



La Mariposa/ The Butterfly

Denver Public Schools

In partnership with Metropolitan State College of Denver

El Alma de la Raza Project



La Mariposa/The Butterfly

By Deborah J. Frances

Grades: Early Childhood Education/Kindergarten

Implementation Time
for Unit of Study: 1–2 weeks

Denver Public Schools

El Alma de la Raza Curriculum
and Teacher Training Program

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La Mariposa/The Butterfly

Unit Concepts

- What is a butterfly (mariposa)?
- Life cycle of butterflies
- Different kinds of butterflies
- Scientific terminology (metamorphosis)
- Literacy (poetry, stories)

Standards Addressed by This Unit

Reading and Writing

Students read and understand a variety of materials. (RW1)

Students will add new words to their vocabulary. (OL Pathways to Success)

Students write and speak for a variety of purposes and audiences. (RW2)

Students apply thinking skills to their reading, writing, speaking, listening, and viewing. (RW4)

Math

Students recognize numbers 1 to 10. (Math ECE 2-Pathways to Success)

Students count up to twenty objects correctly. (Math ECE 3-Pathways to Success)

Students develop number sense, understand and use appropriate math vocabulary, understand and use numbers and number relationships in problem-solving situations, and communicate the reasoning used in solving these problems. (M1)

Science

Students know and understand the characteristics and structure of living things, the processes of life, and how things interact with each other. (S3)

Visual Arts

Students recognize and use visual arts as a form of communication. (A1)

Introduction

Mariposas (the Spanish word for “butterflies”) are probably the most beautiful and delicate of insects. How the butterfly is created is truly a wonder. Children and adults marvel at the cycle of caterpillar to cocoon to butterfly. What happens in the cocoon is a mystery, but what emerges is very special.

Metamorphosis is the scientific term for this magic of a tiny egg becoming a butterfly. The journey begins with an egg being laid on a leaf by a butterfly. When the egg hatches, a tiny caterpillar, called a larvae, emerges. It begins to eat and at the same time begins turning into a caterpillar. The caterpillar continues eating until its skin can stretch no more, and builds a shell called a chrysalis or cocoon. All is quiet for the next seven to 10 days and then, slowly, a butterfly appears.

Implementation Guidelines

It is recommended that this unit be used in the Early Childhood and possibly Kindergarten classes. It can be part of the science and literacy curriculum. Literacy activities will be the focus in Lessons 4 and 5. A simultaneous activity is recommended — purchasing your own larvae for observing and keeping a chart of the cycle that takes place.

Instructional Materials and Resources

The following books and resources are required for implementing this unit as written:

- Lesson 1 *A Rose With Wings* by Alma Flor Ada
Mariposas by Gary Dunn
- Lesson 2 *From Caterpillar to Butterfly* by Deborah Heiligman
A Chorus of Cultures: I'll Tell You Something by Alma Flor Ada
- Lesson 3 *Olmo and The Blue Butterfly* by Alma Flor Ada
- Lesson 4 *La Mariposa Bailarina* by Carlos Ruvalcaba
The Butterfly Alphabet Book by Brian Cassie, Jerry Pallotta
- Lesson 5 *Darkness and the Butterfly* by Ann Grifalconi

Lesson Summary

Lesson 1	Flutter, Flutter Butterflies! Children are introduced to the butterfly/mariposa, and have fun with a hands-on activity.	3
Lesson 2	Egg to Wings Children will learn about the life cycle of the butterfly by making a class chart.	7
Lesson 3	Caterpillar Math Children will create a caterpillar using their math skills and sequencing numbers.	9
Lesson 4	Butterfly Poetry Children will try creating fun poems along with illustrations to show their knowledge of the butterfly.	12
Lesson 5	“Adventures of the Mariposa” After sharing a story from Africa, children will share in the writing of a class story about a butterfly.	15

LESSON 1:

Flutter, Flutter Butterflies

What will students be learning?

STANDARDS

Students read and understand a variety of materials. (RW1)

Students know and understand their characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (S3)

Students will add new words to their vocabulary. (OL PRE 7–Pathways to Success)

Students recognize visual arts as a form of communication. (A1)

BENCHMARKS

Students understand the life cycle of any given thing.

Students describe characteristics of living things.

Preschool learners listen to and understand a variety of written materials.

OBJECTIVES

Students will be introduced to the butterfly and its life cycle.

What will be done to help students learn this?

INSTRUCTIONAL STRATEGIES

Read aloud

Visuals

Hands-on activity

Group discussion

PRELIMINARY LESSON PREPARATION

Cut butterfly shapes out of construction paper using the template provided in this unit. Make a copy of the Butterfly Life Cycle worksheet and cut apart. You will use these to assess each student at the end of this lesson, so you may want to laminate the pieces or make several copies.

ACTIVITIES

Read *A Rose With Wings* by Alma Flor Ada. Assess prior knowledge about butterflies, and caterpillars. Show the pictures of the cycle of a butterfly. Explain the terms larvae, caterpillar, cocoon, chrysalis, and metamorphosis. Using the book, *Descrube Mariposas*, share with the children the wonderful photographs of the metamorphosis, and the variety of butterflies.

Children will create a butterfly using a hands-on art activity. Each child will receive a large butterfly shape cut out of white construction paper. Using a glue and water mix, children will “paint” onto the paper. Apply bits of colored tissue paper to the “painted” areas and let dry. The result will be a bright and colorful butterfly.

VOCABULARY

Larvae — insect at birth

Caterpillar — wormlike larva of a butterfly

Cocoon — protective covering of an insect

Chrysalis — the pupa of the butterfly; protective covering during development

Metamorphosis — cycle of caterpillar to butterfly

Mariposa — Spanish term for butterfly

RESOURCE/MATERIALS

Describe Mariposas

A Rose With Wings by Alma Flor Ada

White construction paper cut into the shape of butterflies

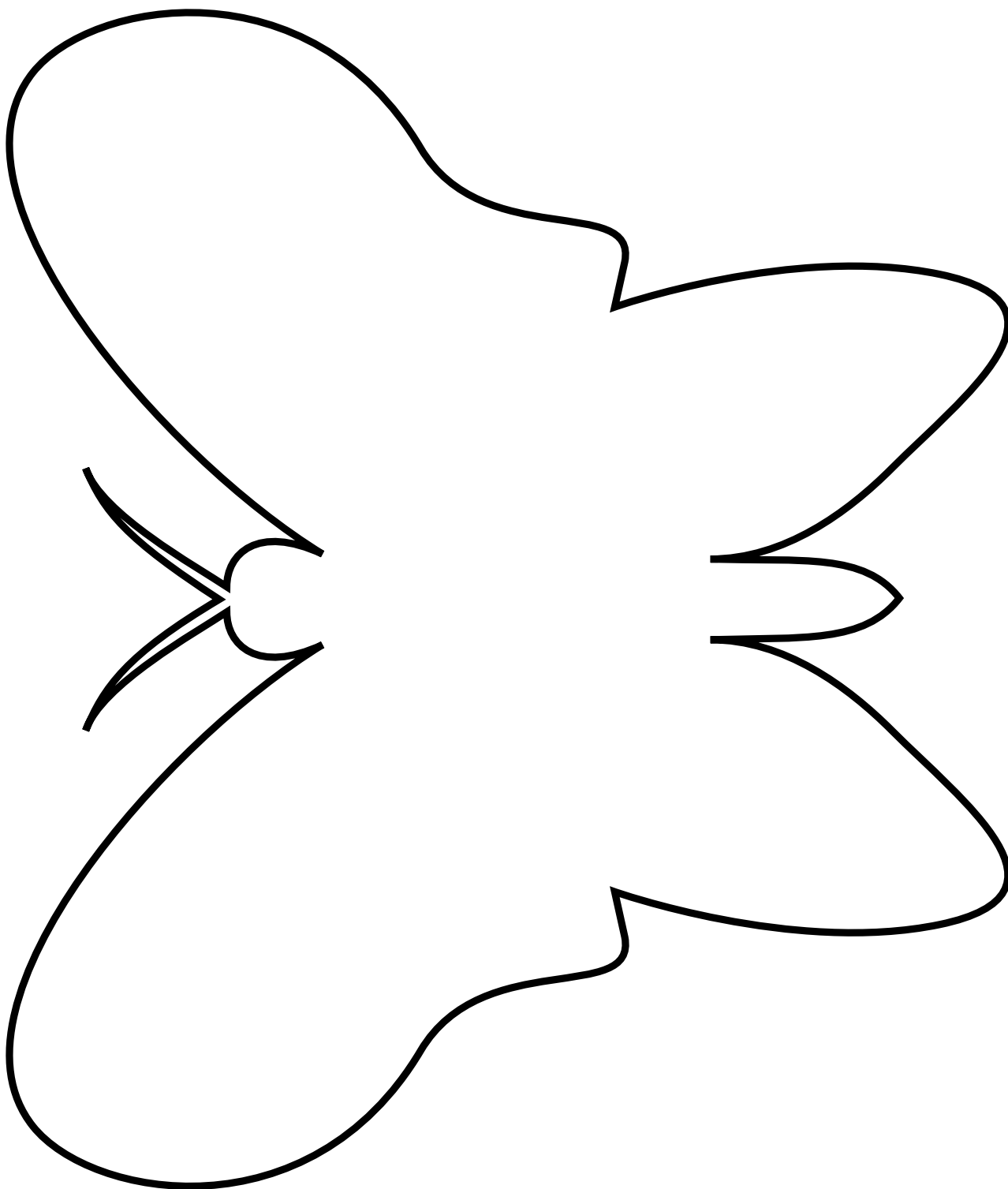
Glue and water mix with paintbrushes

Small pieces of colored tissue paper

ASSESSMENT

As children complete their butterfly, check for knowledge by having them arrange the four pieces from the Butterfly Life Cycle worksheet in the correct sequence.

Teacher: This can be used as a template for cutting out butterfly shapes.



Butterfly Life Cycle

Teacher: Cut apart the pieces below and have students arrange them in the proper sequence.



LESSON 2: Egg to Wings

What will students be learning?

STANDARDS

Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (S3)

Students read and understand a variety of materials. (RW1)

Students add new words to vocabulary. (O Pre 7–Pathways to Success)

Students answer questions about a read aloud story. (R ECE 12–Pathways to Success)

BENCHMARKS

Preschool learners listen to and understand a variety of written materials.

Students identify the stages of life cycles, which differ for various animals and plants, and describe one complete life cycle metamorphosis, mammal, and seed.

OBJECTIVES

Students will understand the process of metamorphosis.

Students will be able to sequence the stages from egg to butterfly.

What will be done to help students learn this?

INSTRUCTIONAL STRATEGIES

Read aloud

Poetry

Group discussion/sequencing

ACTIVITIES

Read *From Caterpillar to Butterfly* by Deborah Heiligman and review the process of metamorphosis. The book goes through the process step-by-step in a way that is simple for young students. Teach the children the poem “I’ll Tell You Something” by Ernesto Galarza, from the book *A Chorus of Cultures: I’ll Tell You Something*. Use large sheets of white construction paper folded into six sections. The children will use this paper to illustrate the life cycle of a butterfly.

Section one — have the children draw an egg on a leaf

Section two — they will draw the larva coming out of the egg

Section three — draw a caterpillar eating through a leaf

Section four — draw the caterpillar eating through a leaf

Section five — draw the chrysalis

Section six — draw a butterfly

VOCABULARY

Molt — to shed outer layer

Nectar — a sweet liquid from plants

Proboscis — the sucking organ of a butterfly (like a tube)

RESOURCES/MATERIALS

A Chorus of Cultures: I'll Tell You Something

From Caterpillar to Butterfly by Deborah Heiligman

White construction paper, folded into six sections

Crayons

Describe Mariposas for pictures of the cycle

ASSESSMENT

Observe children in the process of their drawings. Check to see understanding through the drawings and discussion.

LESSON 3: Caterpillar Math

What will students be learning?

STANDARDS

Students recognize numbers 1 to 10. (Math ECE 2-Pathways to Success)

Students count up to 20 objects correctly. (Math ECE 3-Pathways to Success)

Students develop number sense, understand and use appropriate math vocabulary, understand and use numbers and number relationships in problem-solving situations, and communicate the reasoning used in solving these problems. (M1)

BENCHMARKS

Students know and are able to read whole numbers and their relationships through counting, ordering, and grouping.

OBJECTIVES

Students will order numbers correctly 1 to 20.

Students will learn the characteristics of a caterpillar.

What will be done to help students learn this?

INSTRUCTIONAL STRATEGIES

Read aloud

Number ordering

Fine motor skills

Number recognition

PRELIMINARY LESSON PREPARATION

Make copies of the Caterpillar Worksheet.

ACTIVITIES

After reading *Olmo and the Butterfly* by Alma Flor Ada, discuss the caterpillar stage of the cycle. View photographs from the *Describe Mariposas*. Share facts about caterpillars.

Children will work on numbers 1 to 20 by making their own caterpillar. Give each student a Caterpillar Worksheet. Children will cut out circles, ordering them 1 to 20 with the “happy face” first. Glue circles down on a long strip of construction paper in order

VOCABULARY

Sequence

RESOURCE/MATERIALS

Olmo and the Blue Butterfly by Alma Flor Ada

Caterpillar Worksheet copied onto green paper

Glue, scissors

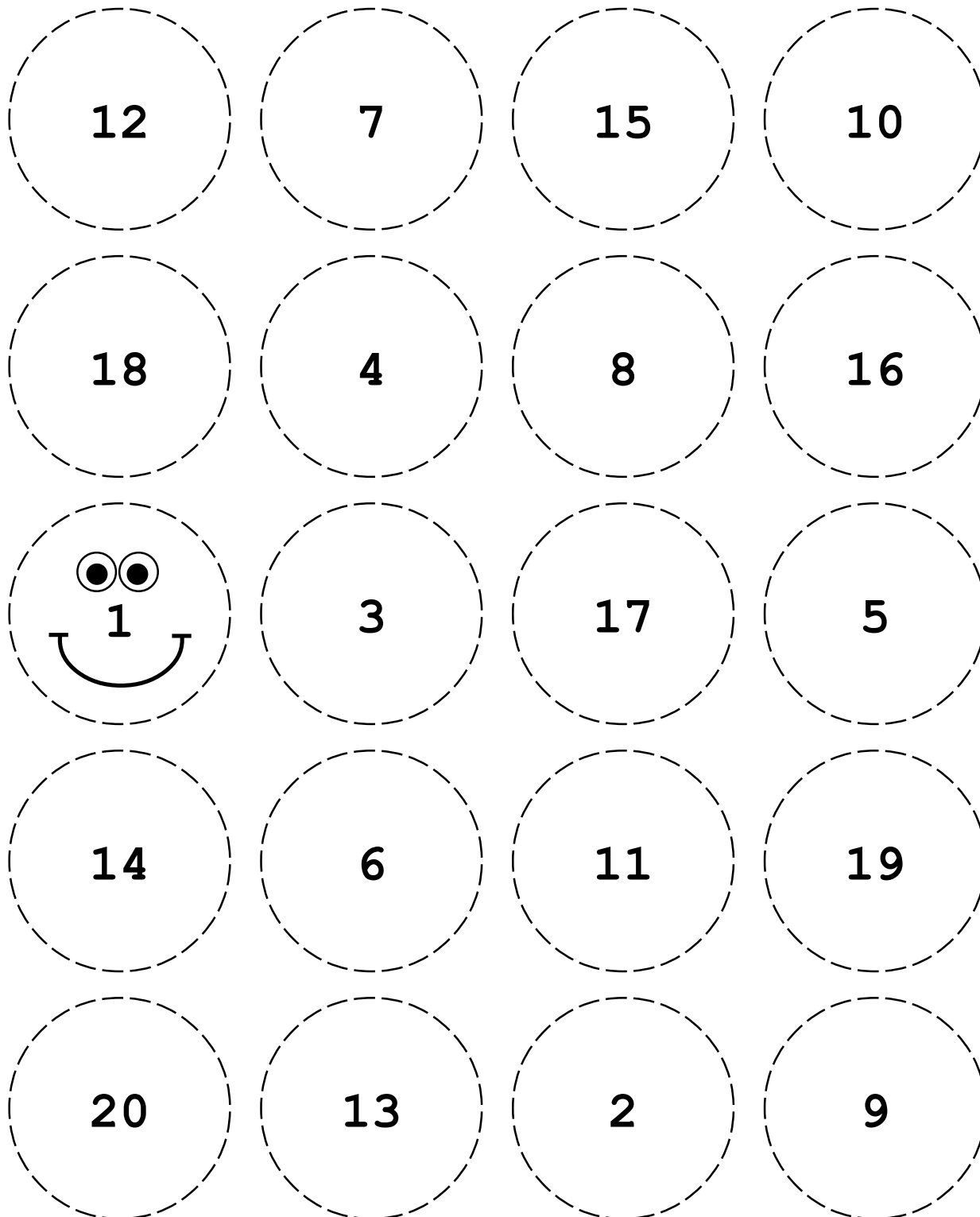
Descrube Mariposas

ASSESSMENT

Check for knowledge when viewing student's "ordering" of numbers. Through questions, see if the child can share any information on caterpillars.

Caterpillar Worksheet

Teacher: Copy this worksheet onto green paper. Have students cut out circles and glue them on a long strip of construction paper in the correct order to form a caterpillar.



LESSON 4: Butterfly Poetry

What will students be learning?

STANDARDS

Students read and understand a variety of materials. (RW1)

Students write and speak for a variety of purposes and audiences. (RW2)

Students will demonstrate that print has meaning. (R ECE 10-Pathways to Success)

Students will make comparisons of objects; include adjectives and adverbs in sentences. (OL ECE 8, 10-Pathways to Success)

BENCHMARKS

Students will listen to and understand a variety of written materials.

Students will understand that print is an important and symbolic means of communication.

Students will write for a variety of reasons.

Students will incorporate new vocabulary and concepts from books and other classroom learning experiences into their writing.

OBJECTIVES

Students will experience and participate in the writing of poetry.

Students will be introduced to a new form of writing.

What will be done to help students learn this?

INSTRUCTIONAL STRATEGIES

Read aloud

Modeled writing

Shared writing

Group discussions

PRELIMINARY LESSON PREPARATION

Make copies of the Butterfly Poetry worksheet for students to take home.

ACTIVITIES

Read *The Butterfly Alphabet Book* by Jerry Pallotta. Discuss the various butterflies and their names. Point out special characteristics. Share with the children ways to describe butterflies.

Share the book *La Mariposa Bailarina* by Carlos Ruvalcaba. On chart paper write the word Butterfly. Explain to the children that there is a variety of ways to describe a butterfly, and that they are going to help you do it in a poetic way. (This will be done in free verse, which is much simpler for ECE/kindergarten.) An example:

Butterflies

I like butterflies.

Butterflies are soft and delicate.

Butterflies glide silently through the air.

I like butterflies.

Next, have the children help you complete a poem. Write the poem on chart paper and let each child draw a butterfly around the edges. Display the finished poem in the classroom.

VOCABULARY

Poetry — a writing that describes an emotion or awareness through meaning, sound, and rhythm

Acrostic — type of poetry using descriptive words

RESOURCES/MATERIALS

The Butterfly Alphabet Book by Jerry Pallotta

La Mariposa Bailarina by Carlos Ruvalcaba

Chart paper

Copies of the Butterfly Poetry worksheet

ASSESSMENT

To complete the assessment, have the children take home the Butterfly Poetry worksheet. (This worksheet can be changed to read “Mariposa” if desired.) Children will fill in the words and illustrate with help from parents. Stress that children should use their own words. Check for appropriate descriptive words.

Butterfly Poetry Worksheet

PARENT/GUARDIAN: Help your child complete this worksheet. Next to each letter, write a short sentence, in their words, beginning with that letter describing something about butterflies. In the space on the right, have your child add an illustration to go along with the sentence.

B _____

U _____

T _____

T _____

E _____

R _____

F _____

L _____

Y _____

LESSON 5: “Adventures of the Mariposa”

What will students be learning?

STANDARDS

Students read and understand a variety of materials. (RW1)

Students write and speak for a variety of purposes and audiences. (RW2)

Students will communicate needs, feelings, ideas, and feelings through language.

(OL PRE 4-Pathways to Success)

Students will speak in complete sentences and include adjectives and adverbs in sentences.

(OL ECE 7,10-Pathways to Success)

BENCHMARKS

Preschool learners understand that print is an important and symbolic means of communication.

Preschool listeners experience quality literature in a variety of ways.

Preschool learners demonstrate concepts about print and knowledge of letters.

Preschool learners incorporate vocabulary and concepts gleaned from books and other classroom learning experiences into their conversations and writing.

OBJECTIVES

Students will use their knowledge of butterflies, imagination, and language skills to write a story about a “mariposa” or butterfly.

Students will create a class book.

What will be done to help students learn this?

INSTRUCTIONAL STRATEGIES

Read aloud

Modeled writing

Group discussion

Visual arts

ACTIVITIES

After reading the story set in Africa called *Darkness and the Butterfly* by Ann Grifalconi, discuss what the child learned from the butterfly. Gather children around in a circle. Talk about what an author and illustrator does in books (concepts about print).

Explain that they will be writing a story about the adventures of a butterfly. Start with “Once there was a tiny egg laid on a leaf by a butterfly...” Go around the circle and let each child continue the story. As they tell the story, write down each child’s contribution on a separate page. Go around until everyone has added to the story. As a group decide on an ending. When the book is finished, let each child illustrate their page. Bind the pages together and place the book in the literacy center for all to enjoy!

VOCABULARY

Illustrator

Author

Title page

RESOURCE/MATERIALS

White construction paper

Markers

Crayons

Binder

Darkness and the Butterfly by Ann Grifalconi

Imaginations

ASSESSMENT

Observation of what children contribute for their page, and if their illustration matches the story concept. Observe to see if students understand butterflies and their life cycle.

UNIT ASSESSMENT

How will students demonstrate proficiency?

PERFORMANCE TASK

After completing the lessons in this instructional unit, students should be able to:

- sequence and explain the cycle of the butterfly and the term metamorphosis;
- give the sequence of the egg to butterfly;
- describe the various phases of the egg to butterfly;
- give the correct terminology for larva, metamorphosis, cocoon, chrysalis, etc.;
- name some of the various types of butterflies (monarch, painted lady — one or two is enough); and
- correctly sequence the pictures by stages.

SCORING RUBRIC

Use the rubric below to score answers.

<u>Rubric Points</u>	<u>Description</u>
4	Gives adequate information about process and sequences pictures appropriately.
3	Gives some information, but sequences pictures correctly.
2	Gives very little information and has most pictures correctly.
1	Gives no correct information and no pictures correct.

Bibliography

- Ada, Alma Flor. *A Rose With Wings*. Santillana Publishing Co., Inc., Miami, FL, 1993.
Story of a young boy choosing his favorite animal. He finds a caterpillar and watches it change to a butterfly.
- Ada, Alma Flor. *I'll Tell You Something*. Santillana Publishing Co., Inc. Miami, FL, 1995.
Book of poetry and verses by multicultural authors.
- Ada, Alma Flor. *Olmo and the Blue Butterfly*. Santillana Publishing Co., Inc. Miami, FL, 1995.
A small boy sees a butterfly in his room and follows everywhere and by all kinds of transportation.
- Beckman, Cheryl, Roberta Simmons, and Nancy Thomas. *Channels to Children*. Published by Channels to Children, Colorado Springs, CO, 1982.
A guide to activities for Early Childhood students.
- Cassie, Brian and Jerry Pallotta. *The Butterfly Alphabet Book*. Charlesbridge Publishing, Watertown, MA, 1995.
This book follows the alphabet using names and descriptions of butterflies.
- Dunn, Gary. *Describe Mariposas*. Publications International, Lincolnwood, IL, 1992.
Book about the world of butterflies and metamorphosis. Beautiful pictures.
- Grifalconi, Ann. *Darkness and the Butterfly*. Little, Brown, and Company, Printed in Italy, 1987.
The story of a little girl overcoming her fear of the night with the help of a butterfly.
- Heiligman, Deborah. *From Caterpillar to Butterfly*. Scholastic, Inc., New York, 1996.
The story follows the development of a butterfly through a cute story taking place in a classroom.
- Ruvalcaba, Carlos. *La Mariposas Bailarina*. Santillana Publishing Co., Inc., Miami, FL, 1995.
Tale based on the migration of the Monarch butterfly. The moon becomes spellbound by Lucero, the butterfly ballerina. The moon makes her a star and she guides the many butterflies on the migratory journey to Mexico.
- Taylor, Lynn and David Cooper. *The Pocket Book*. David Cooper and Lynn Taylor, 1989.
An integrated curriculum around themes and literacy.
- Denver Public Schools Early Childhood Curriculum Guide Book*
Themes and activities based on literature.

About the Author

Deborah Francis received her Masters Degree in Curriculum and Instruction, specializing in creative arts, from Lesley College in Boston. Her Bachelor of Arts in Early Childhood Education (with an emphasis in language arts) is from the University of Northern Iowa.

Deborah has taught Early Childhood in the Denver Public Schools for the past 12 years. Previously she taught kindergarten and second grade, and was the director of a day care facility for the Department of Defense Mapping Agency in Glen Echo, Maryland.

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