

# A Time for All Seasons – Fall (Part II)

Grade Level: 2<sup>nd</sup> Grade

Written by: Jeri Bisbee and Jan Polzin, Lincoln Academy Charter School, Arvada, Colorado

Length of Unit: Four separate seasonal units; each one is five days in length

## I. ABSTRACT

This 2nd grade science unit expands on the concepts of seasons and the reason for them. Each of the four weeklong sub-units addresses the appropriate concepts as noted in the Core Knowledge Sequence, and reinforces basic concepts taught in Kindergarten. Included is a variety of rich literature and opportunities of learning for the auditory, visual and kinesthetic learner. Projects, demonstrations, plays, music, a series of observations, note-taking, writing, group discussions, and multiple assessments assist the teacher and the learner by fostering an increased level of understanding throughout the unit. *(Note: This is Part II of a IV-Part unit. Parts I & II are presented in 2002; Parts III & IV will be presented in 2003.)*

## II. OVERVIEW

### A. Concept Objectives

1. Students will understand that most things are in the process of change and that there are patterns to these changes. **(Jefferson County Science Standard 1.2)**
2. Students will understand the motion of the Earth in relation to the sun. **(Jefferson County Science Standard 4.4B)**
3. Students will recognize how our daily activities are affected by the weather. **(Jefferson County Science Standard 4.2B)**

### B. Content from the *Core Knowledge Sequence* Seasonal Cycles

1. The four seasons and Earth's orbit around the sun (one year)
2. Seasons and Life Processes
  - a. Spring: sprouting, sap flow in plants, mating and hatching
  - b. Summer: growth
  - c. Fall: ripening, migration
  - d. Winter: plant dormancy, animal hibernation

### C. Skill Objectives

1. Students will explain how the earth's revolution around the sun in 365 days and the fact its axis is tilted causes the seasons.
2. Students will demonstrate how the rotation of the earth on its axis in a 24-hour period causes day and night.
3. Students will identify how various animals change each season and the reasons for those changes.
4. Students will identify how plants change throughout each season and the reasons for those changes.
5. Students will investigate seasonal activities and discover why they are appropriate for that season.

## III. BACKGROUND KNOWLEDGE

### A. For Teachers

1. Branley, Franklyn M. *Sunshine Makes the Seasons*. New York: Harper Collins Publishers, 1985. ISBN: 0-690-04482-8

2. Burton, Jane and Taylor, Kim. *The Nature and Science of Summer/Autumn/Winter/Spring* (series). Milwaukee: Gareth Stevens Publishing, 1999. ISBN: 0-8368-2189-0  
ISBN: 0-8368-2190-4  
ISBN: 0-8368-2191-2  
ISBN: 0-8368-2188-2
  3. Gibbons, Gail. *The Reasons for the Seasons*. New York: Holiday House, 1995. ISBN 0-8234-1174-5
- B. For Students
1. Students need to be familiar with the four seasons, characteristic local weather patterns during the seasons, and the sun as a source of light and warmth from Core Knowledge Kindergarten Science.

#### IV. RESOURCES

**\*Note:** Items in **bold** are required for this unit. The others are recommended materials to support/enrich this unit.

- A. Ball, Jacqueline A. *What Can It Be? Riddles About the Seasons*. Englewood Cliffs: Silver Press, 1989. ISBN: 0-671-68582
- B. **Branley, Franklyn M. *Sunshine Makes the Seasons*. New York: Harper Collins Publishers, 1985. ISBN: 0-690-04482-8**
- C. **Burton, Jane and Taylor, Kim. *The Nature and Science of Autumn*. Milwaukee: Gareth Stevens, Inc., 1999. ISBN: 0-8368-2190-4**
- D. de Paola, Tomie. *Four Stories for Four Seasons*. New York: Prentice-Hall Books for Young Readers, 1977. ISBN: 0-13-330119-2
- E. Ehler, Lois. *Red Leaf, Yellow Leaf*. New York: Harcourt Brace & Co. 1991. ISBN: 0-15-266197-2
- F. Fowler, Allan. *How Do You Know It's Fall?*. Danbury: Children's Press, 1992. ISBN: 0-516-44992-2
- G. Gibbons, Gail. *The Reasons For Seasons*. New York: Holiday House, 1995. ISBN: 0-5234-1238-5
- H. **Hirschi, Ron. *Fall*. New York: Cobblehill Books, 1991. ISBN: 0-525-65053-9**
- I. **Maass, Robert. *When Autumn Comes*. New York, Scholastic, 1996. ISBN: 0-590-96825-4**
- J. **Maestro, Betsy. *Why Do Leaves Change Color?*. New York: Scholastic Inc., 1995. ISBN: 0-590-62154-8**
- K. McDonnell, Janet. *Animal Migration*. Chicago: Children's Press, 1989. ISBN: 0-516-06389-8
- L. Schnur, Steven. *Autumn An Alphabet Acrostic*. New York: Clarion Books, 1997. ISBN: 0-395-77043-2
- M. Venino, Suzanne. *What Happens in the Autumn*. National Geographic Society, 1983. ISBN: 0870444522
- N. Whitely, Ken, *All of the Seasons* (sound recording). Toronto: Pyramid Records
- O. Whitlock, Warren. *The Seasons Autumn*. New York: The Bookwright Press., 1987. ISBN: 0-531-18140-5

#### V. LESSONS

##### **Lesson One: Seasons - Fall**

- A. *Daily Objectives*

1. Concept Objective(s)
  - a. Students will understand that most things are in the process of change and that there are patterns to these changes.
  - b. Students will explain the motion of the Earth in relation to the sun.
  - c. Students will recognize how our daily activities are affected by the weather.
2. Lesson Content  
Fall – ripening, migration
3. Skill Objectives
  - a. Students will explain how the earth’s revolution around the sun in 365 days and the fact its axis is tilted causes the seasons.
  - b. Students will demonstrate how the rotation of the earth on its axis in a 24 hours period causes day and night.
  - c. Students will identify how various animals change each season and the reasons for those changes.
  - d. Students will identify how plants change throughout each season and the reasons for those changes.
  - e. Students will investigate seasonal activities and discover why they are appropriate for that season.

B. *Materials*

1. A large, fall colored leaf, cut from butcher paper to be displayed throughout the unit; 2 colored markers (day 1)
2. Globe (day 1)
3. lamp without shade (day 1)
4. Overhead of Appendix A (day 1); copies of Appendix A for each student (day 1)  
Earth in Fall
5. *Autumn* by Ralph Whitlock
6. 12x18” construction paper, folded in half for each student (day 1)
7. crayons for students (day 1)
8. Appendix B – one per student “My Fall Observations Log” (day 1)
9. *Autumn* by Ron Hirschi (day 2)
10. Play, “*Animal Seasons Presents Fall: A Time for Preparation*” – copies for each participant (Appendix H ) (day 2); props (from Summer unit)
11. Writing paper, one per student (day 2)
12. Copies of Appendix C; Squirrel Paper Bag project for each student (day 2)
13. Lunch size brown paper bags; 1 per student (day 2)
14. scissors & glue per student (day 2)
15. *The Nature and Science of Fall*, by Jane Burton and Ken Taylor (day 3)
16. *Reminders to the students to bring in leaves for day 3 activity*
17. Copies of Appendix D, Plants in Fall – one per student (day 3)
18. \*Appendix E– place class photo at the top of the page, and copy one for each student. Place in the folder for the Seasons Book at the end of the unit of study. (day 3)
19. 2 pieces of wax paper per student, cut into 9x12 pieces (day 3)
20. fall colored crayon shavings (use a hand-held pencil sharpener to make a baggie full) (day 3)
21. iron(s)/adult helpers (day 3)

22. construction paper frames, one per student, cut 12x9, with one inch 'frame' (meaning you will need to cut out the interior of the paper, leaving a one-inch frame) (day 3)
  23. Optional: 'dress up' for today – sweater, garden gloves, rake, a basket with corn, pumpkins, apples, representing *harvest* (day 4)
  24. *When Autumn Comes* by Robert Maass (day 4)
  25. pumpkins – one per group of 3-4 students (day 4)
  26. extra adult helpers (day 4)
  27. knives for carving/newspapers to cover desks (day 4)
  28. a variety of seeds (day 4)
  29. construction paper/glue per student (day 4)
  30. Appendix F1-F2 – Unit Test; one copy per student (day 5)
  31. \*Appendix G – “Fall Is...” one per student (day 5)
  32. \*Appendix I from summer unit – with fall colored construction paper - per student (day 5) – This page is carried into each seasonal unit for completion of that season’s tree – and will be added to the Season’s book at the close of the unit of study in spring)
  33. Glue (day 5)
- C. *Key Vocabulary*
1. *migration*: the periodic passage from one region to another for feeding or breeding

D. *Procedures/Activities*

Day 1– Earth in Fall

1. Prior to the unit, a *large* leaf should be cut from butcher paper to display for notes throughout the unit. Pose the question to the class, “What do you think of when you hear the word ‘fall’?” Write their responses with one color marker. You will be adding notes *learned* in another color throughout the unit.
2. Review what seasons are and why we have them. Recall the unit on summer and review concepts learned. “Remember from our unit on summer we learned what *causes* the change in season. Does anyone remember? How many hours are in a day? This is due to the earth’s *rotation* around the sun, which causes ...(? – day and night - review *rotation* and write definition on the board) The earth also *revolves* around the sun as it is *tilted on its axis*– which is what causes our seasons. (review *revolves* and *axis* and write the definition on the board)
3. Read pages 4-11 in *Autumn* by Ralph Whitlock
4. Review the earth/sun (globe/lamp) experiment. Explain that the earth is tilted on its *axis* (note definition on the board) and show how the globe is tilted at about a 23-degree angle as it rotates around the sun. This is the cause of the seasons – as it is due to the amount of direct sunlight given to the hemisphere that causes the changes we notice at different times of the year. Recall where it is that you live (in the *Northern Hemisphere*).
5. As you explain, again place a sticky note to draw students’ attention to where they live, ask which *hemisphere* (again, note definition) do we live in? As you rotate the globe around the sun, question the students as to what season it is. Ask what time of year do these seasonal changes take place? For Fall/Autumn, the earth’s location in its orbit around the sun, is now at its mid-point – causing this day (Sept. 21/22) to be equal in length of daylight/nighttime. After this date, the hours of nighttime increase, while the hours of daylight decrease. (Months of

- year, with actual dates of seasonal changes may be displayed in a bulletin board format or noted on the board, as an introduction to the unit.)
6. Draw students' attention to the fact that in fall/autumn, unlike in summer, the earth is neither tilted toward or away from the sun, therefore the sunlight is less direct, causing the temperatures to drop slightly, which will have an effect on a number of things in the world around us, as we will look at more closely throughout the week.
  7. Once students demonstrate an understanding of the concept, ask them, "What have we learned today?" Make notes of their responses on the "Fall Knowledge Chart" in a different colored marker.
  8. Using an overhead of Appendix A, review the seasonal cycles and the earth's tilt. Discuss that not all places on the earth have four seasons. (Those closer to the poles have only 2)
  9. Have students complete "Earth in Fall" worksheet (Appendix A)
  10. Hand out construction paper to each child. Fold in half and label the folder "Fall", and have them decorate the cover with their favorite activity of fall. Place the worksheet in the folder and collect.
  11. Send home the "Observations of Fall" log (Appendix B), to be completed and returned on day 5.

*Day 1: Evaluation and Assessment*

1. Worksheet/participation

Day 2 – Animals in Fall

1. Read Ron Hirschi's book, *Autumn*. Discuss the common thread of animals preparing for winter *throughout the book*.
2. Present the play, "*Animal Seasons Presents Fall: A Time for Preparation*" - assigning parts (props) to various students, as the teacher plays the part of Dr. Does-a-lot.
3. Pass out writing paper and have the students write 2-3 sentences on how the animal of their choice from the play changed and prepared for winter during this season.
4. Add "new information learned" to the Fall Observation Chart.
5. Read aloud pages 20-27 from the *Nature and Science of Autumn* (Burton and Taylor)
6. Make "Squirrel Paper Bag Puppets" (Appendix C)
7. Have students collect several fall leaves for day three's activity in their squirrel bags, and return the next day. (leaves need to be fresh, not dry/crunchy, and fairly small)

*Day 2: Evaluation and Assessment*

1. Assess Writing/Squirrel Bags

Day 3 – Plants in Fall

1. Read pages 6-13 in "*The Nature and Science of Autumn*", by Jane Burton and Ken Taylor.
2. Having chosen an outdoor area with a tree or bush to observe during each season, take the class to this area, and take a class photo – preferably with a digital camera if available. (Add photo to Appendix E, and collect in folder for the end of unit Seasons Book)
3. Have a discussion noting all the signs of fall around them – sights, smells, sounds – primarily of the plant life. Have students record their findings on Appendix D;

- Plants in Fall, and place in their folders. After returning to the classroom, have students get their leaves from their Squirrel Bags for today's activity.
4. Depending on how many irons/helpers you have available, you will want to have *stations* set up to assist the students in making their stained glass leaf windows.
    - a. First, lay a piece of 9x12 wax paper down. Have the students lay their leaves in their desired arrangement on the wax paper.
    - b. Second, with the crayon shavings, have them sprinkle a *small* amount around the leaves.
    - c. Next, place the 2<sup>nd</sup> piece of wax paper over top, and iron slowly, to melt the crayon shavings, thereby holding the pieces together.
    - d. Finally, have the student cover with a pre-cut construction paper frame, and glue in place. Attach a string, or simply tape directly to the windows in your classroom to enjoy!
  5. For students who are not presently engaged in the leaf-ironing activity, use an activity of your choice to fill in the free time.
  6. Add new knowledge to "Fall Observation Chart".

*Day 3: Evaluation and Assessment*

1. Notes/leaf window

Day 4: Activities of Fall

1. Brainstorm some of the children's favorite activities of fall– and note them on the board. (You may choose to 'dress up' for today – sweater, garden gloves, rake, a basket with corn, pumpkins, apples, etc. representing *harvest*)
2. Read, *When Autumn Comes* by Robert Maass.
3. Today's activity includes a favorite for this time of year! "How many of you enjoy carving pumpkins? Today we will work in groups of (3-4) to design and carve our pumpkins."
  - a. Based on the number of adult helpers you have available, groups may begin "carving" with their adult helpers – allowing the kids to draw their designs on.
  - b. You may choose to incorporate a math activity of *estimating* how many pumpkin seeds their pumpkins will have – and have them sort their seeds by 5's or 10's. (It's messy, so be prepared! ☺ Pictures of this are a *must* for the school yearbook!)
  - c. At the conclusion of their carving time, have students return to their desks and pass out seeds (in whatever variety you have) for creating a "seed picture". Have students create a design with a pencil/paper. Then, using glue/stick, have them sprinkle their choice of seeds over their design to complete their picture.
  - d. Add new knowledge learned to the "Fall Observation Chart".
  - e. You may choose to share some pumpkin cookies or bread to tie in with this unit.

*Day 4: Evaluation and Assessment*

1. Observations/participation

**VI. CULMINATING ACTIVITIES/TEST (Day 5)**

*(At the beginning of the day, or whenever you collect homework, be sure to get the "My Fall Observations' Log", to be graded as part of their overall score for this unit.)*

1. Have a class review prior to the test, reviewing all of the "prior knowledge" and "knowledge learned" during the unit from the Fall Observation Chart.
2. Hand out a copy of the Unit Test to each student. (Appendix F1-F2)

3. When students have completed their test, have them complete the “Fall Is...” poem, (Appendix G) using their creativity!
  4. Once the poem is completed, have them draw a fall tree, (Appendix I from folders), and some small pieces of fall colored construction paper for them to tear pieces off representing leaves, and gluing to their tree .
  5. Collect poem and tree and place in student season folder for compilation of book at the end of the unit of study.
- E. *Evaluation and Assessments:*
1. Unit Test – 100 points
  2. Fall Is... poem (Collect for “Seasons Book”)
  3. Fall tree - (Collect for “Seasons Book” at the end of the study of Seasons.)
  4. Teachers may choose to do a ‘unit’ grade in addition to the test, based on the appendices graded.

## VII. STUDENT WORKSHEETS/HANDOUTS

See Appendices A - H

## VIII. BIBLIOGRAPHY

- A. Burton, Jane and Taylor, Kim. *The Nature and Science of Autumn*. Milwaukee:: Gareth Stevens, Inc., 1999. ISBN: 0-8368-2190-4
- B. de Paola, Tomie. *Four Stories for Four Seasons*. New York: Prentice-Hall Books for Young Readers, 1977. ISBN: 0-13-330119-2
- C. Ehler, Lois. *Red Leaf, Yellow Leaf*. New York: Harcourt Brace & Co. 1991. ISBN: 0-15-266197-2
- D. Fowler, Allan. *How Do You Know It's Fall?*. Danbury: Children's Press, 1992. ISBN: 0-516-44992-2
- E. Gibbons, Gail. *The Reasons For Seasons*. New York: Holiday House, 1995. ISBN: 0-5234-1238-5
- F. Hirschi, Ron. *Fall*. New York: Cobblehill Books, 1991. ISBN: 0-525-65053-9
- G. Maass, Robert. *When Autumn Comes*. New York, Scholastic, 1996. ISBN: 0-590-96825-4
- H. Maestro, Betsy. *Why Do Leaves Change Color?*. New York: Scholastic Inc., 1995. ISBN: 0-590-62154-8
- I. McDonnell, Janet. *Animal Migration*. Chicago: Children's Press, 1989. ISBN: 0-516-06389-8
- J. Poe, Heather, Ranger, Roxborough State Park, Colorado
- K. Schnur, Steven. *Autumn An Alphabet Acrostic*. New York: Clarion Books, 1997. ISBN: 0-395-77043-2
- L. Venino, Suzanne. *What Happens in the Autumn*. National Geographic Society, 1983. ISBN: 0870444522
- M. Warren, Jean. *Four Seasons Science*. Torrence: Frank Schaffer Publications, Inc., 1996. ISBN: 1-57029-091-1
- N. Whitlock, Warren. *The Seasons Autumn*. New York: The Bookwright Press., 1987. ISBN: 0-531-18140-5
- O. *World Book Encyclopedia*. Chicago: Field Enterprises, Inc., 1961. (Books B, D, F, G, H, J, R)

World Wide Web Sites:

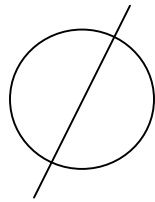
[www.dictionary.com](http://www.dictionary.com)

[www.janbrett.com/mitten\\_masks\\_main.htm](http://www.janbrett.com/mitten_masks_main.htm)

Appendix A

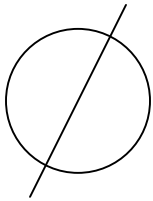
Name: \_\_\_\_\_

## Earth In Fall



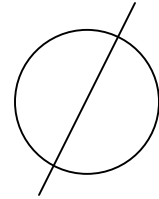
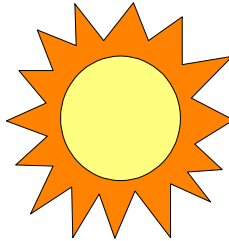
The earth is not tilted  
toward or away from the sun

\_\_\_\_\_



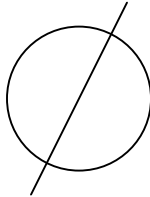
\_\_\_\_\_

The Northern Hemisphere  
is tilted toward the sun.



\_\_\_\_\_

The Northern Hemisphere  
is tilted away from the sun.



\_\_\_\_\_

The earth is not tilted  
toward or away from the sun

Label the seasons on the lines above. Color the globe showing the season it is now. Use the words in the box below to fill in the blanks.

1. On the first day of fall, the number of day hours is \_\_\_\_\_ the number of night hours.
2. In fall, temperatures are \_\_\_\_\_ than in summer.
3. In fall, the earth \_\_\_\_\_ tilt toward or away from the sun.
4. The earth rotates on its axis every \_\_\_\_\_ hours.
5. It takes the earth one \_\_\_\_\_ to revolve around the sun.
6. One year is \_\_\_\_\_ days.
7. Fall starts around \_\_\_\_\_.

Sept. 1	the same as	365	year	day
does	24	more than	cooler	does not warmer
	Sept. 22	260	60	

Appendix B



Name: \_\_\_\_\_

## My Fall Observations Log

Fill in this page writing in complete sentences. See how many things you can observe this week in your surroundings that relate to fall!

CHANGES I SEE:

DATE SEEN:

PLANTS

---

---

---

---

---

ANIMALS

---

---

---

---

WEATHER

---

---

---

---

CLOTHING

---

---

---

---

OUTDOOR

ACTIVITIES

---

---

---

---

## Appendix C



### Squirrel Paper Bag

Directions: Copy the squirrel and cut head separately from the body. Glue the head on the bottom of the brown paper lunch bag, and attach the body just below, on the side panel, giving them the appearance of being connected. Have the students decorate their bags, and use them to collect nuts, leaves, etc.

Name: \_\_\_\_\_

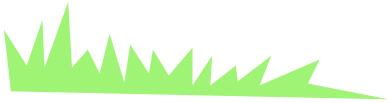
## Plants in Fall

Please record your observations of the signs of fall  
as we observe this area today.



The trees \_\_\_\_\_

\_\_\_\_\_



The grass \_\_\_\_\_

\_\_\_\_\_



The flowers \_\_\_\_\_

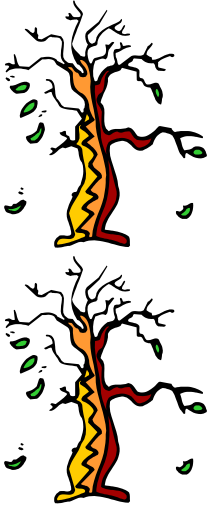
\_\_\_\_\_

Answer in a complete sentence.

Why do the leaves change color in the fall? \_\_\_\_\_

\_\_\_\_\_

Appendix E



*Place class photo here.*

*Duplicate one for each student  
as the 'divider' for each section of their  
Seasons Book, to be compiled at the  
end of the unit of study.*





# *Fall*



## Appendix F1



## FALL TEST

Name: \_\_\_\_\_

Write the correct word from the box below on the blank lines.

fur	warmer	autumn	sunlight	insects	birds
hibernate	seeds	harvest	food	planting	migrate

1. Another name for fall is \_\_\_\_\_.
2. The time when farmers pick all their ripened plants is called \_\_\_\_\_.
3. One of the reasons leaves change color in the fall is due to less \_\_\_\_\_.
4. Animals like squirrels gather and store \_\_\_\_\_ for the winter.
5. Many \_\_\_\_\_ lay their eggs and die in the fall.
6. Some animals' \_\_\_\_\_ gets longer and thicker to help keep them warm.
7. In fall, plants make \_\_\_\_\_ that will grow in the spring.
8. Some animals \_\_\_\_\_ to the south to find food and get away from the colder temperatures.

Appendix F2

Write T if the answer is true and F if the answer is false.

\_\_\_\_\_ The first day of fall is August 21.

\_\_\_\_\_ Birds fly east when they migrate in the fall.

\_\_\_\_\_ A bear gains fat in the fall so it can live through the winter.

\_\_\_\_\_ When the Northern Hemisphere tilts away from the sun, our nights get longer.

\_\_\_\_\_ Fall starts in September and ends in December.

\_\_\_\_\_ Leaves die and fall off the tree because they don't have any more food.

\_\_\_\_\_ In the fall, some butterflies migrate.

List two reasons birds migrate in the fall.

1. \_\_\_\_\_

2. \_\_\_\_\_

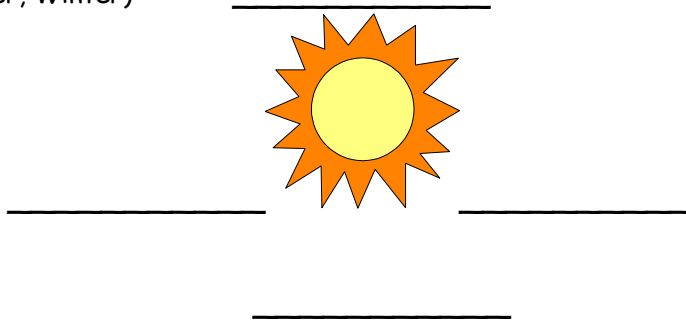
Write two or more things animals do to get ready for winter if they do not migrate.

1. \_\_\_\_\_

2. \_\_\_\_\_

Fill in the cycle of the seasons in the correct order.

(Spring, Fall, Summer, Winter)



# *Fall Is...*



*The sound of*

---

---

*The smell of*

---

---

*The sight of*

---

---

*The taste of*

---

---

*The feel of*

---

---

***Animal Seasons* Presents “Fall: A Time for Preparation”**

(Props for this play may be found in this Unit under “Summer”)

Cast

Dr. Does-a-lot	Mrs. Doe	Jackrabbit	Mr. Mallard	Mrs. Bear
Ms. Grasshopper	Mr. Buck	Frog	Mrs. Mallard	

---

*Dr. Does-a-lot:* Dr. Colorado Does-a-lot here with the fall episode of *Animal Seasons*. We’ll be visiting the animals we met last summer to see what they’re doing now that fall is here. The word for fall is *preparation*. Watch and see what I mean.

(Roll tape)

*Dr. D:* Hello, Collie Does-a-lot here in a meadow high in the mountains of Colorado. As you can see, things have changed quite a bit since we were here last. The leaves on the aspen trees have turned yellow and are falling. The meadow grasses are all brown and it is definitely jacket weather. (Looks around) Well, well. If it isn’t our old friend Ms. Grasshopper. Hello.

*Ms. Grasshopper:* Hi, Dr. Does-a-lot.

*Dr. D:* Hi, Ms. G. What are you doing?

*Ms. Grasshopper:* I’m laying my eggs in this hole in the ground.

*Dr. D:* How exciting. Soon you’ll be the mother to lots of little nymphs.

*Ms. Grasshopper:* (Sadly) No, I’ll never see them. The weather is getting too cold for me and all the plants I need for food are dying. After I lay my eggs, I’ll die, too.

*Dr. D:* But what will happen to your eggs?

*Ms. Grasshopper:* They don’t need me to take care of them. They’ll lay here safely in ground until next spring and then they’ll hatch.

*Dr. D:* I will miss you Ms. Grasshopper. Goodbye.

*Ms. Grasshopper:* Goodbye.

(Dr. Does-a-lot walks sadly away.)

*Dr. D:* Who is this I see? It's Mrs. Doe and Mr. Buck. But who is this young buck?

*Mrs. Doe:* Hello, Dr. Does-a-lot. This is my fawn. Remember last summer when you almost stepped on him? He's certainly grown hasn't he?

*Dr. D:* Yes! And no more spots.

*Mrs. Doe:* That's right. He lost his spots when he started growing his thick winter hair.

*Dr. D:* Why does his hair grow so thickly?

*Mrs. Doe:* We are all growing thicker hair. We'll need it so we can keep warm when winter comes.

*Dr. D:* (Looking at Mr. Buck) What happened to the fuzzy stuff that was on your antlers?

*Mr. Buck:* I told you they'd get harder. I've rubbed all the velvet off against tree branches. Now I'm ready if anyone wants to fight me.

*Dr. D:* I hope that doesn't happen. See you around. (Walks off) I see someone under that bush over there. Oh, it's Jackrabbit. But she looks different. Hello, Jackrabbit.

*Jackrabbit:* If it isn't Dr. Does-a-lot. What brings you around here?

*Dr. D:* I'm just out seeing what animals are doing in the fall. You sure have grown and it looks like you've changed color.

*Jackrabbit:* Yeah, I'm all grown up. My fur is getting much thicker so I'll be warm this winter and it's starting to turn white. By winter I'll be completely white so I can hide in the snow. If I was still brown a coyote or hawk could see me easily.

*Dr. D:* Well stay warm. (Walks off) I think I'll go down to the creek and see if anyone is there. Oh, there's Frog. Hey, Frog, wait up. What are you doing?

*Frog:* Oh, hi Dr. Does-a-lot. You caught me just in time. I'm getting ready to bury myself in the mud.

*Dr. D:* Bury yourself in the mud! Why?

*Frog:* Because winter is coming. I couldn't live in the cold and snow and there is nothing for me to eat, so I bury myself in the mud and hibernate until spring.

*Dr. D:* Hibernate, what's that?

*Frog:* It's like a long sleep.

*Dr. D:* Sleep well. See you in the spring. Oh look, who's swimming over there. It's Mr. and Mrs. Mallard and their ducklings. But they don't look like ducklings anymore. They're as big as their parents.

*Mrs. Mallard:* Hi, Dr. Does-a-lot. You got here just in time. It's getting cold. We're leaving.

*Dr. D:* Are you going to hibernate like Frog?

*Mrs. Mallard:* (Laughing) No, we're going to migrate.

*Dr. D:* What does migrate mean?

*Mrs. Mallard:* It means to travel somewhere with a group. We're flying south for the winter with some other mallards.

*Dr. D:* Why don't you stay here?

*Mr. Mallard:* The insects are dying. Soon the water will be frozen and the plants will be gone. We'd have nothing to eat and it is too cold for us to stay.

*Dr. D:* It's a good thing your children can fly now. Have a safe trip. Goodbye. Boy, things sure are changing. I think I'll head into the forest. (Walks on) If it isn't Mrs. Bear and her two cubs.

*Mrs. Bear:* (Stuffing berries into her mouth) Mmm. Hello, Dr. Does-a-lot.

*Dr. D:* What are you doing on this fine fall afternoon?

*Mrs. Bear:* Eating. I've got to gain a hundred pounds. I'm not fat enough.

*Dr. D:* It's the first time I ever heard a female say that! Why do you want to be fat?

*Mrs. Bear:* Because we're getting ready to hibernate...

*Dr. D:* So is Frog.

*Mrs. Bear:* What? Oh, right. Anyway while we're hibernating we live off our fat, so the more fat we have the better.

*Dr. D:* I see. Happy eating. (Walks off)

(Film ends)

*Back in the studio...*

*Dr. D:* I think you can see why I said at the beginning of the show that fall was the time for *preparation*. All of the animals are preparing for winter in their own ways by hibernating or migrating or laying eggs or growing thick fur. Tune in next time and we'll see how they're doing in the winter on *Animal Seasons*.

---