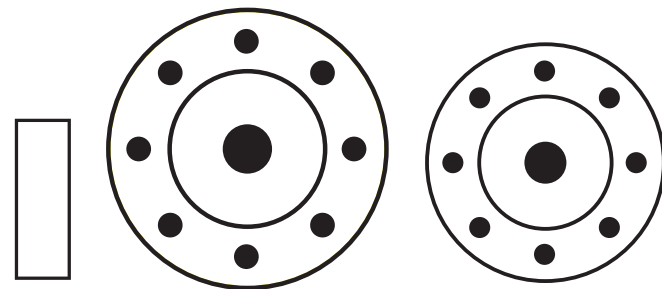
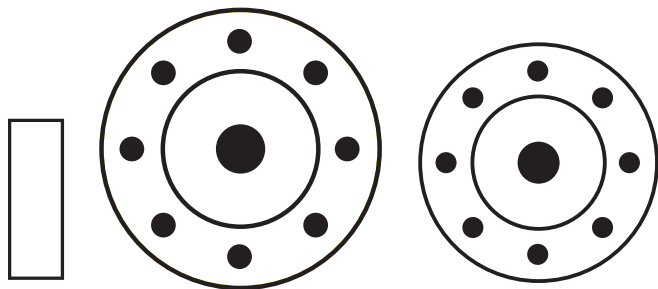
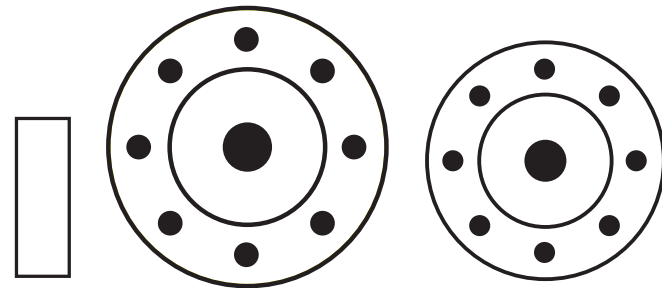
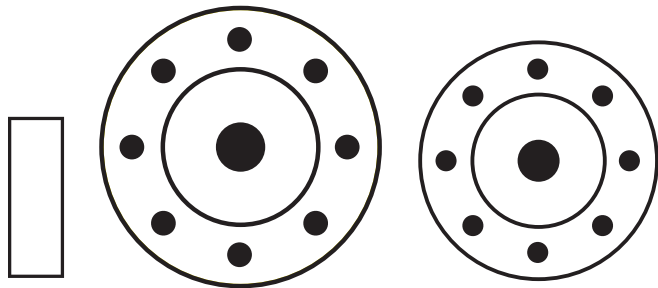
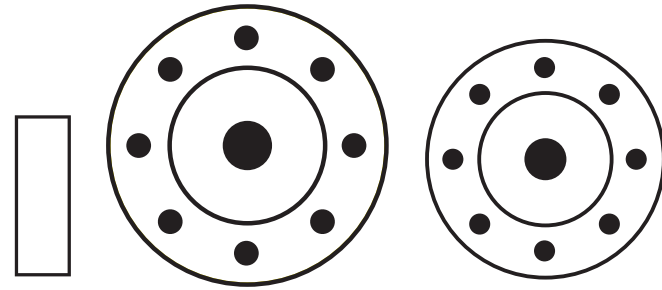
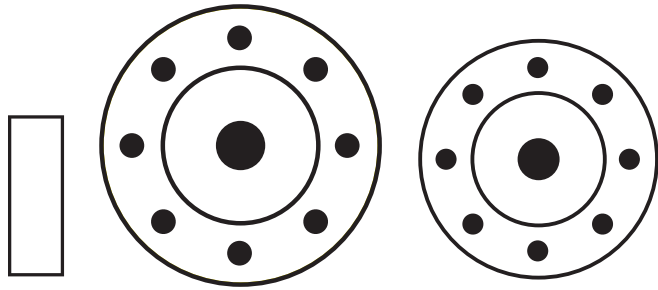
Activity Instructions

Note: This activity can come to life by inviting a local farmer to bring a tractor to your school site and giving students the opportunity to see a real tractor and ask related questions.

1. Before the lesson, gather materials and print the templates onto the appropriate colored cardstock.
2. Instruct students to cut out the different tractor parts. As they work, discuss the following parts and their functions:
 - a. Cab: The cab is the main part of the tractor where the driver sits.
 - b. Front wheels: The front wheels are smaller than the back wheels and are responsible for steering the tractor.
 - c. Back wheels: The large back wheels provide the tractor with power to move forward. The patterns on the surface of the tire, called tread, help it grip the ground.
 - d. Engine: The engine is the heart of the tractor and provides the power for it to run.
 - e. Exhaust pipe: The exhaust pipes prevent harmful pollutants from being released into the air.
 - f. Technology: Many modern tractors now come equipped with various technologies to help the driver operate the machine more efficiently and effectively. Some tractors can even be driven by remote control!
3. Once all the parts are cut out, help the children assemble the tractor by gluing the parts together.
4. Once the tractors are complete, allow the children to play with them and pretend they are driving around on a farm. You can also encourage them to create their own farm scenes using materials such as playdough or blocks.

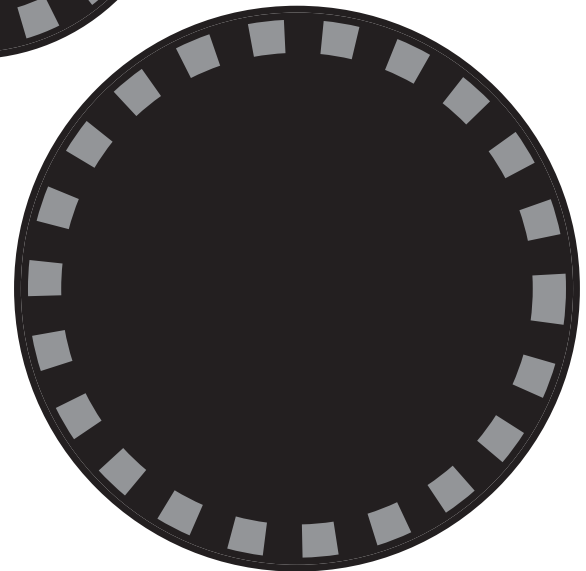
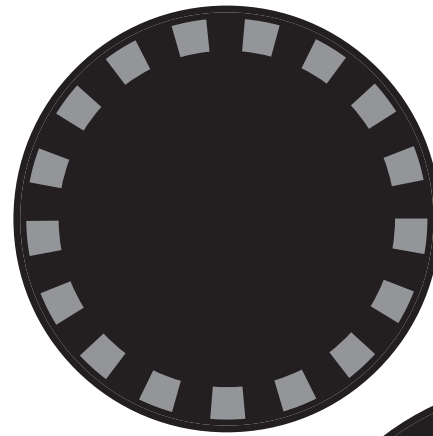
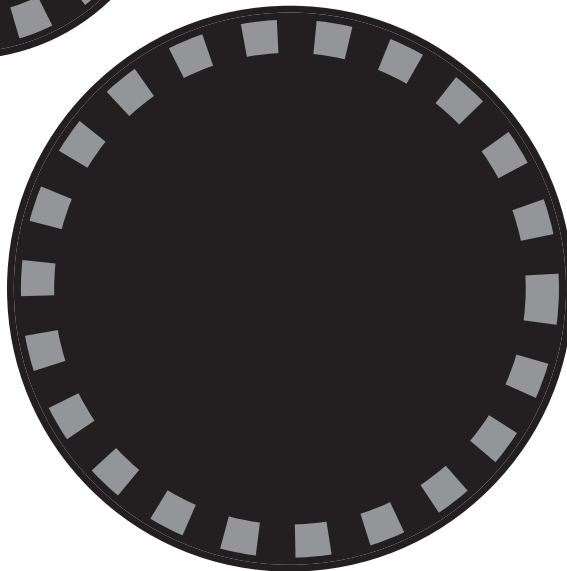
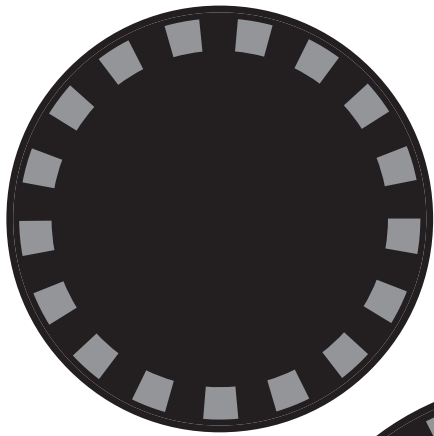
Build a Tractor

Print on yellow cardstock



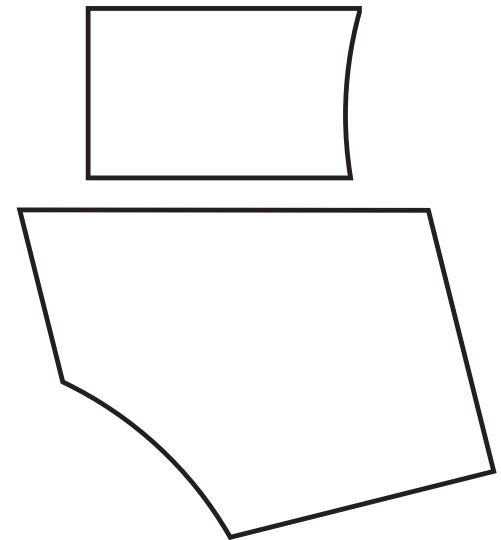
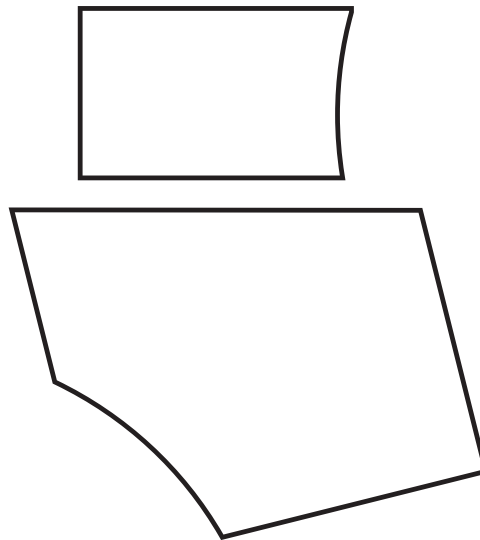
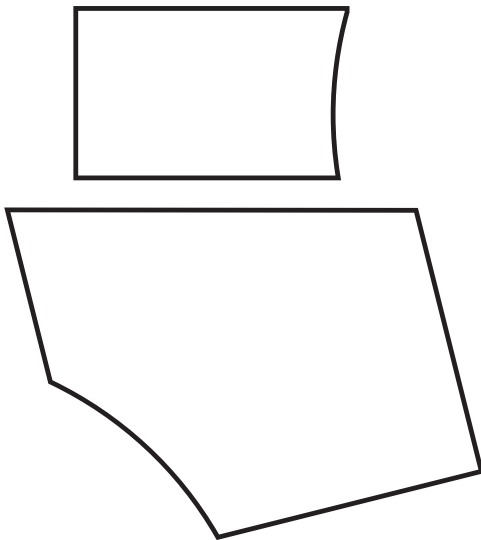
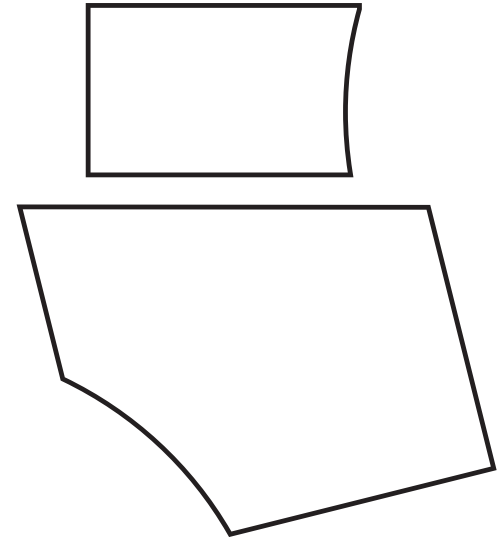
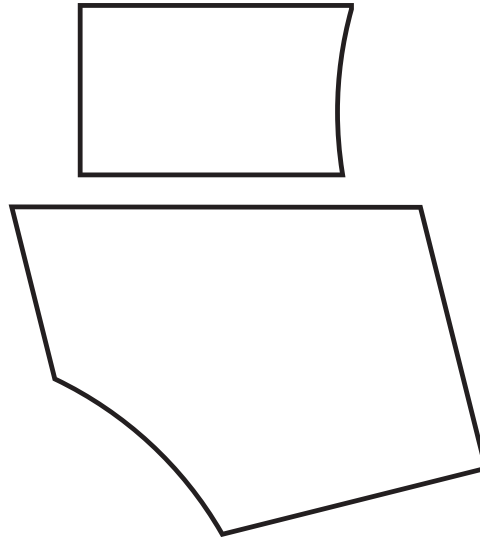
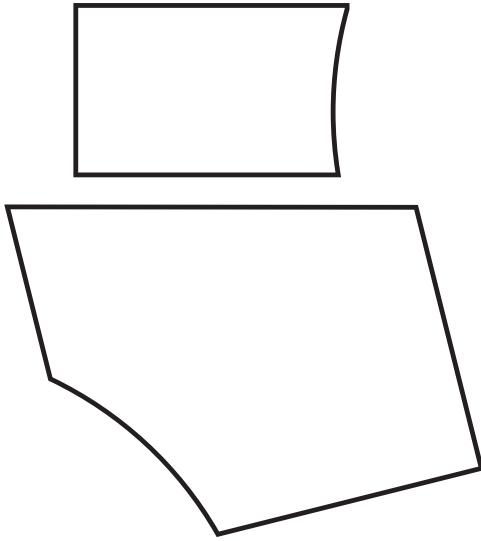
Build a Tractor

Print on white cardstock



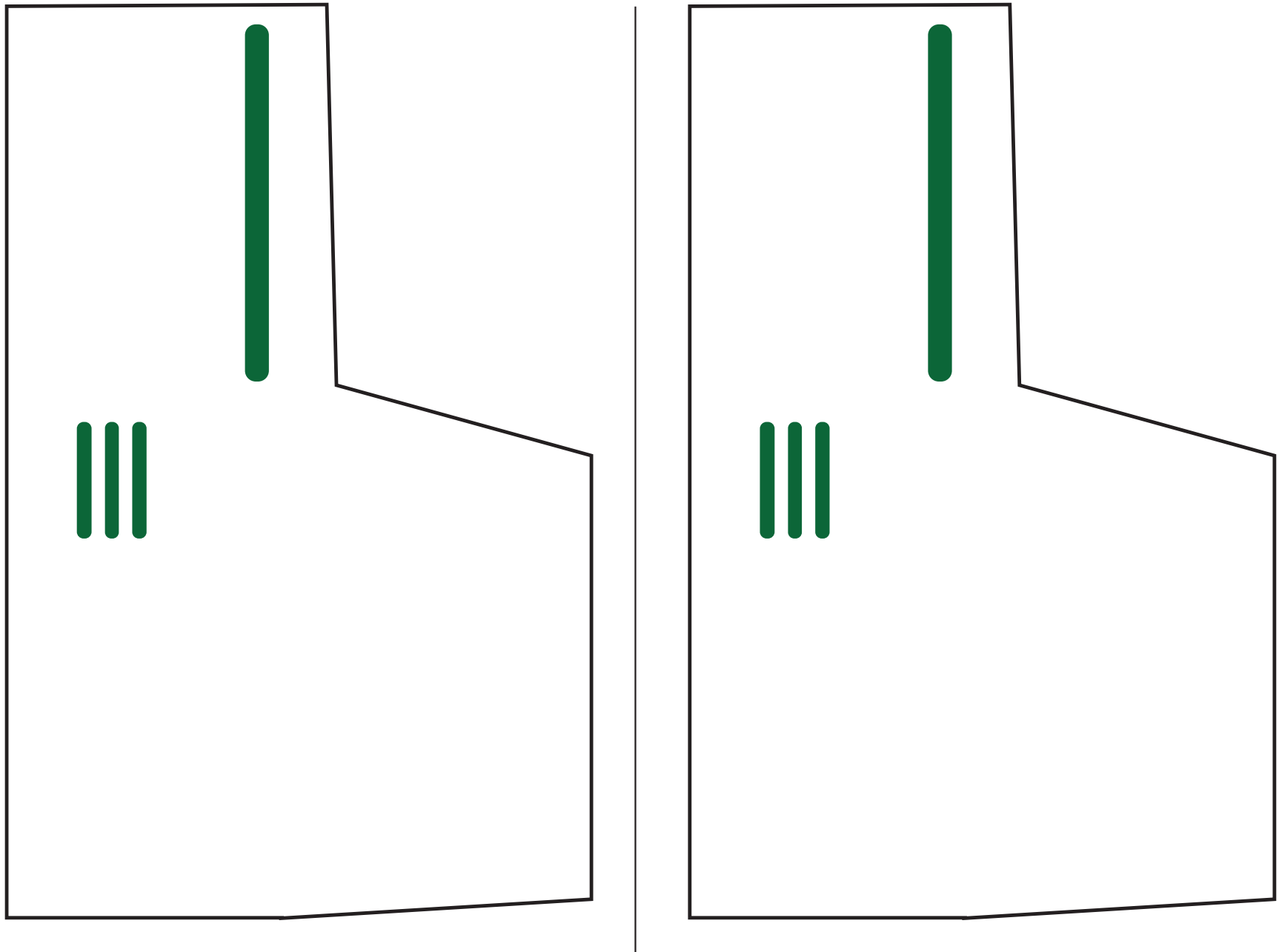
Build a Tractor

Print on light blue cardstock



Build a Tractor

Print on green cardstock



Day 5: Thank You Farmers

BIG Question: How do farmers help our community?

	Activity	Description	Materials	Goals/Skills
Circle Time	Book: <i>Right This Very Minute</i> by Lisl H. Detlefsen Watch: Life on The Farm Videos	Read the book. Review vocabulary development photo cards. Watch videos featuring a sheep producer and tomato farmer.	<ul style="list-style-type: none"> • Book: <i>Right This Very Minute</i> by Lisl H. Detlefsen • Vocabulary development photo cards (6) 	<ul style="list-style-type: none"> • Identify the origin of different products • Learn new vocabulary
Literacy	Shared Writing: Thank You Farmer	Think about the ways a farmer contributes to our community. Write a thank you letter to a farmer.	<ul style="list-style-type: none"> • Easel pad • Marker • Thank You Farmer student worksheet 	<ul style="list-style-type: none"> • Collaborate with peers • Express thoughts and ideas • Writing mechanics • Letter-sound correspondence
Math	California Agriculture Grab and Graph	Create a bar graph that depicts California's top ten agricultural products.	<ul style="list-style-type: none"> • Bag or container • Graphing tiles • Bar graph worksheet • Crayons 	<ul style="list-style-type: none"> • Sort objects • Count numbers up to 10 • Represent data
Unit Review	Farm Match Scavenger Hunt	Collect farm cards from around the room and sort the cards by farm setting: orchard, barn, or field.	<ul style="list-style-type: none"> • Farm cards • Farm Match worksheet • Clipboard 	<ul style="list-style-type: none"> • Identify where different agricultural products are grown • Think critically • Classify objects

Day 5: Circle Time



Skills

Identify the origin of different foods
Learn new vocabulary

Materials

- Book: *Right This Very Minute* by Lisl H. Detlefsen
- Vocabulary development photo cards (6)

Setting

Circle time

Activity Instructions

1. Read the book, *Right This Very Minute* by Lisl H. Detlefsen.
2. After reading, review the included vocabulary development photo cards.
 - a. Show the cards to the children and say the name of each photo on the card. Encourage the children to repeat the vocabulary words after you
 - b. Ask the children to identify the object or action on the card and describe what it is or does.
 - c. Possible prompts:
 - Sap: Sap is a sweet and sticky liquid that comes from trees, especially maple trees. In the springtime, sap starts flowing in abundance through the tree's trunk and branches. Farmers collect the sap and use it to make maple syrup. *What do you like to put maple syrup on?*
 - Frost: Frost is a very thin layer of ice that forms on surfaces such as leaves, grass, and windows when the temperature drops below freezing point. Heavy frost can damage crops. *What does frost look/sound/feel like?*
 - Soil Sensors: Soil sensors are little machines that tell us information about the soil, like how much water and nutrients it has. They help farmers take care of their plants and the environment. *What do you think a farmer would do if the soil sensor said the soil was too dry?*
3. Watch the "Life on the Farm" videos by scanning the QR code. One video features a sheep rancher who produces wool which is used to make socks, hats, and other fiber products. The other video spotlights a tomato farmer who produces tomatoes that are used to make salsa, ketchup, and other tomato products.
4. Use the following questions to prompt discussion:
 - a. What farms did we learn about today? What products do these farms produce?
 - b. How were these farms different? How were they similar?
 - c. What do you think these farmers are doing right this very minute? Make a list of tasks that the farmers might be doing.
 - d. How do farmers and ranchers help our community?

Day 5: Vocabulary Development Photo Cards

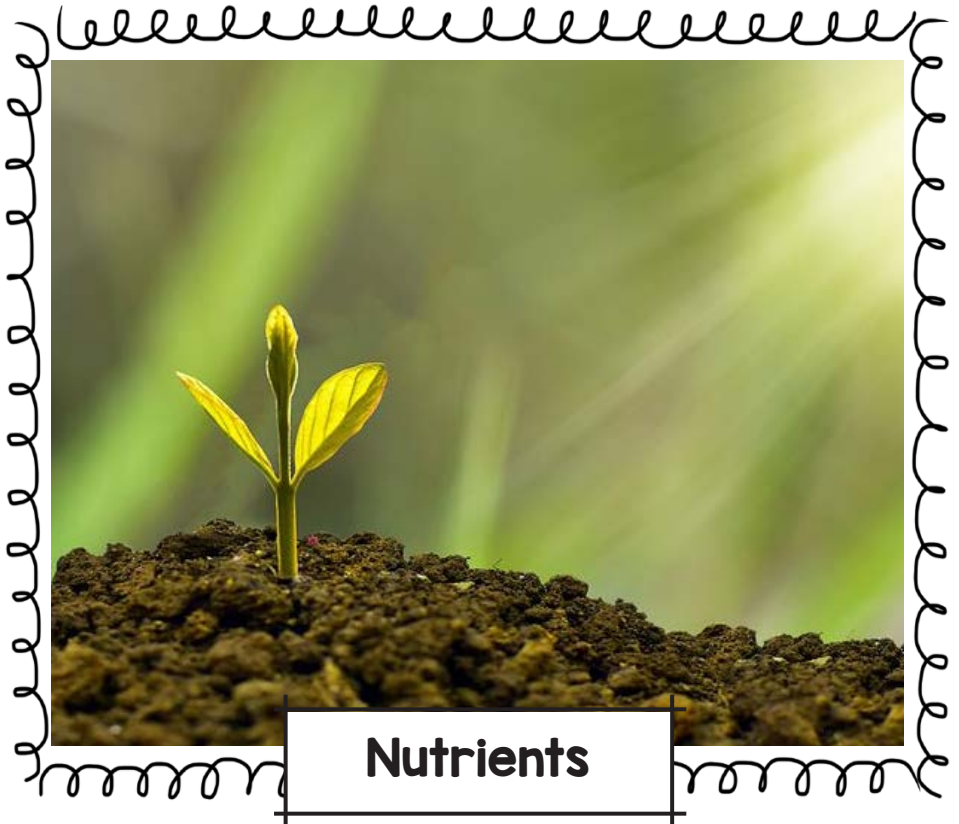


Sap

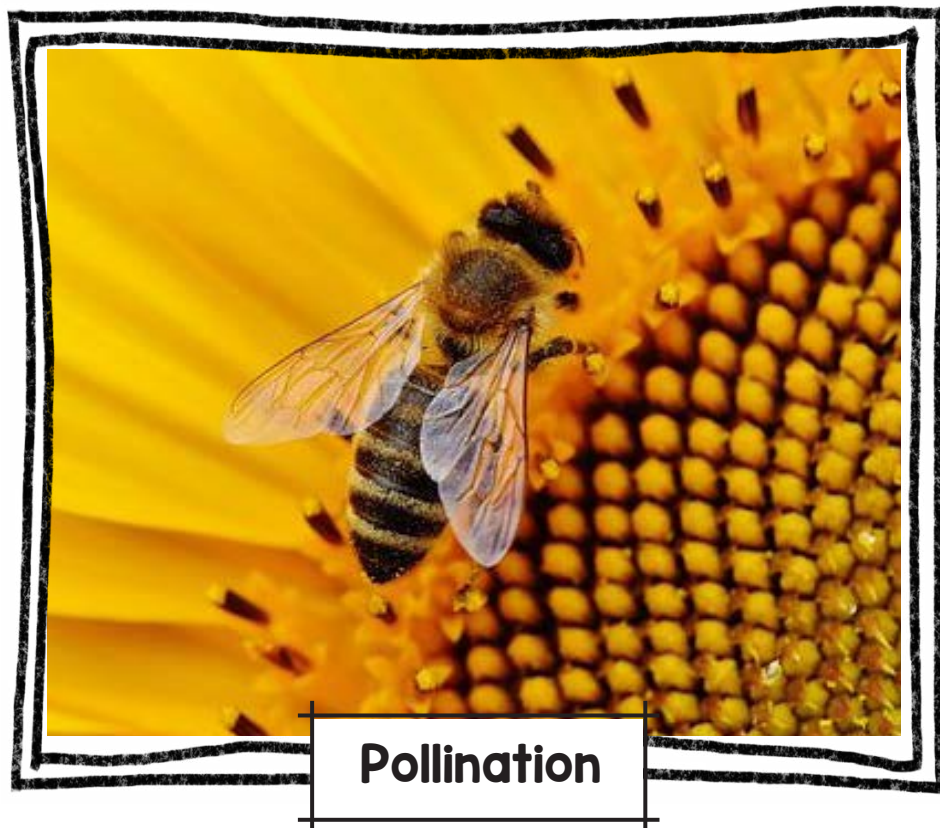


Frost

Day 5: Vocabulary Development Photo Cards



Day 5: Vocabulary Development Photo Cards



Day 5: Literacy

Shared Writing: Thank You Farmer



Skills

Collaborate with peers
Express thoughts and ideas
Writing mechanics
Letter-sound correspondence

Materials

- Easel pad
- Marker
- Thank You Farmer student worksheet

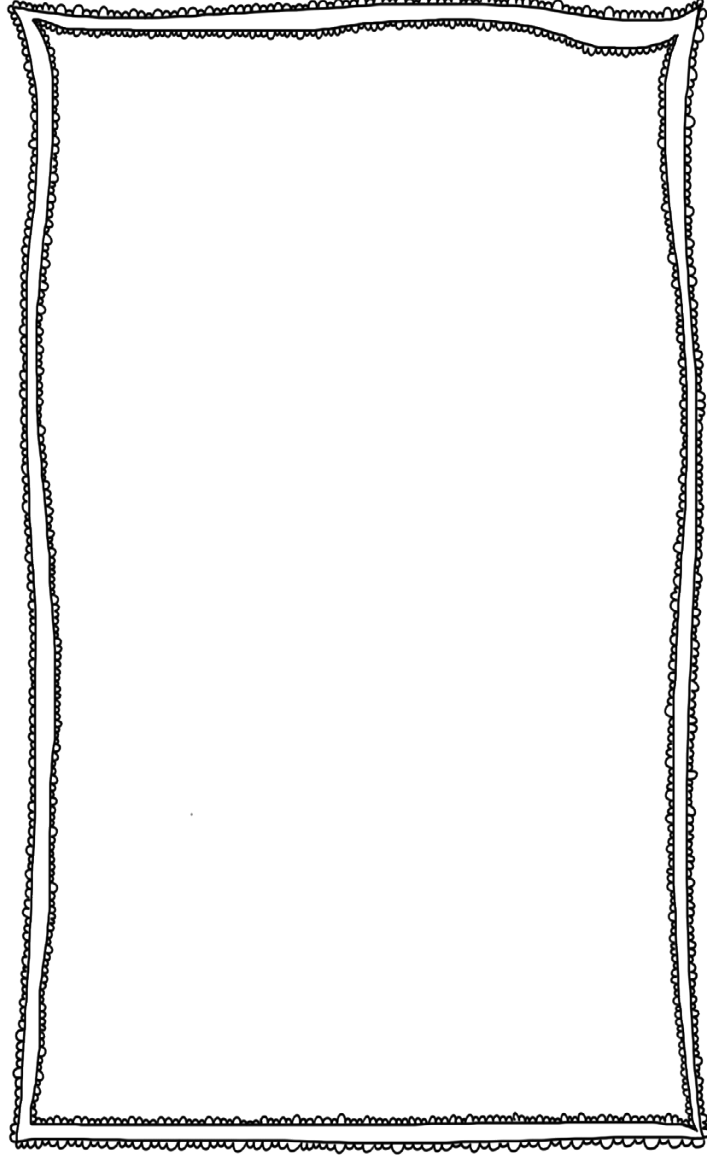
Setting

Large group or individual

Activity Instructions

1. To start, review the different agricultural products farmers grow and raise, and how the products sustain and improve our lives. Tell students, “Today we are going to write a letter to a farmer and tell them how much we appreciate their hard work.”
2. Brainstorming: Ask the students what they want to say to farmers to thank them for the hard work they do. Encourage students to share about their favorite crops and livestock animals, and what they appreciate about farmers and ranchers. Record their responses.
3. Shared writing: Using the ideas from the class, write a letter to a farmer. Invite students to help with spelling, writing, and drawing pictures to go along with the letter. Read the finished letter out loud to the class.
4. Independent writing: Provide students with a Thank You Farmer worksheet. Encourage them to use the ideas generated by the class or their own ideas to fill in the blanks. They may illustrate their writing in the space provided.
5. After students have finished writing and drawing, encourage them to share their letters with the class. Help them read their letters out loud if needed, and celebrate their achievements. By writing a thank you letter to a farmer together students can learn the importance of showing gratitude and appreciation for the hard work that goes into growing their food and fiber.
6. Note: If your class is interested in mailing letters to a real farmer or rancher, please contact California Foundation for Agriculture in the Classroom at info@learnaboutag.org for contact information.

Thank You Farmer



DEAR FARMER,

Our class has been learning about _____.

We have learned that farmers are _____
and _____.

My favorite crop is _____
because _____.

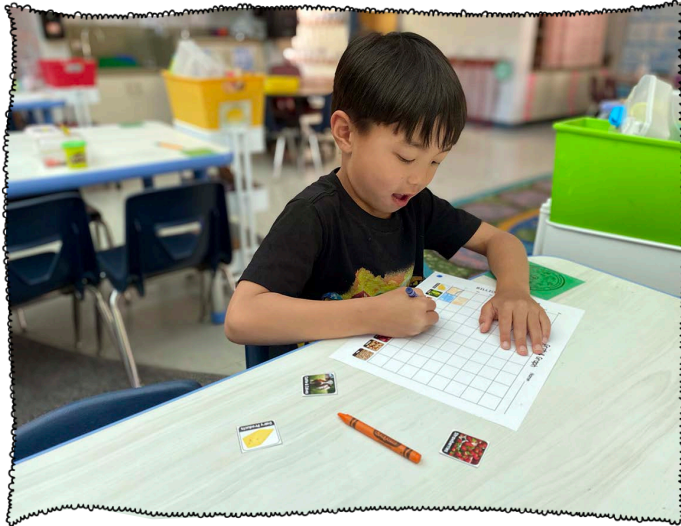
Thank you for helping our community!

Sincerely,



Day 5: Math

California Agriculture Grab and Graph



Skills

Sort objects
Count numbers up to 10
Represent data

Materials

- Bag or container
- Tiles with pictures of the top ten California agricultural commodities
- Bar graph worksheet for each student
- Crayons

Setting

Small group or whole class

Activity Instructions

1. First, introduce the concept of bar graphs. Tell students, “A bar graph is a way to show information using pictures and bars. We can use bar graphs to compare things. We’re going to make a bar graph today using pictures of different items produced by California farmers and ranchers.”
2. Explain that students will be graphing the commodities using tiles that they will pick from a bag. Each tile represents the value of the commodity in billions of dollars. The more tiles the commodity has, the greater value it has.
3. Invite a volunteer to pick a tile from the bag and show it to the class.
4. Have the class work together to identify the commodity it represents.
5. Instruct students to color in the appropriate box on their worksheet to represent the commodity, making the height of the bar equal to the value of the commodity in billions of dollars.
6. Repeat steps 3-5 until all the tiles have been drawn from the bag.
7. Review the graph, pointing out which commodities have the tallest and shortest bars.

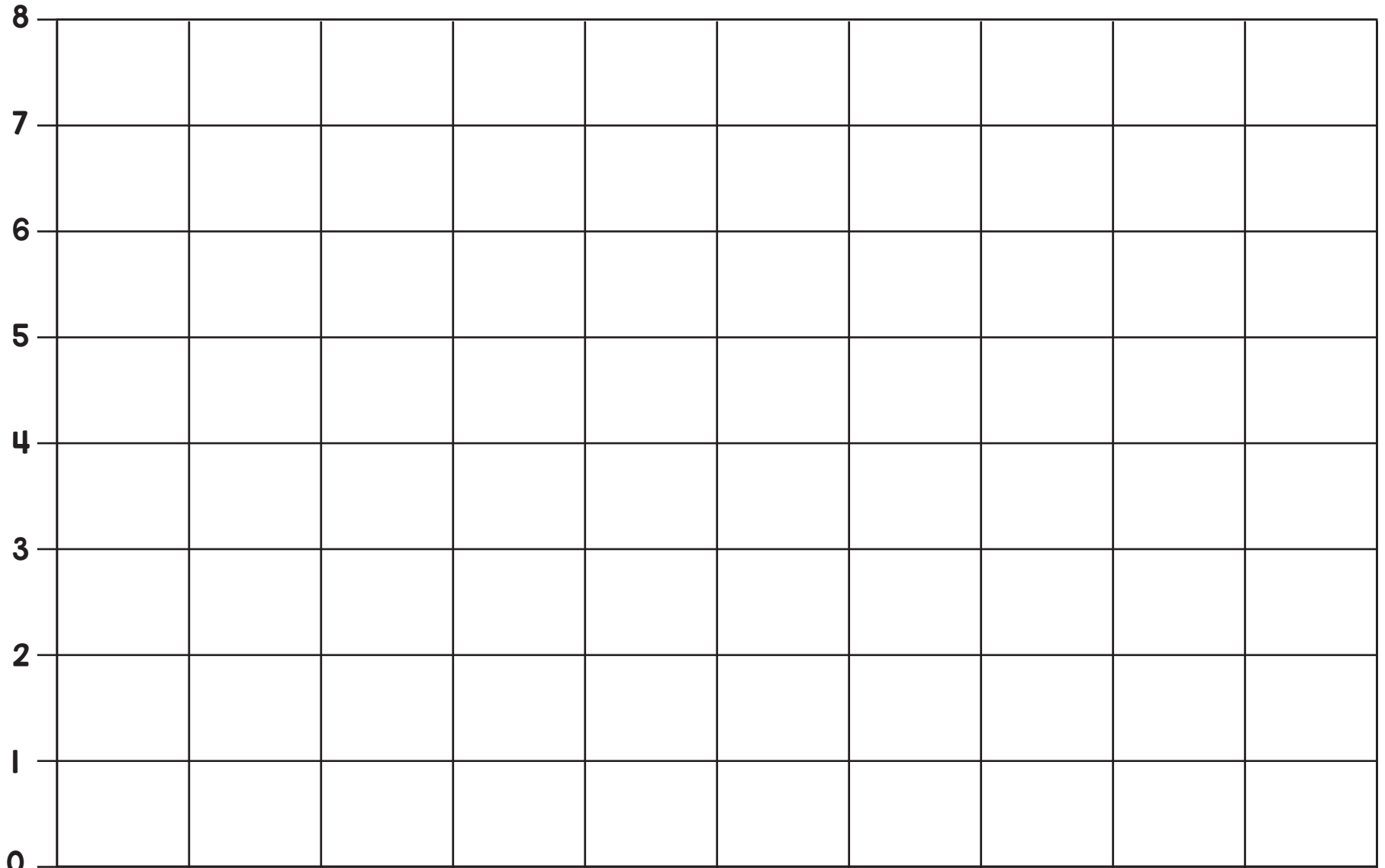
Grab and Graph Tiles

 Dairy Products	 Grapes	 Grapes	 Almonds	 Cattle & Calves	 Pistachios	 Walnuts
 Dairy Products	 Grapes	 Grapes	 Almonds	 Strawberries	 Pistachios	 Rice
 Dairy Products	 Dairy Products	 Grapes	 Almonds	 Strawberries	 Lettuce	
 Dairy Products	 Dairy Products	 Almonds	 Cattle & Calves	 Strawberries	 Lettuce	
 Dairy Products	 Dairy Products	 Almonds	 Cattle & Calves	 Pistachios	 Tomatoes	

Grab and Graph

Name: _____

BILLIONS OF DOLLARS



Cattle & Calves



Rice



Tomatoes



Dairy Products



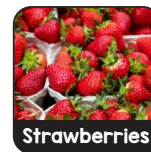
Almonds



Pistachios



Lettuce



Strawberries



Walnuts



Grapes

PRODUCTS

Day 5: Review

Farm Match Scavenger Hunt



Skills

Identify where different agricultural products are grown
Think critically
Classify objects

Materials

- Farm cards
- Farm Match worksheet
- Clipboard
- Glue stick


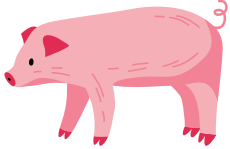





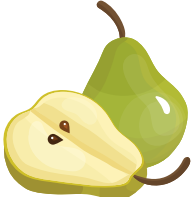





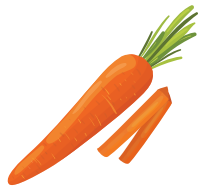

Setting

Large group

Activity Instructions

1. Prior to the activity, copy and cut one set of farm cards for each group. Hide the cards around the room, grouping the same cards together. For example, all the pig cards may be taped to the wall under a table.
2. Introduce the activity. Tell the students that today, your classroom represents a community. In the community, there are many different types of farms and each farm grows or raises a certain agriculture product.
3. Each group will send a representative, one at a time, to find and collect one product.
4. After the group member collects the product, they will return to their group and decide where the product is grown: in a field, orchard, or barn.
5. They will glue the product in the appropriate place on the corresponding worksheet.
6. Each group member will take turns finding the products around the room and returning to the group. Repeat the steps until all 15 products are found and glued onto the worksheet.
7. Divide students into groups of three or four students. Give each group a clipboard with a worksheet and glue stick. Conduct the activity.
8. Review each of the farm settings and the products grown there. Invite students to share some of the things they've learned throughout the unit. You can say, "Even though our unit on farms is ending, we can continue to learn about and appreciate the amazing farms in our state. We can keep exploring and asking questions, and we can continue to support local farmers and their families. Thank you for learning with me and exploring the wonderful world of farms."

Farm Cards

Farm Match Worksheet

IN A FIELD

IN AN ORCHARD

IN A BARN

