

Lesson Plan 3: Making Seasons Books

Subject: Science

Unit: Seasons

Grade: 1st-4th grade

****Prior Knowledge**:** **students have gained some knowledge about seasons.**

***Language Arts will also be integrated into this lesson plan. ***

Objectives:

1. Students will be able to find and explore information, pictures and photo images of the different seasons using a variety of search engines and [kid-safe websites](#) on the Internet.
2. Students will then be able to create and design their own books using Microsoft word and clipart gallery.
3. Students will be able to reveal the imperative effects that weather and seasons have on plants and animals.
4. Students will be able to read and present their books to the class using the LCD Projector.

Materials:

Computers

Internet

Colored printers

Microsoft word (word processing software)

Matte photo paper

LCD Projector

Time period: 1-2 weeks (Depending on availability of computers)

Safety Precautions: The teacher should evaluate websites prior to lesson! Be extremely cautious and familiar with all search engines that children will use, and make sure that only [kid-safe websites](#) (such as www.discoverychannel.com, www.askjeeves.com, and www.google.com) are utilized. The teacher also needs to ensure that copyright issues, theft, citation of resources and websites, etc., are addressed at the proper times during the lesson activity.

Science Standards and Benchmarks Objectives:

Michigan Science Standard: I. Construct New Scientific and Personal Knowledge

Content Standard 1: All students will ask questions that help them learn about the world; using appropriate technology; learn from books and other sources of

information; communicate their findings using appropriate technology; and reconstruct previously; and reconstruct previously learned knowledge.

(Constructing New Scientific Knowledge)

Elementary1: Generate reasonable questions about the world based on observation.

Elementary 2: Develop solutions to unfamiliar problems through reasoning, observation, and/or experiment.

Michigan Science Standard: Use Scientific Knowledge from the Earth and the Space Sciences

Content Standard 3: All students will describe and investigate what makes up weather and how it changes from day-to-day, from season to season and over long periods of time; explain what causes different kinds of weather; and analyze the relationships between human activities and the atmosphere. (Atmosphere and Weather)

Elementary 3: Describe seasonal changes in weather. (key concepts: Seasons, fall, winter, spring, summer. Real world contexts: Examples of visible seasonal changes in nature.)

National Science Education Standards:

Earth and Space Science

Content Standard D:

As a result of their activities in grades K-4, all students should develop an understanding of:

- **Properties of earth materials**
- **Objects in the Sky**
- **Changes in Earth and Sky**
- *This content standard basically emphasizes that the sun supplies the light and heat required to sustain the temperature of the earth. It also includes the fact that weather varies from day to day and spans across the four seasons.*

National Technology Education Standards

Michigan Technology Strand III: Technology Productivity Tools: Students use technology tools: Students use productivity tools to collaborate in constructing technology- enhanced models, prepare publications, and produce other creative works Grade (3-5).

Benchmark 5: Use technology tools (e.g multi-media authoring, presentation, web tools, digital camera, scanners) for individual and collaborative writing, communication and publishing activities to create knowledge products for audiences inside and outside the classroom (3).

Michigan Technology Strand V. Technology Research tools. Students use technology tools to locate, evaluate, and collect information from a variety of sources. Students

evaluate and select new information resources and technology innovations based on the appropriateness for specific tasks (Grades 3-5).

*Benchmark 7: Use telecommunications and **online resources**, (e.g., email, online discussions, web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom (4, 5).*

English Language Arts Standards and Benchmarks:

Strand I. MEANING AND COMMUNICATION

Content Standard 1: All students will read and comprehend general and technical material.

Later Elementary 1: Use reading for multiple purposes, such as enjoyment, gathering information, learning new procedures, and increasing conceptual understanding.

Content Standard 2: All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions.

Early Elementary 1: Write with developing fluency for multiple purposes to produce a variety of texts, such as stories, journals, learning logs, directions, and letters.

Engage:

1. Ask students to revisit their writing in their science activity logs/journals.
2. Do a book walk or picture walk of the two literature books that were read and discussed earlier (lesson #1):
 - The Seasons of Arnold's Apple Tree by Gail Gibbons (HBJ, 1984)
 - A Bear for All Seasons by Diane Marcial Fuchs, Illustrated by Kathryn Brown, Published by Henry Holt and company, 1995.
3. Ask students to ponder about this question, "Do you think that weather and seasonal changes play an important role in your lives, the lives of animals or plants? If so, how?"
4. *Ask students to think about how they will use the technology above to help inform the general public about the vital impact that the four seasons have on animals and plants. What could they make or develop in order to make other people aware of their findings? (Possible responses might include making a brochure or book, getting research from the Internet and making the book using Microsoft word, using Kidspiration Webs, etc.)*

5. Explain to students that today they will learn how to perform research on the Internet and will use Microsoft Word to answer the above question (#3)...affects of seasons on plants and animals and put research results/findings into a book/brochure format.
6. The teacher will then provide tips and instruction on how to conduct search about the affects of seasonal changes on plants and animals. Some tips might include using only key words when performing a search, using the Boolean logic...using and, +, or, not, and the minus (-) sign, to use quotes or not to use quotes, to include parenthesis or nor, etc.
7. The teacher should also model how to use functions/tools for formatting and basic actions such as *copy, cut, paste, save, save as, copying/saving images, delete, etc.* so that students can gain more knowledge when conducting research, editing and publishing their books/work.

Explore:

1. Students will use the Internet to retrieve basic information and images about seasons so that they may include them in their books.
2. Students will then use Microsoft Word to create their books.
3. Ask students to find as many animals as they can for different categories: animals that hibernate, animals that migrate, etc.
4. The teacher should be walking around, observing, and facilitating students' work, as well as assisting in the much-needed areas.

Explain:

Students will present their seasons books on the LCD projector to the class. Students should focus on how seasons affect plants and animals. Overall, seasons have an enormous affect on plants and animals.

Plants and animals are affected by the changing of seasons and temperatures. In the wintertime, there is less food for animals. This forces a lot of animals to leave or migrate the area in search of warmer temperatures/climate and for additional food. Many birds migrate, as do some reindeer and monarch butterflies. Many animals hibernate (frogs, bears, rodents, etc.) in places that are protected from the freezing weather. Did you know that it is almost impossible to wake up a hibernating animal? Some animals make do with available food like twigs and bark. Many animals give birth in the spring. Thus, the rapid growing period of baby animals takes place when there is an abundant amount of food.

Teacher will explain that many birds and other animals migrate in the fall to other places. Scientists are not sure how animals know when to migrate...it is most likely an instinct behavior!

Plants are affected by seasons as well. In spring and summer, when there is an abundant amount of sunlight and the days are long and warm, the leaves will produce a lot of green color, chlorophyll. There are other colors in the leaves, but the green color covers them. In the fall, there is less sun and the days are shorter and cooler, the leaves stop making the green color. Then the other colors in the leaves begin to show.

Explain that when a tree loses its leaves in the fall, it does not die. Its growth is slowed down in winter because it cannot make food without leaves. Next year's leaves already formed inside tiny buds. When spring returns, the buds will open, and the leaves begin to grow.

Have students watch leaves movie from [BrainPop](#).

Evaluate:

1. Teacher will evaluate students' progress by observing how students conducted and their Internet research.
2. Assess students by reviewing their finished Microsoft books.
3. Through ongoing observations and questioning during the engage, and while students are presenting their finished products.

Extend/Apply:

Have students read, "Something Froggy". This book is about the life cycle of a frog. Then, ask the students to fold a paper in quarters and draw what Frederick may do in each season.

Students may choose different animals to research to learn about their life cycle.

What causes seasons? Children can briefly research by using the Internet so that they may gather more information on *why or how* seasons happen? The teacher should closely monitor students as they are carrying out their research.

Resources:

<http://www.miclimb.net>

http://www.michigan.gov/documents/MichiganCurriculumFramework_14058_7.pdf

<http://www.nap.edu/readingroom/books/nses/html/overview.html#content>

<http://cnets.iste.org/>

BrainPop.com

http://www.edhelper.com/ReadingComprehension_27_23.html

<http://pics.tech4learning.com/>

Kid-safe Websites (over 100): <http://www.josts.net/explore/kidsafe.htm>

www.google.com

<http://www.fi.edu/time/Journey/JustInTime/seasons3.html>

<http://www.fi.edu/time/Journey/JustInTime/seasons2.html>