

A Time for All Seasons – Spring (Part IV)

Grade Level: 2nd Grade

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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 were presented in 2002; Parts III & IV are 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

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

- A. **Burton, Jane and Taylor, Kim. *The Nature and Science of Spring*. Milwaukee: Gareth Stevens, Inc., 1999 ISBN: 0-8368-2188-2**
- B. de Paola, Tomie. *Four Stories for Four Seasons*. New York: Prentice-Hall Books for Young Readers, 1977. ISBN: 0-13-330119-2
- C. Fowler, Allan. *How Do You Know It's Spring?*. Chicago: Children's Press, 1991. ISBN: 0-516-44914-1
- D. **Gibbons, Gail. *The Reasons For Seasons*. New York: Holiday House, 1995. ISBN: 0-5234-1238-5**
- E. **Hirschi, Ron. *Spring*. New York: Cobblehill Books, 1990. ISBN: 0-525-65037-7**
- F. **Lindburgh, Reeve. *North Country Spring*. Boston, Houghton Mifflin Co.,1997. ISBN: 0-395-82819-8**
- G. **Maass, Robert. *When Spring Comes*. New York, Henry Holt and Co., 1994. ISBN: 0-8050-2085-3**
- H. Santrey, Louis. *Spring Discovering the Seasons*. Mahwah: Troll Associates, 1983. ISBN: 0-89375-909-0
- I. Schnur, Steven. *Spring An Alphabet Acrostic*. New York: Clarion Books, 1999. ISBN: 0-395-82269-6
- J. Schnur, Steven. *Spring Thaw*. Harmondsworth: Viking, 2000. ISBN: 0-670-87961-4
- K. *Spring in Nature* (VHS recording). Evanston: Altschul Group Corporation (1-708-328-6700)

V. LESSONS (continued)

Lesson Four: Seasons - Spring

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 understand 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
 - a. Spring – sprouting, sap flow in plants, mating and hatching
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* bluebird or flower shape cut from butcher paper to be displayed throughout the unit of study; two colored markers (day 1)
2. Video: *Spring in Nature* by Film Fair Communications
3. Reeve Lindburgh’s *North Country Spring* and/or *Spring Thaw* by Steven Schnur (day 1)
4. globe (day 1)
5. lamp without shade (day 1)
6. Appendix A – optional overhead for teacher; Earth in Spring worksheet (Appendix A) – (day 1) – one per student
7. construction paper; crayons/markers
8. Observations of Spring (Appendix B) – (day 1)
9. Ron Hirschi’s *Spring*
10. *Nature and Science of Spring*; Jane Burton and Kim Taylor (days 2 & 3)
11. Play, “*Animal Seasons Presents Spring: New Beginnings*” (Appendix J1-4) - one copy per participant (day 2)
12. Writing paper – per student
13. “Wake up Bear Puppet” – Appendix D (day 2)
14. camera; Appendix I per student
15. Plants in Spring (Appendix C) day 3
16. *Nature All Year Long* by Clare Walker Leslie (day 3)
17. cups (plastic or Styrofoam) – one per student (day 3)
18. seeds/potting soil
19. Tissue paper in a variety of colors/pipe cleaners (Appendix E for directions) (day 3)
20. Optional – dress up; garden gloves, hat, small spade or trowel, seed packets/bulbs, soil, etc.) (day 4)
21. *When Spring Comes* by Robert Maass
22. Cotton Swab Pussy Willow craft (Appendix F) (day 4)

23. Unit Test (Appendix G1-3) (day 5)
 24. Spring is... (Appendix H) (day 5)
 25. Spring Tree (Appendix I) (day 5)
- C. *Key Vocabulary*
1. sprout - to begin to grow; give off shoots or buds.
 2. sap – a sugary liquid that carries nutrients in plants
 3. mating - either of a pair of animals brought together for breeding.
 4. hatching - to emerge from or break out of an egg.
- D. *Procedures/Activities*
- Note for Day 1* (As an observation activity throughout the week, try bringing in some branches from a nearby tree/bush (pussy-willow branches or forsythia work well for this), and place them in a vase of water to observe their changes in the week, or even beyond the unit.)
- Day 1 – Earth in Spring
1. Prior to the unit, a large bluebird or flower shape 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 ‘spring’?” Write their responses with one color marker. You will be adding notes learned in another color throughout the unit.
 2. View Video: *Spring in Nature* or read the book *North Country Spring* or *Spring Thaw* by Steven Schnur.
 3. Review the concepts of *rotation* and the earth *revolving on its axis*. Ask a student to demonstrate using the globe/lamp demonstration. First have a demonstration of *rotation* and ask what does it show (day/night). Have another student explain the earth’s revolution around the sun, stopping at the point in which each of the four seasons is best shown, and explain what is happening at each. Review the concept with the overhead from Appendix A if desired.
 4. Have students complete “Earth in Spring” worksheet (Appendix A)
 5. Hand out construction paper to each child. Fold in half and label the folder “Spring”, and have them label the phases of each season (i.e. the earth’s location to the sun) as demonstrated earlier. Place the worksheet in the folder and collect.
 6. Send home the “Observations of Spring” log (Appendix B), to be completed and returned on day 5.
- E. *Evaluation and Assessment*
1. Worksheet /folder cover
- D. *Procedures/Activities*
- Day 2 – Animals in Spring
1. Read Ron Hirschi’s book, *Spring*. Discuss the common thread of birth and new growth, as well as many changes for the animals throughout the book. *Also share from pages 16-27 in The Nature and Science of Spring.*
 2. Present the play, “*Animal Seasons presents Spring: New Beginnings*” - assigning parts to various students, as the teacher plays the part of Dr. Does-a-lot.
 3. Pass out paper and have the students write 3-4 sentences on how the animal of their choice from the play changed in the spring.
 4. Add “new information learned” to the Spring Observation Chart.
 5. Today’s activity is making a “Wake up Bear Puppet” (Appendix D from *Crafts to Make in the Spring* - Ross)

- E. *Evaluation and Assessment*
1. Assess writing/craft
- D. *Procedures/Activities*
Day 3 – Plants in Spring
1. Read pages 13-15 in *The Nature and Science of Spring*.
 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 digital camera if available. Add a photo for each student to Appendix I, to be added to the “Seasons” book at the close of the unit.
 3. Have a discussion noting all the signs of spring around them – sights, smells, sounds – primarily of the plant life. Have students record their findings on Appendix C, and place in their folders. (Appendix C will be collected for use in the end of year/season’s study book – see notes.)
 4. Discuss the process of sap flow – see pg. 15 in *Nature All Year Long*
 5. Today’s activity includes planting seeds in cups/decorate; make tissue crocuses (Appendix E)
 6. Add new knowledge to “Spring Observation Chart”.
- E. *Evaluation and Assessment*
1. Notes/crafts
- D. *Procedures/Activities*
Day 4 – Activities of Spring
1. Brainstorm some of the children’s favorite activities of spring– and note them on the board. (You may choose to ‘dress up’ for today –garden gloves, hat, small spade or trowel, seed packets/bulbs, soil...)
 2. Read, “*When Spring Comes*” by Robert Maass.
 3. Today’s activity is Cotton Swab Pussy Willows (Appendix F)
- E. *Evaluation and Assessment*
1. Observations/Craft
- D. *Procedures/Activities*
Day 5 – Culminating activities/Test
(At the beginning of the day, or whenever you collect homework, be sure to get the “My Spring 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 Spring Observation Chart.
 2. Hand out a copy of the Unit Test to each student. (Appendix G1-3)
 3. When students have completed their test, have them complete the “Spring Is...” poem, (Appendix H), using their creativity!
 4. Once the poem is completed, have them draw a *spring* tree, (Appendix I from folders – to be collected for Season Book at the end of the unit of study)
- E. *Evaluation and Assessments:*
1. Unit Test – 100 points
 2. Spring Is... poem (Collect for “Seasons Book”)
 3. (Collect spring tree to be compiled as a Seasons Book at the end of the unit of study)
 4. Teachers may choose to do a ‘unit’ grade in addition to the test, based on the Appendixes graded.

5. At the close of the four seasons, you will want to take each student's work that you have collected over the course of this unit of study, and bind it together, laminating a four-seasons cover with his/her name to go on top. Pass them back, and enjoy the student's response as they view the growth in their own work over the course of the year!

V. CULMINATING ACTIVITY

None

VI. HANDOUTS/WORKSHEETS

- A. Appendix A: Earth in Spring
- B. Appendix B: Spring Observation Log
- C. Appendix C: Plants in Spring
- D. Appendix D1 & 2: Wake Up Bear Puppet Pattern
- E. Appendix E: Tissue Paper Primroses
- F. Appendix F: Cotton Swab Pussy Willows
- G. Appendix G 1-3: Spring Test
- H. Appendix H: Spring Is...Poem
- I. Appendix I: Class Photo Insert
- J. Appendix J 1-4: Spring Play script

VIII. BIBLIOGRAPHY

Burton, Jane and Taylor, Kim. *The Nature and Science of Spring*. Milwaukee: Gareth Stevens, Inc., 1999 ISBN: 0-8368-2188-2

de Paola, Tomie. *Four Stories for Four Seasons*. New York: Prentice-Hall Books for Young Readers, 1977. ISBN: 0-13-330119-2

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Lindburgh, Reeve. *North Country Spring*. Boston, Houghton Mifflin Co., 1997. ISBN: 0-395-82819-8

Maass, Robert. *When Spring Comes*. New York, Henry Holt and Co., 1994. ISBN: 0-8050-2085-3

Poe, Heather, Ranger, Roxborough State Park, Colorado

Ross, Kathy. *Crafts to Make in the Spring*. Brookfield: Millbrook Press, 1998. ISBN: 0-7613-0316-2.

Santrey, Louis. *Spring Discovering the Seasons*. Mahwah: Troll Associates, 1983. ISBN: 0-89375-909-0

Schnur, Steven. *Spring An Alphabet Acrostic*. New York: Clarion Books, 1999. ISBN: 0-395-82269-6

Schnur, Steven. *Spring Thaw*. Harmondsworth: Viking, 2000. ISBN: 0-670-87961-4

Spring in Nature (VHS recording). Evanston: Altschul Group Corporation (1-708-328-6700)

Warren, Jean. *Four Seasons Science*. Torrence: Frank Schaffer Publications, Inc., 1996. ISBN: 1-57029-091-1

World Book Encyclopedia. Chicago: Field Enterprises, Inc., 1961. (Books B, D, F, G, H, J, R)

World Wide Web Sites:

www.dictionary.com

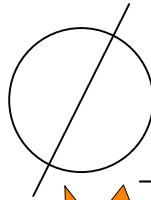
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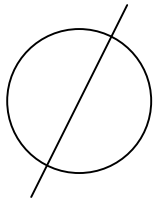
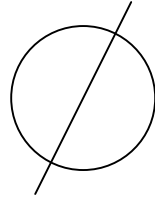
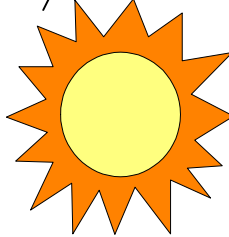
www.janbrett.com/mitten_masks_main.htm

Earth In Spring

Name: _____

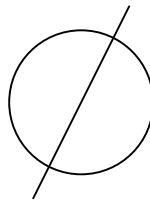


The earth is not tilted toward or away from the sun



_____ The Northern Hemisphere is tilted toward the sun.

_____ The Northern Hemisphere is tilted away from the sun.



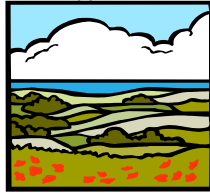
The earth is not tilted toward or away from the sun

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 spring, the number of day hours is _____ the number of night hours.
2. In spring, temperatures are _____ than in winter.
3. In spring, the earth _____ tilt toward the sun.
4. The earth _____ on its axis once every 24 hours.
5. The earth _____ around the sun once every year.
6. One year is _____ days.
7. Spring starts around _____.

March 21	revolves	less than	cooler	does	365
warmer	doesn't	356	rotates	April 21	the same as

Brainteaser: In what other season are the daytime and nighttime hours equal? _____



Name: _____

My Spring 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 spring!

CHANGES I SEE:

DATE SEEN:

PLANTS

ANIMALS

WEATHER

CLOTHING

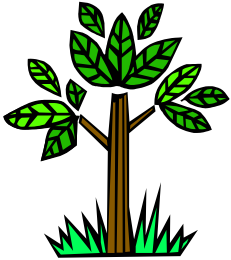
OUTDOOR

ACTIVITIES

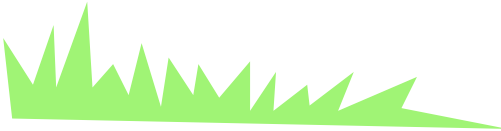
Name: _____

Plants in Spring

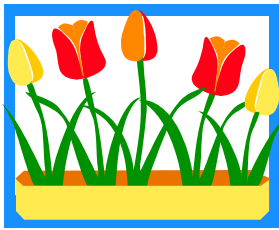
Please record your observations of the signs of spring
as we observe this area today.



The trees _____



The grass _____



The flowers _____

Answer in a complete sentence.

Why are most of the plants in the sprouting stage during spring? _____

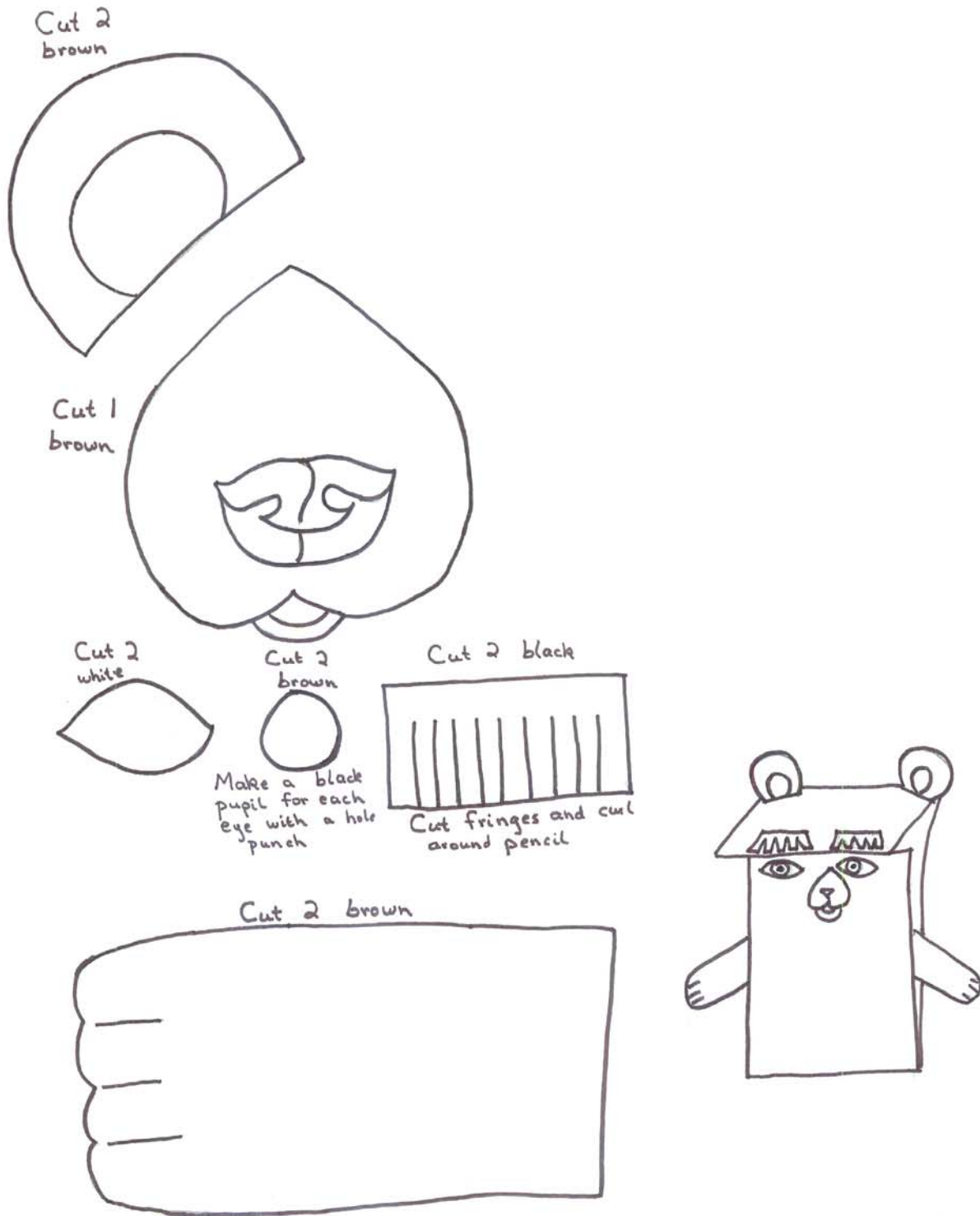
Wake Up Bear Puppet

(diagram on next page)

brown paper lunch bag
brown, black, white construction paper
glue
hole punch
pencil

Directions:

1. Cut out pattern pieces in colors in the amounts indicated.
2. Fringe and curl eyelash pieces using a pencil.
3. Glue eyelashes and ears to bottom of bag (see diagram)
4. Put eyes together by gluing a brown iris to a white eyeball, and adding a black pupil.
5. Glue eyes to bag under fold, making sure they don't show if the bag is laying flat.
6. Glue nose to bag so it does show when bag is laying flat.
7. Glue a paw on either side between the folds of the bag.



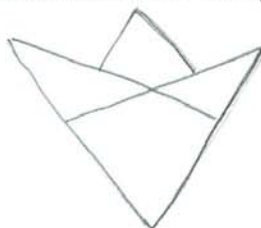
Tissue Paper Primroses



1. Cut out 4" squares of tissue paper (depending on how many per student). Fold it in half to make a triangle. Fold it in half again to find the center, and open it out.



2. Fold the two side points across the triangle, from the center, so you get a shape like this:



3. Draw a curve from one edge to the other on the top fold.



4. Cut the curve out through all the folds.
5. Unfold your primrose. Cut a pipe cleaner in half and push one end through the center of the flower. Glue crepe paper around the stem and make some leaves to glue to its base.

Cotton Swab Pussy Willows

(taken from "Crafts to Make in the Spring" by Kathy Ross)

Materials:

Cotton swabs (approx. 20 per student)

Two 12-inch brown pipe cleaners

Pencil

One sheet of colored construction paper

Stapler

Piece of wallpaper – cut into vase shapes

Yarn

Gray poster paint

Scissors

White glue

Paper plates or Styrofoam tray for drying

Directions:

1. Dip both ends of the cotton swabs in the gray paint. Put the swabs on the Styrofoam tray to dry.
2. Draw a vase on the back of the wallpaper. Make it a little less than half as tall as the piece of construction paper. Cut the vase out. (You may choose to have this done ahead of time.)
3. Cut each pipe cleaner in two so that one piece is slightly longer than the other piece.
4. Glue the wallpaper vase onto the construction paper, putting the four pieces of pipe cleaner into the vase to look like stems.
5. Cut the gray ends off of each of the cotton swabs. For the puss-willow buds, glue the fuzzy gray swab ends along the sides of each of the pipe-cleaner stems.
6. Cut a 24" piece of yarn. Fold the top inch of the picture back. Put the middle part of the yarn under the fold and staple the fold to hold it in place. Tie the two ends of the yard together to make a hanger.

Spring Test

For this test, please cut the following statements out, and glue them to the large piece of construction paper, which you have labeled, Spring, Summer, Fall, and Winter. Place each statement in the proper season in which it occurs.

The shortest day of the year occurs in this season.

The longest day of the year occurs in this season.

On the first day of this season, daytime and nighttime are the same length.

On the first day of this *other* season, daytime and nighttime are the same length.

Animals migrate south during this season.

Animals migrate north during this season.

Some animals' coats turn white during this season.

In this season, plants will make seeds.

Squirrels gather nuts during this season.

Daytime temperatures are the hottest during this season.

During this season, animals fur is very thick.

Trees get new leaves during this season.

During this season, some insects lay their eggs and then die.

Birds lay eggs during this season.

During this season, the Northern Hemisphere is tilted *toward* the sun.

During this season, farmers harvest their crops.

Blizzards might occur during this season.

Frogs lay their eggs in the water during this season.

During this season, the ground is often frozen.

New baby animals are born during this season.

Seeds begin to sprout during this season.

During this season, leaves on the trees change color and fall to the ground.

During this season, sap begins to flow in maple trees.
Grass grows fast and needs to be cut often during this season.

Farmers plant new crops during this season.

During this season, the Northern Hemisphere is tilted *away* from the sun.

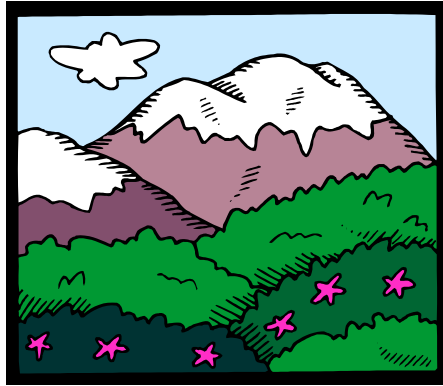
Animals are hibernating during this season.

Plants are dormant during this season.

In this season, baby animals grow the most.

Plants grow bigger and have small, unripe fruit on them during this season.

Spring is...



The sound of _____

The smell of _____

The sight of _____

The taste of _____

The feel of _____

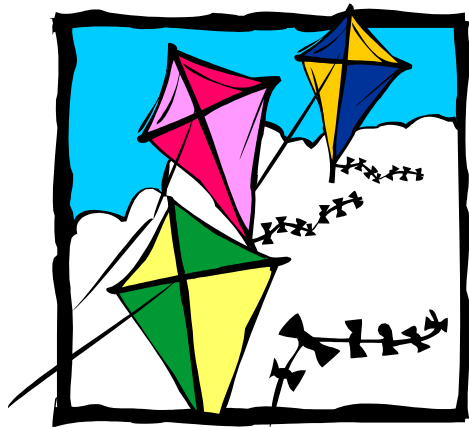


Place class photo here.

*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.*



Spring



Animal Seasons Presents “Spring: New Beginnings”

Cast

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

Dr. D: Hi, it’s me again, Dr. Colorado Does-a-lot with spring season episode of *Animal Seasons*. The spring is all about new life as animals are mating and new babies are hatching or being born. I think you’ll enjoy this.

(Roll tape)

Dr. D: Here we are for the fourth and last time in our Colorado meadow. You see a carpet of new grass, fresh green leaves on the aspen, and buds and flowers everywhere. Oh my goodness! What do I see over there by that rose bush? Ms. Grasshopper’s eggs are hatching. I see 1-2-3-4-10-17-25, oh, there are too many to count! Hello little nymphs.

Nymphs: Hello, who are you?

Dr. D: I’m Dr. Does-a-lot.

Nymphs: Are you our mother?

Dr. D: No, I’m not a grasshopper, I’m a human. But I knew your mother. She died last fall after she laid all these eggs.

Nymphs: We’re hungry. Let’s fly over and get some grass.

Dr. D: I’m afraid you can’t fly yet little guys. You’re going to have to molt five times before you get your wings.

Nymphs: What’s molt.

Dr. D: It means you grow too big for your skin so you shed it. But you could hop over to the grass. Why don’t you try out those jumping legs of yours.

Nymphs: Okay, see ya.

Dr. D: It sure was fun seeing those little nymphs. But look who I see at the edge of the trees. It’s Mrs. Doe. Hi, I’m glad to see you survived the winter.

Mrs. Doe: Hi, Dr. Does-a-lot. Yes, I’m fine. Let me introduce you to the newest member of the family. Come here little one.

Dr. D: Oh look, a new fawn. She’s beautiful and so tiny. How old is she?

Mrs. Doe: She was born yesterday. Already she can walk around on those long skinny legs. I feed her milk and I’ll teach her how to find other foods and stay away from predators just as I taught her brother last year.

Dr. D: Where is that young buck?

Mrs. Doe: He's a yearling now so he's gone off with his father and the other bucks.

Dr. D: Maybe I'll run into them a little later. It was nice talking to you but I want to move on down by the creek and see what I can find. (Walks away)

Frog: Ribbit

Dr. D: Could it be? Yes it is Frog. She's come out of hibernation. Hello Frog. What have you been up to?

Frog: Oh, I've been busy. First there was the mating and now I've just finished laying my eggs. Aren't they beautiful?

Dr. D: I don't see any eggs. All I see is something that looks like clear jelly with black dots in it.

Frog: Those are my eggs and in about 10 days they'll hatch into cute, wiggly tadpoles.

Dr. D: How will you take care of so many?

Frog: I don't have to take care of them. They take care of themselves, swimming around as their back legs grow and then their front legs. Then they'll come out on land as little frogs. By fall they'll look just like me.

Dr. D: I must say that's pretty amazing. Oh, look who's back. Hello Mr. Mallard, how was everything down south?

Mr. Mallard: Sunny and warm. It was very nice, but I am glad to be back. Migrating is very tiring. We flew over a thousand miles.

Dr. D: No wonder you're tired. Where are all your ducklings?

Mr. Mallard: Oh they've gone off to start their own families now. But look over there near that patch of wild iris and you'll see Mrs. Mallard. She's kind of hard to see because she blends in so well, but she's sitting on our nest with 5 eggs in it.

Dr. D: That's wonderful. How are you doing, Mrs. Mallard?

Mrs. Mallard: I'm fine but I'm a little tired of sitting here. I've been on this nest for more than four weeks.

Dr. D: Four weeks! I don't know if I could sit there that long.

Mrs. Mallard: Oh my goodness!

Dr. D: What?

Mrs. Mallard: Listen. I hear a pecking sound.

Mr. Mallard: Maybe the ducklings are hatching.

Mrs. Mallard: Look you can see a crack in this egg.

Dr. D: And now I see a little bill and a head.

Mr. Mallard: No matter how many times I see it, it's always amazing when the ducklings hatch.

Dr. D: Hello little duckling. Well, I'll leave you to enjoy the hatching of the other four eggs. (Walks off) I'd recognize those ears anywhere. Hello, Jackrabbit. I see you've changed back to your brown fur again. What's going on?

Jackrabbit: Hi, Dr. Does-a-lot. Yes, I'm brown again. If I was still wearing my white winter coat I'd stick out like a sore thumb in all this brown and green and I'd be way too hot. I want to show you something. Look over here in this clump of grass.

Dr. D: Why it's 3 baby bunnies. They're so tiny and they look so soft.

Jackrabbit: They are beautiful aren't they? Unlike some other mammals, they're born with fur and have their eyes open.

Dr. D: Will you go off and leave them like Frog does?

Jackrabbit: Oh no. I have to stay here and protect them and feed them my milk. They'll stay with me all summer.

Dr. D: I've enjoyed seeing your lovely family, but I want to go up and see what I can find in the forest. (Walks off into the forest) Well hello Mr. Buck and Yearling. I ran into Mrs. Doe and the new fawn down near the meadow. She said I might find you here.

Mr. Buck: Hello, Dr D. I suppose you're out talking to everyone about spring.

Dr. D: That's right.

Mr. Buck: Did you notice I'm growing a new set of antlers? Remember that mine came off in the winter.

Dr. D: So that's what those little fuzzy knobs on your head are.

Mr. Buck: Yup. By fall these beauties will be a nice pair of antlers.

Dr. D: Where are Yearling's antlers?

Mr. Buck: He won't start growing them until next year.

Dr. D: I'm glad I got a chance to talk to you, but I want to see if Mrs. Bear is out of hibernation yet. See you around. (Walks further into the forest) I wonder why this ground is all dug up.

Mrs. Bear: It was me. I've been digging up these plants and eating the roots.

Dr. D: Mrs. Bear, you're so skinny!

Mrs. Bear: That's because I used up all my fat while I was hibernating. I lost a third of my weight and I'm hungry as a bear.

Dr. D: I'll let you get back to your digging in a minute. Any new cubs?

Mrs. Bear: No, I'm still taking care of the ones from last year. They're not completely grown yet, so they'll stay with me until the end of the summer. I'm still teaching them how to take care of themselves even though they don't look like cubs anymore.

Dr. D: Well I must get back to the studio and you must get back to those roots. It was nice talking to you. Tell the youngsters I said hi.

(End tape)

Dr. D: (Back in studio) That brings us to the end of our spring feature. I hope you noticed all of the new life as the animals were mating, eggs were hatching, and new babies were being born. Those babies will grow, prepare for and get through winter in their own ways, and some of them will have babies of their own next year as the cycle of seasons goes around and around. I've enjoyed being your host here on *Animal Seasons* and hope you've learned a lot about animals' lives throughout the year. Goodbye now.