Dear Volunteer,

Thank you for your participation in our 2024 Literacy Project! The literacy project works to celebrate Oregon’s diverse agricultural commodities while improving literacy and agricultural awareness of Oregon students in grades K-4. Each year, a new agriculturally themed book is chosen with a lesson connected to the theme of the book.

This year, our literacy project features the book, *Up in the Garden and Down in the Dirt* by Kate Messner. This story highlights the wonders of gardening as a girl and her grandmother care for a garden through the seasons of planting, managing pests and harvesting. This book showcases the many organisms that live in the garden. Throughout the story, beneficial organisms are used to combat garden pests as the girl and her grandmother work to grow a bountiful harvest.

As a volunteer for the 2024 Literacy Project, you will be supplied with the book, lesson plan, bookmarks and all the materials for the activity. Enclosed in this packet you will find a copy of the lesson and tips for managing a productive learning environment.

Thank you for your part in increasing agricultural literacy and awareness!

Together for agriculture,

**Oregon Agriculture in the Classroom Team**

Jade Davidson, Executive Director

Brittany Capell, Education Programs Coordinator

**Up in the Garden and Down in the Dirt**

**MARCH 1 - JUNE 7**

**QUESTIONS?**

Give us a call at (541)737-1318 or email aitc@oregonstate.edu
Watch our Training Video

Use our training video to prepare for your classroom visit. The video highlights each part of the lesson plan and provides helpful hints to ensure a successful experience in the classroom.

Part 1: Introduction and Reading 15 minutes

1. Briefly introduce yourself and your connection to agriculture (2 minutes) Bring props, samples or photos of your life in agriculture. This is a very important part of these presentations! Take your time and talk about how you contribute to agriculture.

2. Introduce the Six F’s of Agriculture (2 minutes) Say, “Agriculture is a big word and it is an important part of our daily lives. I am going to teach you “The Six F’s of Oregon Agriculture” to help you remember how important agriculture is. The first F is for Farming. Farms are where food and fiber is produced. The second F is for Food. Agriculture feeds us. The third F is Fiber. Fiber is used to make fabric and clothes. The fourth F is Fishing. In Oregon, we harvest lots of food from the ocean. The fifth F is Flowers. One of Oregon’s biggest agricultural industries is nursery and greenhouse crops like flowers. The last F is Forestry. Wood products are used to make buildings, furniture, paper products and more. As you can see, agriculture is everywhere and very important to all of us. It feeds us, keeps us warm and provides us with shelter.” You may consider having the students repeat, act out or guess the Six F’s as well. If the classroom has a dry erase board, consider listing them on the board as you discuss them.

3. Introduce the topic of garden pests (1 minute) Say, “Today, we are going to read about growing fruits and vegetables in the garden and different pests and friends that visit the garden.”

4. Ask the students “What kinds of animals or insects do you think visit or live in the garden?” Have students brainstorm different animals and insects they think might visit or live in the garden. Explain to students that unwanted garden visitors are called pests.

5. Introduce the Story (1 minute) Say, “Today, we are going to read a story about the many visitors that enter the garden. As we read the book, pay close attention to the animals and insects and their relationship to one another in the garden. Some are helpful while others harm or damage the crops!”

6. Reading (10 minutes) READ SLOWLY and take time to show students the pictures as you go. As garden friends and pests are introduced, be sure to point at them and emphasize beneficial garden friends that help reduce pests. Specific book examples include ladybugs eating aphids, robins eating crickets, bats eating June bugs, skunks eating cutworms and a garter snake eating grasshoppers.

Part 2: Lesson 25 minutes

2a. Transition to Activity

1. After you have read the book, lead the students with a few follow-up questions. Ask, “What are the steps of planting a garden? What animals and insects visited the garden? What animals or insects were helpful in the garden?”

2b. Garden Friends and Pests Game (20 minutes)

1. Before beginning the activity, separate the cards into piles of each of the following: Crop cards (cards with dark green top), Invasion cards (cards with yellow top), Friends of the Garden cards (cards with light green top). Shuffle each pile before distributing the cards.

2. Explain to students that when farmers plant crops, they have to consider what pests may visit their crops. Then, the farmer can make a plan to protect their crops from being eaten by animals or insects. Some farmers plant specific crops to attract helpful visitors to the garden.

Grades K-1

1. Have students move to an area where they can play the game as a class. Invite students to create a circle where you can place the game cards on the ground in the center of everyone.

2. Explain the activity. Say, “Today we are going to play a game. As a class, we will be responsible for a pretend garden. You will start with five crop cards. These crops will represent the plants in the garden. We may lose crops depending on the scenario and the Garden Friends and Pests cards we draw. The goal is to have crops available to harvest at the end of the game. Let’s play the game!”

3. Before you begin, discuss some ground “rules” for playing the game. Say, “Every time you hear me say “garden,” we need to be quiet and listen carefully. If there is too much noise during the game, we won’t be able to continue and may cause us to lose a crop. Everyone must work together on the garden to achieve the best results.”
4. Place five **Crop cards** in the center of the circle on the ground for all of the students to see. Say, “The cards on the ground are the crops growing in our garden.”

5. **Explain the Friends of the Garden (green tops) cards.** Say, “These cards have friends of the garden that will help prevent pests from eating the crops in our garden. We will begin the game with one **Friend of the Garden card.** Draw one **Friend of the Garden card and place it on the ground in the center for everyone to see.”

6. **Set the remaining Friends of Garden cards aside to be shuffled later with the Invasion cards.**

7. **Explain the Invasion cards (yellow tops) to students.** Hold up an **Invasion card** to explain the card to students. Say, “The **Invasion cards** have a pest that visits the garden to eat or harm some of the crops. The **Invasion card** also lists helpful garden friends that will prevent the pest from eating the crops. These helpful friends are listed in the gray box on the card. If we don’t have one of the helpful friends listed on the card, then the garden will lose one crop.”

8. **Shuffle the extra Friends of the Garden cards and the Invasion cards** into one pile that you will use to draw from after reading the scenarios.

9. **Explain that there will be different types of scenarios** read aloud to the class. Say, “**Scenario cards will be read aloud and will provide scenarios of the many visitors who enter the garden. These cards will let you know when to draw from the Garden Friends and Pests cards.** Depending on the card drawn, you may lose a crop, gain a crop, or apply the **Friends of the Garden card.**

10. Before you begin reading the **first scenario** say, “**Remember we are all farmers responsible for growing fruits and vegetables in the garden. The goal is to have as many crops as possible to harvest at the end of the game.**”

11. **Begin by reading the Introduction Scenario Card.** Then, work your way through each scenario in order from the **Introduction** to the **Conclusion** card. As you read each scenario, have students pretend like they’re doing the action described on the card. For example, have students pretend they are watering plants when reading **Scenario Card #1**.

12. **The game will end once all scenario cards have been read.** At the end, ask which groups had one crop remaining, how about two, did any have three crops remaining? Ask students how many garden friends they have remaining in their garden. Remind students that the goal of a gardener is growing food for their family and possibly others in the community. Garden friends can increase the success in the garden by reducing the pest populations.

**Grades 2-4:**

1. **Explain the activity.** Say, “Today we are going to play a game. There will be six groups and each group will be responsible for their own pretend garden. Each team will be given five crop cards. These crops will represent the plants in the garden. The groups may lose crops depending on the scenario and the **Garden Friends and Pests cards** you draw. The goal is to have crops available to harvest at the end of the game. Let’s play the game!”

2. **Divide students into six groups.** Before you begin, discuss some ground “rules” for playing the game. Say, “Every time you hear me say "garden," we need to be quiet and listen carefully. If there is too much noise during the game, we won’t be able to continue and the group who is talking may lose a crop. Everyone must work together on the garden to achieve the best results.”

3. **Distribute five Crop cards to each group.** Say, “The cards I’m passing out will be the crops growing in your garden. Lay the cards out in the middle of the table so all of your group members can see them.” Provide a few minutes for students to review the cards.

4. **Explain the Friends of the Garden cards.** Say, “These cards have friends of the garden that will help prevent pests from eating the crops in the garden. Each group will draw two cards. As a group, you will decide which card to begin the game with. You will begin with only one. The remaining cards will be shuffled in with the **Invasion cards** for a chance to draw later.” If a group has trouble deciding, shuffle the cards and have a group member draw which one to keep. Remind the groups these are all positive choices!

5. **Collect the remaining Friends of Garden cards** and set aside to be shuffled later with the **Invasion cards.**

6. **Explain the Invasion cards to students.** Say, “The **Invasion cards** have a pest that visits the garden to harm some of the crops. The **Invasion card** lists helpful garden friends that will prevent the pest from eating the crops. If the group doesn’t have one of the **Friends of the Garden cards** that is listed on the pest card, then the garden will lose one crop as directed in the gray box on the card.”

7. **Shuffle the extra Friends of the Garden cards and the Invasion cards** into one pile that you will use to draw from after reading the scenarios.

8. **Explain that there will be different types of scenarios** read aloud to the class. Say, “**Scenario cards will be read aloud and will provide scenarios of the many visitors who enter the garden. These cards will let you know when to draw from the Garden Friends and Pests cards.** Depending on the card drawn, you may lose a crop, gain a crop, or apply the **Friends of the Garden card** to combat a pest or have nothing happen. When a **Friends of the Garden card** is used, both the **Friends of the Garden card and the Invasion card must be discarded.** This represents the organisms visiting and departing the garden throughout the growing season.” If a group loses a crop, it will need to be discarded. Decide...
beforehand how you will have students place the discarded cards; you can have them place them in a pile, bring them to the front of the class, or hold them in the air for you to gather. Remind students it will be important to listen carefully as each scenario is read.

9. Before you begin reading the first scenario say, "Remember we are all farmers responsible for growing fruits and vegetables in the garden. The goal is to have as many crops as possible to harvest at the end of the game."

10. Begin by reading the Introduction Scenario Card on the top of the deck labeled with a number one and work your way through each scenario in order from the Introduction to the Conclusion card.

11. The game will end once all scenario cards have been read. At the end, ask which groups had one crop remaining, how about two, did any have three crops remaining? Ask students how many garden friends they have remaining in their garden. Remind students that the goal of a gardener is growing food for your family and possibly others in the community. Garden friends can increase the success in your garden by reducing the pest populations.

Wrap-Up

5 minutes

1. When the activity is complete, gather the cards and ask the students to return to their seats (or the carpet) and talk about the activity and what they learned. Here are some questions to lead the discussion:
   a. What are the steps to plant a garden?
   b. What are some examples of beneficial friends in the garden?
   c. Give some examples of the pests that visit the garden. What are ways to reduce those pests? Have students give specific examples from the game or book.

2. When the discussion draws to a close (or when time runs out), distribute bookmarks to the students or leave them with the teacher. Tell the students that this bookmark will help them remember what they learned today.

3. Review the 6’F of Oregon Agriculture if time allows.

4. Thank the teacher and students for sharing their time to learn about agriculture.

5. Leave the book and the contents of the “Teacher Packet” for the classroom’s library and collect all other supplies to reuse in another classroom. Once completed, you can return the materials to Oregon AITC for other volunteers to reuse.

READING TIPS

- **Have fun!** Enjoy this wonderful experience of reading aloud and teaching children.
- **Practice!** Prepare by reading the book aloud before you get to the classroom. Also, review the activity materials and practice presenting it to someone else. Practicing will help ensure you have time to read the story, talk about key points and complete the activity within the allotted time.
- **Location, location, location.** Make sure all the students can see the book and hear your voice so they will be good listeners. You may need to move around the room as you read!
- **Introduce the book.** Read the title and names of the author and illustrator. Show excitement!
- **Invite students to look and listen while you read.** One of the best parts of books are the pictures. Have students identify items in the pictures, particularly illustrations that pertain to the message in the story.
- **Move the book around as you read.** Either while reading, or after reading each page, move the book so each student can see the great illustrations. This is especially important for younger grades.
- **Pay very close attention to the children.** Pacing is critical. Move along fast enough to maintain their interest and attention, but slow enough for all students to thoroughly enjoy the story. Modulate your voice to emphasize key points.
- **Ending the story.** When the story is over, often the students are finished, too. So, when you share or reflect on the book, keep it short and to the point. End while the students are still engaged.