Exploring the Seasons

Summary

Activities will help students understand seasons and the changes they bring.

Group Size

Large Groups

Materials

Invitation to Learn Seasonal cutouts Chart paper Journal Pencil Class Season Chart Poster Board A Tree for All Seasons Season Journals

- Around the Year
- My Season Journal
- Tree Outline
- Writing Page

Any of the materials that you may want to use in the Season Journals Seasons vs. Months vs. Holidays

- 12 gift bags
- Holiday Pictures

4 seasons boxes Additional Resources

Books

A Busy Year, by Leo Lionni; ISBN 0-590-47273-9 A Tree for all Seasons (National Geographic) by Robin Bernard; ISBN 0-7922-9435-1 A Time to Keep, by Tasha Tudor; ISBN 0689811624 Around the Year, by Tasha Tudor; ISBN 0689873506

Caps, Hats, Socks, and Mittens: A Book about the Four Seasons, by Louise Borden; ISBN 0- 590-44872-2

Four Puppies, by Anne Heathers; ISBN 0-307-59753-9 I Can Read About Seasons, by Robyn Supraner; ISBN 0-8167-4719-9 Let's Look at the Seasons: Summertime, by Ann Schweninger; ISBN 0-590-616746-X My Favorite Time of Year, by Susan Pearson; ISBN 0-590-46353-5 Science Around the Year, by Janice VanCleave; ISBN 0-439-27535-0 Season Song, by Marcy Barack; ISBN 0-439-50323-X

Background for Teachers

One of the most common misconceptions about the seasons is the idea that the seasons are a result of the varying distance of Earth from the Sun throughout the year. An easy way to see that this idea is incorrect is to remember that when it is summer in the Northern Hemisphere, it is winter in the Southern Hemisphere. The main cause of the seasons is due to the 23.5-degree tilt of Earth's rotation axis. As Earth goes around the sun, at times the Northern hemisphere is oriented more towards the sun, and at other times it is farther from the sun. When the Northern Hemisphere is oriented more towards the sun, we have our spring and summer seasons. As Earth continues to move on its revolution around the sun and the Northern Hemisphere begins to orient away from the sun, we have our autumn and winter seasons. The opposite is true for the Southern Hemisphere.

In the Northern Hemisphere, the Autumnal Equinox (a day when day and night are of equal length) occurs on or about September 21, marking the official start of autumn. Winter officially begins with the Winter Solstice, which occurs on or about December 22 of each year. This is also the shortest day of the year. The Vernal Equinox occurs on or about March 21, marking the first day of spring and another day and night of equal time. Summer officially begins on or about June 21, which is the longest day of the year and makes the Summer Solstice.

Additionally, it is often common for students to mix up seasons, months, and holidays. We want to help them begin to understand that the holidays occur in the months and that months occur in the seasons. This lesson plan can be used over the course of a school year, covering one month's seasonal activities at a time, or as an inclusive unit completed over the course of several weeks.

Intended Learning Outcomes

1. Demonstrate a positive learning attitude.

6. Communicate clearly in oral, artistic, written, and nonverbal form.

Instructional Procedures

Invitation to Learn

Provide the students with paper cutouts that represent the four seasons (e.g., a leaf for autumn, a snowflake for winter, a flower for spring, and a sun for summer.) Divide chart paper into four sections labeled autumn, winter, spring, and summer. Have each student choose which season is his/her favorite by placing a cutout in the corresponding section on the chart paper. Allow students to talk about why they chose the seasons that they did. Some students may say "fall" for "autumn." Teach them that these words can be used interchangeably. Have students write in their classroom journals what their favorite season is and why. Write down some of their responses on chart paper for later reference.

Instructional Procedures

Class Season Chart

Read *A Tree for All Seasons*. Discuss the different seasons that occur in the story and the different types of activities that were shown in the book.

Discuss with students the different months of the year and what months belongs to each season. Have students help decide what month belongs in what season. Pose questions about the months and the seasons. For example, July is a summer month. How does it vary from January, which is a winter month?

Create a Season Chart. Divide a piece of poster board into four equal sections. Label one section summer, one autumn, one spring, and one winter. In the appropriate section, write the months that fit in that season. For most of the Utah area, the weather seems to dictate that the months fit into the seasons in the following way: winter: December, January, February; spring: March, April, May; summer: June, July, August; autumn: September, October, and November. However, according to the official dates of the seasons (in accordance to summer and winter solstices and the vernal and autumnal equinox dates), it goes as follows: winter: January, February, February, March; spring: April, May, June; summer: July, August, September; and autumn: October, November, December. Because kindergarten students tend to follow the rule of "what you see is what you get," you may want to adjust the months in the seasons for what works best for the area in which you teach. However, you should let your students know the first "official day" of each season.

Teach students the Seasons and Months song (to the tune of *The Farmer in the Dell*): Season and Months In the summer it is hot In the summer it is hot June, July, and August In the summer it is hot. In autumn the leaves fall In autumn the leaves fall September, October, November In autumn the leaves fall. In the winter it is cold In the winter it is cold December, January, February In the winter it is cold. In spring new things grow In spring new things grow March, April, and May In spring new things grow. As a class, discuss the various attributes of each season and write several key seasonal words in each corresponding section on the Season Chart. For example, for summer, some words

could be "hot," "sunny," "dry," and "longer days." For autumn some examples are, "cooler days", "leaves changing colors," and "harvest time." Descriptive winter words could be "cold," "snowy," and "longer nights." Examples for spring are "snow melting," "new things growing," "new buds and flowers."

Keep the Season Chart for use with the Season Journals that the students will be making. Season Journals

Read *Around the Year.* Lead a class discussion about the different types of activities that the children in the book participate in each month and what season it is.

Tell the students that they will be making a Season Journal about all the different months of the year and the types of seasonal activities that they can do each month.

Have students color the cover page of the My Season Journal.

Show students the *Tree Outline* page and the *Writing Page* for the *My Season Journal*. For each month, they will be adding their own drawings to the *Tree Outline* page. First, they will need to color/decorate the outline of the tree appropriately for that month's season (e.g. in July the tree has leaves). Then, they will need to draw pictures of themselves (and/or friends and family) by the tree doing appropriate seasonal activities for that month.

Show students the *Writing Page*. Explain that they will be able to write a sentence or two about each month. Then, all those pages for each month will go into a *My Season Journal* that they will be able to take home and share with their families. When writing the sentences, take the students' writing abilities into consideration. Students who are able to write with just a little help (or independently) should be encouraged to do so. However, those who need assistance should be allowed to participate in a class sentence about each month. For each month in the *My Season Journal*, class discussion should take place in order to decide what sentence(s) will be written for that month. For example, write down several sentence ideas and then, as a class, decide what will be written. Sound the words out as a class and discuss sentence structure. Students can write with the teacher or write independently. Always have students write the name of the month in the rectangular space on top of the *Writing Page*.

Following are some ideas for the *Tree Outline* for each month. There are some ideas of how to decorate the tree with a variety of objects. You do not need to follow those ideas, you can have

the students just color the *Tree Outline* if you would like. If you do choose to use the additional items, remember to gather together any of the items that you will need to use. Adjust as needed with your class. Remember to discuss which months belong to each season (refer to Season Chart) and discuss appropriate seasonal activities.

a. January--winter. The tree is dormant. There is snow on the ground and some piled in the tree. Use cotton balls for the snow. Students can draw a picture of themselves building a snowman, sledding, ice-skating, etc.

b. February--winter. There is still snow on the ground. Use white paint for the snow. Draw a bird feeder on the tree and discuss helping animals during the winter. Students can draw a picture of themselves putting the bird feeder on the tree. You can make pinecone birdfeeders (see Instructional Procedure number 9) as a class for the students to take home and hang on trees in their own yards.

c. March--spring. Maybe a patch or two of snow is left, but it is mostly gone. There are some leaf buds just starting to form on the tree. Use dried split peas for the buds. Students can draw a picture of themselves flying a kite.

d. April--spring. There are now blossoms on the tree as well as small green leaves. Use tissue paper for the blossoms and the leaves. Flower-shaped beads could also be used. Students can draw a picture of themselves having an egg hunt.

e. May--spring. Leaves are bigger now. Birds are building a nest in the tree. There are flowers growing by the side of the tree. Students can draw pictures of themselves picking the flowers. Use watercolors to paint the flowers.

f. June--summer. There are baby birds in the nest in the tree. The parent birds are flying around. The leaves on the tree are now a dark green. Use green-colored masking tape, green foam, or green felt for the leaves. Students can draw a picture of themselves blowing bubbles.

g. July--summer. There are still dark green leaves on the tree. The baby birds are flying, too. Students can draw pictures of themselves playing with sparklers or watching fireworks. Use glitter glue for the sparklers and fireworks.

h. August--summer. Most of the leaves on the tree are still green, but there are a few that are changing color. Students can draw pictures of themselves watching the clouds. Use colored pencils or markers for the intense autumn colors.

i. September--autumn. Most of the leaves on the tree are now red, orange, or yellow. A few have started to fall to the ground. Tear pieces of colored paper as leaves. Students can draw pictures of themselves catching the bus to school.

j. October--autumn. Most of the leaves are on the ground. Some may be in piles. Students can draw pictures of themselves raking leaves or in their Halloween costumes. Sponge paint or watercolor the leaves.

k. November--autumn. There are no leaves left on the tree. There is a light dusting of snow or frost on the ground. Use boiled Epsom salt to create the frosty effect (see Instructional Procedure number 9). Students can draw their families driving to Grandma's house for Thanksgiving.

I. December--winter. Snow on the ground. Use sequins (or colored wrapping paper) and green string to decorate the tree with colored lights. Students can draw pictures of themselves caroling.

Here are some ideas for sentences for each month:

a. In January it is cold and snowy. We dress warmly to play in the snow.

- b. It is still cold in February. We can make birdfeeders to help feed the birds.
- c. Spring starts in March. The snow starts to melt and there are buds on the trees.
- d. Soon blossoms will begin to grow on the tree in April.
- e. In May, the flowers are starting to grow. Everything is new and green.

f. In June there are lots of leaves on the trees. It is starting to get warm.

g. In July it is hot and sunny. We can play outside. We can watch the fireworks.

h. It is still sunny in August. A few of the leaves are beginning to change color.

i. In September, lots of leaves are changing color. We get to go back to school.

j. In October, it is starting to get chilly. We need to dress warmly to go trick-or-treating.

k. In November there is often frost on the ground.

I. In December it snows. We can decorate for the holidays.

When all the pages are finished, assemble each child's pages into his/her Season Journal. Read the Journals with the class before sending the Journals home for the students to enjoy with their families.

Directions for Additional Activities in Instructional Procedure number 6:

a. Pinecone Birdfeeder: Have a pinecone available for each student. Tie about 8 to 12 inches of yarn or ribbon to the pinecone. Mix equal parts vegetable shortening, peanut butter, and oatmeal (or cornmeal) together. Spread the mixture over each pinecone. Roll pinecone in birdseed. Hang on a tree for the birds to enjoy. If students have peanut allergies, you can eliminate the peanut butter and just use the shortening.

b. Epsom Salt Painting: Boil together equal parts Epsom salt and water. Use it to "paint over" any dark paper or coloring. As it dries, it will leave a frosty look. You can also "paint" over the picture with water or watercolors and then sprinkle it with table salt.

Ask students again what their favorite season is and why. Have them write again in their classroom journals about their favorite season. Refer back to their responses that you wrote down earlier and see if their opinions about the seasons have changed now that they have learned more about the seasons.

Seasons vs. Months vs. Holidays

Have a set of the *Holiday Pictures* colored and laminated and ready to use. The bags should be sized so that three of them can fit into each box. Lunch bag sized works well. Clear 15 quart storage containers work well.

Show students the 12 bags labeled with the names of the months. Have the students help you arrange the bags in calendar order.

Ask students to tell you about their favorite holidays. What time of year contains their favorite holiday in?

Have students help you sort the Holiday Pictures into the correct coordinating month bag. If appropriate, review what you have already taught the students about each holiday as the students place the pictures into the bags.

Once all of the Holiday Pictures are in the correct month bags, refer back to the Season Chart and have students help you place the month bags into the correct boxes with the season names on them.

Review with students which holidays are in which months and which seasons.

Extensions

Curriculum Extensions/Adaptations/ Integration

Encourage students to write additional sentences for each month independently.

Have students read their Season Journals to each other or peer tutor buddies.

Family Connections

Ask parents to read over the Season Journals with their students and think of additional seasonal activities that they could do for each month.

Encourage students to do some of the activities that they wrote about with their families.

Observe and check students' writing and drawings for developmentally appropriate work.

Check students' work to see that the activities that they drew for each month correspond with the season.

Read students' responses that they write in their classroom journals. Check for developmentally appropriate writing skills.

Bibliography

Research Basis

Joshua, M., (2007). The Effects of Pictures and Prompts on the Writing of Students in Primary Grades: Action Research by Graduate Students at California State University, Northridge. *Action Teacher Education*. 29 (2) 80-93.

The researchers in this action research project wanted to examine the idea that when verbal writing prompts are accompanied by a coordinating picture, students will be more engaged in the process and therefore produce more writing containing more detail than the writing that they would produce without any visual aid. Quoting from the article, "Teachers can stimulate children to write by introducing children's literature and by relating writing to children's experiences. The teacher's role is to guide students in their topic development and to lead young writers to understand the purpose of the writing assignment and the intended audience." The researchers found that when the kindergarten students were given a verbal prompt and a visual aid, their writing quality and the number of words (and/or letters) both improved. Those at the earliest stage of emergent writing improved the most. This was particularly true for English Language Learners. Because of the limited experience of kindergarten students, visual aids appeared to provide concrete examples and therefore assisted them with their writing.

Furuness, L.B., Cohen, M.R. (1989). Children's Conception of the Seasons: A Comparison of Three Interview Techniques. *Presented at the Annual Meeting of the National Association for Research in Science Teaching*. San Francisco, CA. 2-11. <u>ERIC.com</u>

The authors of this paper studied and compiled research from several different sources. They discussed the idea that a child's thought process has two domains of knowledge labeled "life-world knowledge" (based on and developed from day-to-day experience) and "scientific knowledge" (created by school-centered teaching). A student's preconceived ideas of the world (e.g. the four seasons) will influence how he/she will assimilate the scientific concepts about the seasons that are taught in school. In order to successfully teach the student the correct ideas about the world around him/her (e.g., the seasons), educators must find a way to link the students existing ideas to the correct ones. Educators must take what the students already know (or what they think they know/assume) and build on it while simultaneously correcting any misconceptions.

Authors

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