

## **A Taste of Project Food, Land & People**

FLP envisions a future in which all people recognize the interdependence of agriculture, the environment, and human needs and work cooperatively to enhance sustainable, agricultural practices and informed consumer choices.

*Resources for Learning* is a collection of 55 Pre-K through 12th grade lesson plans for use in either a formal or non-formal education setting. This educational resource includes background information for teacher preparation, activities, student pages, and expanded resource materials to help apply natural resource, agricultural and environmental concepts to classrooms.

We invite you to become part of the FLP education network. Contact your state coordinator or the program headquarters for more information.

**Elmer Eckart, State Coordinator**  
**California Food, Land & People**  
**1570 Brandywine Road**  
**San Mateo, CA 94402**  
Phone: 650 345-5178  
E-mail: [eeckart@aol.com](mailto:eeckart@aol.com)

**[www.foodlandpeople.org](http://www.foodlandpeople.org)**



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# Seasons Through the Year

**LEVEL:** Grades PreK-6

**SUBJECTS:** Language Arts, Science, Social Studies

**SKILLS:** Classifying, communicating, comparing similarities and differences, constructing media, cooperating, describing, developing vocabulary, discussing, drawing, identifying, listening, matching, observing, perceiving spatial relations, reading, sequencing, sorting, writing

## MATERIALS

List of birth dates of students; calendar (12 months); four skeins of yarn, each a different color; map of North America; world map; four different color cards with a season name printed on each: spring, summer, fall, winter; drawing materials, scissors, and stapler; butcher paper; library picture books about seasons in agricultural and urban areas. **Optional:** a year's worth of magazines.

## VOCABULARY

Climate, cycle, depend, dormant, equinox, graze, harvest, hibernate, migration, season, solstice, weather.

## SUPPORTING INFORMATION

Each season brings changes for people, animals, and plants. Officially, the beginning and end of each season is based on the tilt of Earth's axis in relation to the sun. The dates for the beginning of each season change yearly by two or three days.

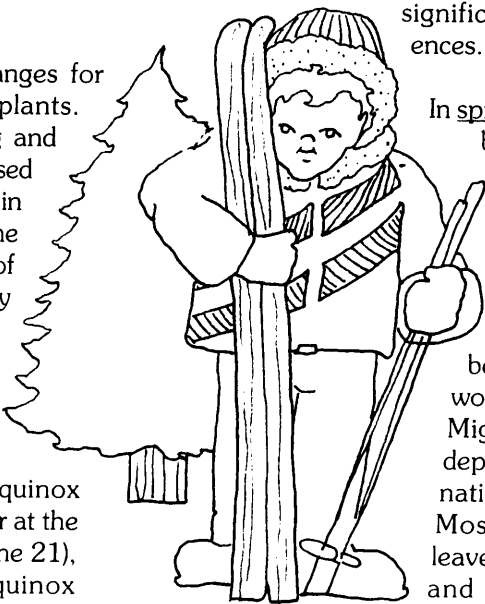
In the Northern Hemisphere where the United States lies, spring begins at the spring (vernal) equinox (about March 21), summer at the summer solstice (about June 21), fall at the autumnal equinox (about September 21), and winter at the winter solstice (about December 21).

In the Southern Hemisphere, however, the seasons are reversed. In Australia spring begins at what is our autumnal equinox (about September 21), summer at our winter solstice (about December 21), fall at our

spring equinox (about March 21), and winter at our summer solstice (about June 21).

Equinoxes are the times at which the sun crosses the equator. Equinox comes from a Latin word meaning *equal night*. The hours of sunlight and darkness are equal throughout the world. Solstices are the points at which the sun is farthest from the equator. The winter solstice is the shortest day of the year, and the summer solstice is the longest day of the year.

Each area of the world has its own seasonal differences. The following information describes changes in areas of North America in which there are significant seasonal differences.



In spring the hours of light begin to outnumber the hours of dark. Snow melts and flooding can occur. Days get warmer. The soil begins to warm. Soon plants begin to grow. The world is fresh and green. Migrating birds either depart or return. Hibernating animals awake. Most trees grow new leaves. Insects appear and flowers bloom. Farmers prepare the fields

and plant seeds. Many animals are born in the spring. Farm animals like cows and horses can graze outdoors. Spring brings strawberries, asparagus, and leeks. Violets, tulips, daffodils, iris, and dandelions are blooming. People take off storm windows and get out their warm-weather clothes. Spring sports start.

## BRIEF DESCRIPTION

To build awareness of seasonal change, students use their own birth dates, a comparison of seasons in different settings, and self-made books.

## OBJECTIVES

(Note: All three objectives are appropriate for older students; younger students may accomplish only the first two objectives.)

The student will

- Name the seasons in "cycle" order
- Identify the season in which his or her birth date occurs and describe a seasonal characteristic of the day
- Describe at least three things that occur in each season in an agricultural area, in their own community, and in an urban area

## ESTIMATED TEACHING TIME

Session one, 45 minutes; sessions two to five, 30 to 45 minutes each. The most variable time will be when students make their books.

tie the end of the yarn to a new color of yarn. Then have the student with the birth date nearest June 21 roll the new skein of yarn to someone with the birth date nearest (but following) September 21. Cut the yarn and tie a new color to the end. The student with the birth date near September 21 rolls the yarn to the student whose birth date is nearest (but following) December 21. Tie the end of the yarn to a different color of yarn. The student with the birth date nearest December 21 rolls the yarn to the first student. Tie the ends together. The circle is now divided into four sections.

With older students, discuss that the points where the yarn is tied together are the equinoxes and the solstices and identify them.

4. Hold up the four season signs, one at a time. Have students with birth dates in that season raise their hands. That should be one section, but some students may need clarification about the season of their birth dates. The sign is then placed in their section of the circle.

(Note: For this lesson, use the "official" season change dates of the current year to decide where a particular student belongs - generally March 21, June 21, September 21, and December 21. [Consult a current calendar or almanac.]) If a student's birth date falls on the 20 through 23 of these months, explain that the birth date shares two seasons! Some years it will be in one, some years another, depending on where the sun and Earth are in the season-changing positions.

5. Discuss the four seasons, one at a time, starting with the current season. Have students tell about the weather, plants, foods, flowers, and celebrations or holidays that appear near their birth dates. (For a partial list of celebrations and holidays see **Celebrations Through the Year** located in the Appendixes.) Direct the questions for each season to the students sitting in that section. Add to the information students contribute through sharing the Supporting Information and using your own community examples of seasonal change. Under the headings spring, summer, fall, and winter sketch or write key words in a visible place as students contribute ideas. Ask

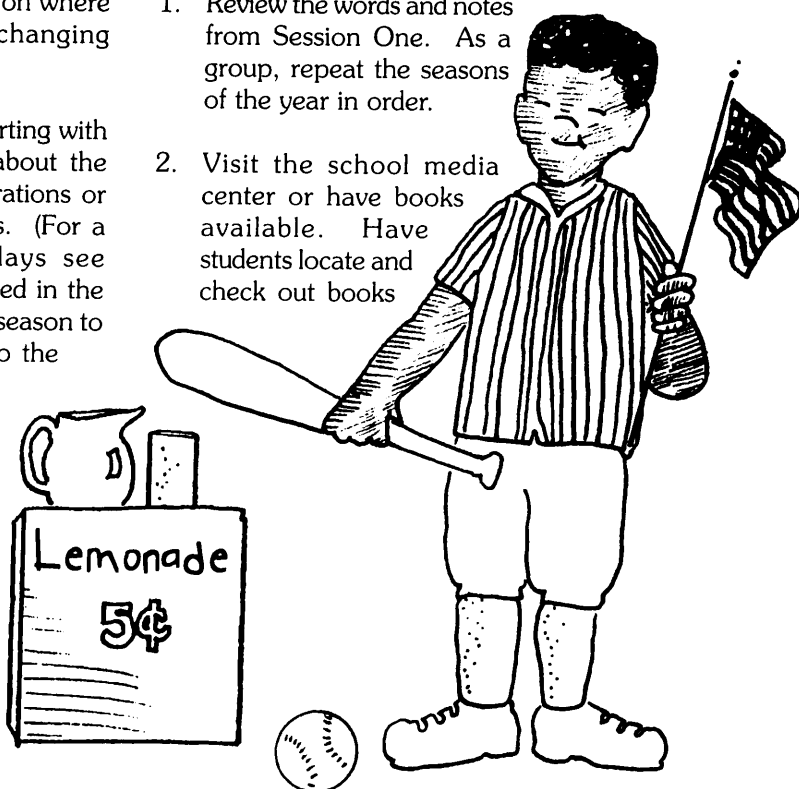
- What season is it now?
- What months on the calendar come in this season?

- What are some words you could use to describe this season? (*Hot, muggy, windy, grass growing.*)
- What is the weather usually like in this season? On your birth date?
- What kinds of clothes do people wear to be comfortable in this season?
- What colors do you think of for this season?
- What are some things people do in this season that they might not do other times of the year?
- What do you like to do in this season for fun?
- What are animals doing in this season?
- What is happening to plants in this season?
- What special foods do we have during this season?

6. Proceed through the entire seasonal circle in order, asking similar questions to each group. Refer to the North America map and discuss regions that have colder and warmer climates. Bring in the vocabulary words as they fit each season. Leave the seasonal words and notes in a visible place for the next session.

## SESSION TWO

1. Review the words and notes from Session One. As a group, repeat the seasons of the year in order.
2. Visit the school media center or have books available. Have students locate and check out books



- Encourage students to make a separate cover for their books.

(Note: Another time, you may want to make a 16-page book. Now you know how: just cut open the folds connecting the pages!)

3. Students write and illustrate their books with pages representing each season's unique offerings. Two pages are available to show each season.
4. Ask students to imagine and draw in their books how they could spend their birth date in agricultural and urban areas.

### EVALUATION OPTIONS

1. Use the student books for evaluation. Observe in which order the seasons are listed as well as how accurately students match ideas to the appropriate season.
2. Give students one season and have them name the following seasons in order. In what season is your birth date?
3. Have students divide a piece of paper into four sections. Label each section a different season. In each section, have them draw a person dressed in clothes appropriate for the season, list or draw three foods associated with the season, and list or draw one plant harvested in the season.
4. Have students write the four seasons and list three things they might see during each season in an agricultural area, in their community, and in an urban area.

### EXTENSIONS AND VARIATIONS

1. Make one class season book together. The class writes the book as a group and various students illustrate the pages. Another option is to have students make posters. Start with a square, rectangle, or circle divided into fourths. They use one fourth to illustrate each season.
2. Students research and describe the seasonal changes of just one crop or animal of their choice through writing or drawing. Put their work on display so everyone's knowledge can be shared.
3. Investigate the seasons, people, and plants in the Southern Hemisphere. Have students contrast the

seasons of the Northern and the Southern Hemispheres. Use maps and globes to locate the countries and continents. If you have access to a computer have students contact students in another country in the Southern Hemisphere.

4. Each student draws a picture that represents a season. They label each with the name of the season and show many activities and things that are appropriate to the season. Here's the "surprise!" The picture should also include three things that do not belong with that season. When all the pictures are finished, have students trade papers and identify what does not belong in their partners' pictures.
5. Make Venn diagrams for each season out of four colored poster papers. Label the circles "agricultural area" and "urban area." Label the overlapping part of the circles "both." Students fill in the appropriate part of the Venn diagram with events and activities for each season. (See **Venn Diagram** in the Appendixes for information and an example.)
6. Students work in their season birth date groups to create Seasons Around the World books. Encourage them to gather information using books and computers.
7. Students cut out pictures of farm equipment and match them with the season during which they are used. For example, planter in spring, cultivator in summer, combine in fall.
8. Listen to *The Four Seasons* by Antonio Vivaldi. Discuss the environmental events suggested by the music. Choose one movement from the piece and dramatize things that animals, plants, and/or people do during this season.
9. Students research the history of daylight savings time. Have them consider such things as when and why it began in the United States, why changes were made in 1942-1945 and again in 1974 and 1975, and why some states do not have daylight savings time.

### RESOURCES

Allington, Richard L. *Spring. Summer. Autumn. Winter.* Each seasonal book is published by Raintree Childrens Books, 1981.

Fowler, Allan. *How Do You Know It's Spring?* (1991) *How Do You Know It's Summer?* (1992) *How Do You Know It's Fall?* (1992) *How Do You Know It's Winter?* (1991) Childrens Press.

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## PROJECT FOOD, LAND & PEOPLE (FLP)

### BRIEF DESCRIPTIONS OF LESSONS

<u>Page</u>	
1	1. <b>The Plant and Me</b> (PreK-3) By discussing, observing, and role-playing, students learn that plants and people have similar needs for survival. --
5	2. <b>Seed Surprises</b> (PreK-3) By sorting and planting seeds, students discover seeds come in a variety of sizes, shapes and colors, as well as produce plants.
9	3. <b>Chewsy Choices</b> (PreK-4) Students learn about the five food groups through the use of puppets and their participation in a play about dinner at Rachel and Brian's house.
27	4. <b>Fruits and Veggies</b> (PreK-4) Students identify and compare fruits and other edible plant parts through a fast-paced game.
35	5. <b>School Ground Caretakers</b> (PreK-4) Students observe and collect items on the school ground, choose their own special place, and work with school groundskeepers to be respectful caretakers of their outdoor environment.
43	6. <b>Let's Celebrate!</b> (PreK-6) Students explore the role of celebrations in their own lives and in the lives of others and the important foods involved in those celebrations, with a focus on corn.
53	7. <b>Seasons Through the Year</b> (PreK-6) To build awareness of seasonal change, students use their own birth dates, a comparison of seasons in different settings, and self-made books.
61	8. <b>Tomatoes to Ketchup, Chickens to Omelettes</b> (PreK-6) Students build connections between raw and processed food items by cutting out pictures, matching pictures, and making collages.
71	9. <b>We're Into Pumpkins</b> (PreK-6) Through hands-on, interdisciplinary activities, students learn about pumpkins as fruits and as food sources.
81	10. <b>Don't Use It All Up!</b> (PreK-12) Students participate in a sponge demonstration to discover that people are consumers of resources and explore methods of conserving those resources.
91	11. <b>Germ Busters</b> (PreK-12) Through a controlled experiment, students learn one way bacteria can be spread and the importance of hand washing for personal hygiene and food safety.
103	12. <b>Lunchtime Favorites</b> (PreK-12) Students trace the sources of their food from lunch to learn the interdependence of plants, animals and people. They explore the importance of eating a variety of foods from plants and animals and discover how culture influences food choices.
113	13. <b>Trash Bashing</b> (1-12) By conducting a small group sorting activity, students learn the importance of reducing, reusing, and recycling solid waste. Students then develop plans to change personal behaviors.
125	14. <b>Root, Root for Life</b> (2-6) Students discover the importance of roots to plants, soil and people during hands-on learning-station activities.
139	15. <b>Buzzy, Buzzy Bee</b> (2-7) Students play a game in which they pretend to be honeybees and apple trees. In the process, they learn about plant pollination.
149	16. <b>From Apple Cores to Healthy Soil</b> (2-8) A composting experiment reveals to students how soil organisms, temperature, air, and water are able to decompose organic waste and enrich soil.
161	17. <b>Perc Through the Pores</b> (3-6) By pretending to become soil particles and water droplets, students simulate soil particle sizes and their pore space.

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**Page**

- 407 34. **Cleared for Takeoff** (4-12)  
Students learn about the important roles aviation plays in agriculture, as well as the requirements for a career in aviation.
- 421 35. **From Fiber to Fashion** (4-12)  
Students study clothing labels, research fabric production, and evaluate consumer options for their clothing.
- 435 36. **It All Starts with A** (4-12)  
Students conduct surveys to learn what agriculture provides to people. They organize, simplify, and communicate their findings using tallies, frequency tables, and histograms.
- 449 37. **Nail by Nail, Board by Board** (4-12)  
Students explore what shelters are made of, where building materials come from, and associated careers.
- 459 38. **Step by Step** (4-12)  
Students study the sequence of production to discover the resources required and the variety of careers involved to take a raw food from the farm to the consumer.
- 469 39. **What's the Shape of Your Diet?** (4-12)  
Students collect data on the foods they eat over a 24-hour period and compare their food consumption to the *Food Guide Pyramid* to determine if their food choices create a nutritionally sound diet.
- 487 40. **What Piece of the Pie?** (4-12)  
- Students explore the economics of consumer food products by analyzing who gets what portion of the price we pay for our food.
- 505 41. **Why I Buy** (4-12)  
In this lesson students are made aware of the external influences they receive when making purchasing decisions. After examining those influences, the students will conduct their own consumer preference trials. After collecting, graphing and analyzing the data, students decide which brand of a product they will purchase and why.
- 515 42. **Calorie Counting** (5-9)  
Students discover how their actual caloric intake compares with their caloric expenditure and ways in which their choices of food and activity can affect their energy balance.
- 531 43. **Global Grocery Bags** (5-12)  
Students learn why people around the world spend different percentages of their annual income on food.
- 551 44. **Soil Is Not Trivial** (5-12)  
Using facts about the Dust Bowl, students write questions and play a trivia activity focused around the establishment of a national soil conservation program and the importance of soil. Students then explore and/or develop a plan to address a local soil conservation issue.
- 567 45. **What Will the Land Support?** (5-12)  
Students play a board game to simulate changes in land use. They discover the effects of change on the carrying capacity of the land.
- 583 46. **Go, Go H<sub>2</sub>O** (6-8)  
Students design, describe, create, and experiment with an artificial system of moving water from a source to an area of need, as in irrigation.
- 597 47. **Mighty Macros** (6-12)  
Students conduct simple food experiments and collect data about their personal food choices to learn how the foods they eat satisfy the body's nutritional needs for macronutrients: carbohydrates, proteins and lipids.
- 617 48. **Loco for Cocoa** (6-12)  
Students discover how chocolate traveled the world by creating a time line and map, preparing and tasting chocolate as an Aztec drink, and playing a traditional Mexican rhythm game. Students learn how chocolate is produced from cacao, and where cacao is grown today. Students also use language to express their thoughts, feelings, and creativity about chocolate and its history.
- 635 49. **To Whom It May Concern** (6-12)  
After conducting research, students write a letter expressing their opinions about a controversial issue. Students either choose an issue or use the issue examples about the labeling of genetically engineered foods.



## California Food, Land & People

### Educational Materials Order Form

California Distribution  
Elmer Eckart, California Coordinator  
1570 Brandywine Road  
San Mateo, CA 94402  
Phone (650) 345-5178

(If ordered in California you will receive a  
Copy of correlations to CA State Standards)

National Distribution  
Doty & Rod Wenzel  
7023 Alhambra Drive  
Tallahassee, FL 32311  
Phone (850) 219-1175  
FEIN 84-1143575

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Name \_\_\_\_\_ Phone # \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

\_\_\_\_ Resources for Learning 2<sup>nd</sup> Ed. (55-shrink-wrapped lessons) @ \$ 56.25 \$ \_\_\_\_\_

\_\_\_\_ Resources for Learning 2<sup>nd</sup> Ed. (55 lessons in 3" D binder) @ \$ 75.00 \$ \_\_\_\_\_

\_\_\_\_ CD Resource for Learning 2nd Ed. @ \$ 45.00 \$ \_\_\_\_\_

\_\_\_\_ CD Eat Well, Be Well (new) (Nine Lessons about Nutrition) @ \$ 33.75 \$ \_\_\_\_\_

\_\_\_\_ 'Natural Resources We Use' (North America map to complement  
FLP 'Sea to Shining Sea' lesson w/copy of lesson) Folded poster@\$ 5.00 \$ \_\_\_\_\_

**TOTAL (Shipping & Handling included)**

**TOTAL \$ \_\_\_\_\_**

\_\_\_\_ Check enclosed \$ \_\_\_\_\_ **PO#** \_\_\_\_\_

\_\_\_\_ Credit Card **(Billed Thru Paypal):** (Circle) **Visa Mastercard**

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Additional materials check at [www.foodlandandpeople.org](http://www.foodlandandpeople.org) to order FLP materials available  
as digital downloads



# California FLP – “Make and Take”

**Small Seasons Book** (folding, one cut and no staples)

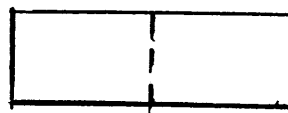
Use 8 ½" X 11" or 9" X 14" white paper

Fold Paper in half – “hot dog fold”

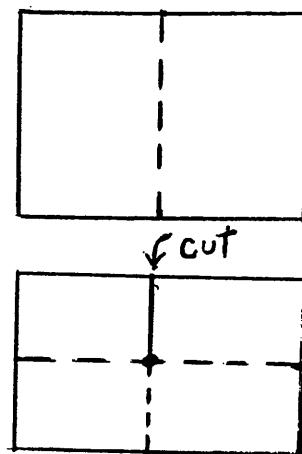


Open and fold in half the other way – “hamburger fold”

Fold paper again - “hot dog fold”



Open to “hamburger fold” and cut from center to fold line

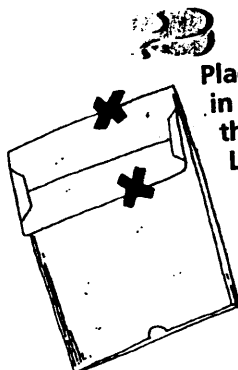


Open entire sheet so there is a diamond cut in the center,  
Fold into an eight page book. Decorate for “Seasons”

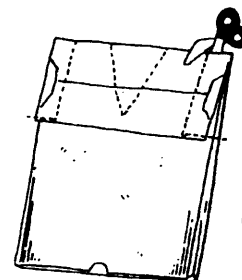


**Grocery Bag – Ag Vest**

1  
Fold grocery bag flat.  
Place opening of bag  
toward you. Face bot-  
tom of bag up.

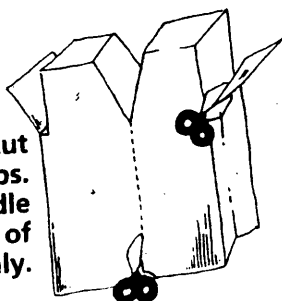


2  
Place a crease  
in the middle of  
the bag's bottom.  
Lift bottom of  
flap up and  
fold at crease  
so that points  
meet.



3  
Cut along  
dashed  
lines.

4  
Open Bag. Cut  
off extra flaps.  
Cut down middle  
of one side of  
vest only.



5  
Now you are ready  
to decorate and  
wear your vest.

