PROGRAM OVERVIEW

“The Cycle of Life” is an innovative approach to learning, comprehension, and retention, based on a hands-on approach to the various life cycles of plants and animals. Students are given the opportunity to interact with their plant or animal in a group environment and learn every component of the life cycle of their plant or animal from species origin, animal and plant development, and more importantly; how to care for their plant or animal.

“The Cycle of Life” program is designed specifically for a class of approximately 20 kindergartners, but can easily be adapted and modified for other grade levels to provide an even deeper look into the intricate lives of various plants and animals. This program is designed to be preformed in the classroom with no other outside facility required.

This program focuses on reading, writing, math, and science comprehension through the use of meaningful hands-on experiences. A vast majority of the program is centered around group participation and interaction, which allows students of all abilities to meet individual academic hurdles through the use of a “team” environment. Because this program is so versatile in nature, it can easily be adapted to cater to English as a Second Language students as well as Inclusion Students. “The Cycle of Life” awards students the rare opportunity to become active learners by incorporating every aspect of meaningful and effective knowledge retention through hands-on activities. The program also assists to reinforce skills already learned through the use of mass participation.

In my years as an education professional, I can personally attest that no single student learns or retains information at the same pace or in the same way as his/her peer. Because “The Cycle of Life” is so dynamic in its design and concept, students of all abilities and skills will inherently find a component of the program in which they excel, often times forgetting that they are even learning!

During “The Cycle of Life”, students care for and hatch tadpoles, caterpillars, and lady bugs as well as different types of plants. During “The Cycle of Life”, students will continue to build on components of their education such as reading, writing, vocabulary, sight words, and journal writing while also learning new skills like problem solving and critical skills thinking.

OVERALL VALUE

This program is an innovative approach to teaching the life cycle. It is amazing how the smallest experiment can become the biggest motivator to the students. Throughout this program the students build on their vocabulary and it inherently becomes a part of their everyday conversations. I love hearing the students discuss different problems and solutions in the life cycle process.

I have been teaching this program in my classroom for the past three years and every year I find something new and exciting about my students’ learning abilities through this unique learning experience. In my opinion, there is not a better learning experience than a hands-on one.

LESSON PLAN TITLES

• From Seed to Plant
• Telling Time with the Grouchy Ladybug
• Put us in Order

*Other lessons can be adapted into these lessons to create a larger unit of the program

MATERIALS

Materials for each lesson are listed with each lesson plan. Overall materials budget including pricing and vendors follows the lesson plan.

ABOUT THE DEVELOPER

Marci Bocanegra has a Bachelor of Science in Elementary Education from Florida Southern College. She graduated with highest honors. She has taught kindergarten for the past 6 years and is currently teaching kindergarten at South McKeel Academy.
**SUBJECTS COVERED**
Science, Reading and Writing

**GRADES**
Kindergarten, but easily adapted to primary grades

**OBJECTIVES**
1. The students will write and illustrate various journal entries throughout the unit. The students will study and recall various facts about the life cycle of a plant.
2. The student will identify, analyze, and apply knowledge of the elements of a variety of nonfiction, informational, and expository text to demonstrate an understanding of the information presented.
3. The students will recall relevant vocabulary and be able to describe the meanings of each term.
4. The students will label the parts of a plant and its life cycle.

**VOCABULARY**
- Plants
- Sunlight
- Soil
- Water
- Air
- Seeds
- Roots
- Petals
- Stem
- Leaves

**SUNSHINE STATE STANDARDS**
- SC.K.N.1.5 The student describes patterns of structure and function in living things.
- LA.K.2.2.2 The student will retell important facts from a text heard or read.
- LA.K.3.1.2 The student will prewrite by drawing a picture about ideas from stories read aloud or generated through class.
- LA.K.4.1.2 The student will create narratives by drawing, dictating, and/or using emergent writing.
- LA.K.4.2.1 The student will participate in creating a variety of informational/expository forms (e.g., labels, lists, graphs, observations, summaries) through drawing or writing.

**MATERIALS**
- Paper (journal)
- Pencils
- Crayons
- Unitedstreaming.com (The Life Cycle of a Plant)

**Teacher will need:**
- A Seed Grows: My First Look at a Plant’s Life Cycle by Pamela Hickman and Heather Collins
- Various nonfiction books on plants and plant life cycles.
- Enlarged version of the journal for modeling.

**DIRECTIONS**
In a whole group setting, introduce the students to the life cycle of a plant by reading various books and looking at models. Read A Seed Grows: My First Look at a Plant’s Life Cycle by Pamela Hickman and Heater Collins. Discuss with the students the basic needs of a plant and what it requires to grow. As a whole group make a list of the different needs of a plant in order to grow. (i.e., water, soil, sunlight, and air). Start a class discussion by asking the students different scenarios such as “What will happen if a plant does not have enough sunlight?” or “Would a plant grow without water?”

Explain to the class that each student will have their own seed that they will care for and observe growing. They will record each day in their “From Seed to Plant” journal what changes they saw. Have the students discuss with a friend what they think will happen to their seed and estimate how long it will take their seed to turn into a plant.

After the students have had a chance to discuss what they have learned, model on the enlarged teacher journal drawing and writing a list about what was just learned. You may want to draw a picture of a flower and label its parts. (Make sure the students are using a lot of details such as soil, water, and sunlight) After drawing a picture as a class dictate and model what should be written. An example of this would be “A plant grows from a seed to a plant. A seed needs water, soil, sunlight and air to grow.”

After finishing the modeled journal entry, pass out the students’ journal and ask them to complete their first journal entry. The students should work on their journal entry independently.
“The Cycle of Life”  Marci Diaz-Bocanegra  
Lesson Plan No 1: From Seed to Plant

■ EVALUATION/ASSESSMENT

The teacher will use the students’ journal entries to determine whether or not the students writing met the objectives. The teacher will use the rubric to grade the students work according to the standards and objectives.

■ EXTRA ACTIVITIES / WORKSHEETS

• The Tiny Seed (Teachers Helper)
• Seed to plan Sequencing (Teacher Created Materials, Inc.)
• Grow, Grow, Above and Below (Macmillan Early Science Activities)
• Where Do I Grow? (Macmillan Early Science Activities)
• Matching Seeds (Macmillan Early Science Activities)
• Plants With Pizzazz (The Mailbox)
• The Story of a Seed (Macmillan Early Science Activities)
• Plant Log (Macmillan Early Science Activities)
• My Experiment (Macmillan Early Science Activities)
• Plants Booklet (Teacher’s Helper)
• Sunflower House Sequencing (Teacher’s Helper)
• Farmer Fred Explains Plant Growth (Teacher’s Helper)
• Plant Scramble (Teacher Created Materials)
• Plant Parts Puzzle (Macmillan Early Science Activities)
• What’s Missing? (Macmillan Early Science Activities)
• Plant Needs (Frank Schaffer)
• The Root of It (Macmillan Early Science Activities)
• What do Plant’s Need? (Macmillan Early Science Activities)
• Plants Grow From Seeds (Frank Schaffer’s Primary Club)
• Paper Cup Gardens (Teacher’s Helper)
• The Story of a Seed (TIME for Kids)
• Plants We Eat (TIME for Kids)
• Plants Science Mini Books (Frank Schaffer Publications Inc.)

★★★★
My Plant Journal

Name: ________________________________

Date: ________________________________

I see ______________________________________

_________________________________________

_________________________________________

_________________________________________

_________________________________________

This is how it looks:

Date: ________________________________

I see ______________________________________

_________________________________________

_________________________________________

_________________________________________

_________________________________________

This is how it looks:
**SUBJECTS COVERED**
Matn & Reading (Technology)

**GRADES**
Kindergarten, but easily adapted to primary grades

**OBJECTIVES**
1. The students will tell time to the hour and half hour.
2. The students will demonstrate and understand the concept of time.

**VOCABULARY**
- Clock
- Analogue
- Digital
- Hands (minute and hour)
- Arrow
- O'clock
- Time
- Hour
- Clockwise
- Counter-clockwise

**MATERIALS**
- Paper
- Pencils
- Grouchy Ladybug Clock Worksheet
  (worksheet can be found at this website: http://www.vickiblackwell.com/ladybugclock.pdf)

**SUNSHINE STATE STANDARDS**
MA.K.G.5.1 The student will demonstrate an understanding of the concept of time using identifiers such as morning, afternoon, day, week, month, year, before/after, shorter/longer.

L.A.K.1.6.1 The student will use vocabulary that is introduced and taught directly.

**DIRECTIONS**
The Very Grouchy Ladybug is an excellent recourse for teaching the concept of time. Before reading *The Grouchy Ladybug* by Eric Carle, discuss the importance of time. Explore many questions such as “Why do we need to tell time?” and “What would happen if we couldn’t tell time?” Also, discuss various conflict and resolution scenarios such as “What would happen if you were late for school?” and “What would happen if the bus was late to pick you up from your house?”

While reading *The Grouchy Ladybug*, set the analog clock to the time the ladybug meets the first animal in the story. While reading the story, point out to the students that the time increased by one hour on every page. Have the students predict what time it will be when the Grouchy Ladybug meets the next animal and have them show it on the analog clock.

After reading the story, have the student make their very own Grouchy Ladybug Analog Clock. Have the students answer questions by showing the time they complete various task during the day on their Grouchy Ladybug Clock. For example: “What time of the day do you eat breakfast?” and “What time of the day do you go to bed?”

**EVALUATION/ASSESSMENT**
The teacher will use the telling time worksheet to evaluate if the student has mastered the standard and objectives. The teacher will also use the rubric guidelines and assess using his/her own judgment.

**EXTRA ACTIVITIES / WORKSHEETS**
- Grouchy Ladybug Sequencing Cards (www.PreschoolPost.com)
- Liza Ladybug (Frank Schaffer Publications, Inc.)
- Helpful or Harmful (Teacher Created Materials)
- Insect Chart (Teacher Created Materials)
“The Cycle of Life” Marci Diaz-Bocanegra
Lesson Plan No 2: The Very Grouchy Ladybug - Addl Information
With the extra time cards you can make up your own animals for the Grouchy Ladybug to visit. Make sure you remember to draw what time it is.

Add these animals to your story in the right spot!
“The Cycle of Life”  Marci Diaz-Bocanegra
Lesson Plan No 3: Put Us in Order

SUBJECTS COVERED
Math, Science, Writing, and Language Arts

GRADES
Kindergarten, but easily adapted to primary grades

OBJECTIVES
1. The students will identify the characteristics of different plants and animals.
2. The students will put the life cycles of different animals and plants in order.

SUNSHINE STATE STANDARDS
LA.K.1.6.6 The students will relate new vocabulary to prior knowledge.
LA.K.1.7.3 The students will retell the main idea or essential message, identifying supporting details (e.g., who, what, when, where, why, how), and arranging events in sequence.
LA.K.1.6.1 The student will use vocabulary that is introduced and taught directly.
LA.2.3.2.2 The student will draft writing by organizing details into a logical sequence that has a clear beginning, middle, and end and awareness of the audience.

MATERIALS
- Paper
- Pencils
- Glue
- Scissors
- Sequencing Cards (www.enchantedlearning.com)
- Unitedstreaming.com

Teacher will need:
- Books and resources on the life cycles of plants, ladybugs, butterflies, and frogs.
- Copies of the sequencing cards

DIRECTIONS
This lesson is mostly geared to partner work in the classroom. The teacher will read various books on the life cycles of plants as well as animals (butterflies, ladybugs, and frogs). After reading the books, as a whole group the teacher will direct a class discussion about the different lifecycles more in depth. The class will then organize the sequencing cards and talk about the different stages of development while placing them in order.

After the teacher directed learning, have the students go back to their desk and hand out the sequencing cards. As a team the students should paste the cards in order and write a short sentence describing the card. An example of a sentence might be, “The first stage of a plants life is a seed”.

EVALUATION/ASSESSMENT
The teacher will look at the students work to see if they have correctly placed the sequencing cards in order. Using the rubric the teacher will grade the students work. The teacher will also use judgment to evaluate whether or not the students worked together as a team.

SUBJECTS COVERED: Math, Science, Writing, and Language Arts
GRADES: Kindergarten, but easily adapted to primary grades
OBJECTIVES:
1. Identify characteristics of different plants and animals.
2. Put life cycles of different animals and plants in order.

SUNSHINE STATE STANDARDS:
LA.K.1.6.6 Relate new vocabulary to prior knowledge.
LA.K.1.7.3 Retell main idea or essential message, identifying supporting details, and arranging events in sequence.
LA.K.1.6.1 Use vocabulary that is introduced and taught directly.
LA.2.3.2.2 Draft writing by organizing details into a logical sequence.

MATERIALS:
- Paper
- Pencils
- Glue
- Scissors
- Sequencing Cards (www.enchantedlearning.com)
- Unitedstreaming.com

Teacher will need:
- Books and resources on the life cycles of plants, ladybugs, butterflies, and frogs.
- Copies of the sequencing cards

DIRECTIONS:
This lesson is mostly geared to partner work in the classroom. The teacher will read various books on the life cycles of plants as well as animals. After reading the books, the teacher will direct a class discussion about the different lifecycles. The class will then organize the sequencing cards and talk about the different stages of development while placing them in order.

After the teacher directed learning, have the students go back to their desk and hand out the sequencing cards. As a team, the students should paste the cards in order and write a short sentence describing the card. An example of a sentence might be, “The first stage of a plant’s life is a seed.”

EVALUATION/ASSESSMENT:
The teacher will look at the students’ work to see if they have correctly placed the sequencing cards in order. Using the rubric, the teacher will grade the students’ work. The teacher will also use judgment to evaluate whether or not the students worked together as a team.

2010 - 2011 IDEA CATALOG OF EXCELLENCE
**Adult**

The larva is also called the caterpillar. It molts (sheds its skin) many times as it grows.

**Larva**

**Pupa**

The pupa is also called the chrysalis.

**Egg**

Eggs are usually laid on the underside of a leaf.

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**Eggs**
Eggs are laid in masses in or very near the water.

**Frogllet**
The frogllet still has remnants of a tail, but now breathes using lungs.

**Tadpole**
The tadpole swims in the water and breathes using gills.

**Adult Frog**
**Larva**
The larva molts (sheds its skin) many times as it grows. The larval stage lasts 2 to 4 weeks.

**Eggs**
Tiny yellow eggs are laid on leaves. They hatch in 3-7 days.

**Adult**
Adults live for a few months.

**Pupa**
This stage lasts 5 to 7 days.
Sprouting Seed

Seed...

the soil's surface

the soil's surface

Plant with Bud
Buds will grow into flowers.

Plant with Flowers
Fertilized flowers produce new seeds.

the soil's surface

the soil's surface

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# Materials Budget

<table>
<thead>
<tr>
<th>SUPPLIER</th>
<th>ITEM DESCRIPTION</th>
<th>COST</th>
<th>QUANTITY</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lakeshore</td>
<td>Life Cycles Themed Box - Item # FF949</td>
<td>$49.99</td>
<td>1</td>
<td>$49.99</td>
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<td></td>
<td>Watch it Grow Window Greenhouse - Item # RR469</td>
<td>$49.95</td>
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<td>$49.95</td>
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<tr>
<td>Insect Lore</td>
<td>Butterfly Garden - Item # 101</td>
<td>$19.99</td>
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<td>$19.99</td>
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<td></td>
<td>Frog Hatchery Kit - Item # 888</td>
<td>$39.99</td>
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<td>$39.99</td>
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<tr>
<td></td>
<td>Frog Life Cycle Stages - Item # 2610</td>
<td>$5.99</td>
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<td>$5.99</td>
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<td></td>
<td>Ladybug Land - Item # 210</td>
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<td></td>
<td>Ladybug Life Cycle Stages - Item # 609</td>
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<td>$5.99</td>
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Subtotal: $191.95

**Tax if applicable**

Shipping if applicable (approx.) $6.00

**TOTAL BUDGET AMOUNT**

$197.95

Teacher’s Name: **Marci Diaz-Bocanegra**

School: **South McKeel Academy**
Lesson Plan #1 Rubric:

*From Seed to Plant*

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<tbody>
<tr>
<td>The student will write and illustrate journal entries regarding the development and care of the plant.</td>
<td>Journal entry is poorly organized and the student shows very little knowledge of the parts and the life cycle of a plant.</td>
<td>Journal entry is labeled and the student demonstrates a basic knowledge of the parts and life cycle of a plant.</td>
<td>Journal entry is correctly labeled and the student demonstrates an extensive knowledge of the parts and life cycle of a plant.</td>
<td></td>
</tr>
<tr>
<td>The student will recall and define vocabulary that is relevant to the plants life cycle.</td>
<td>Student can recall and define only a few vocabulary words.</td>
<td>Student can recall and define most of the vocabulary words.</td>
<td>Student can recall and define all of the vocabulary words.</td>
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</tbody>
</table>
Lesson Plan #2 Rubric:
*Telling Time with the Grouchy Ladybug*

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<tbody>
<tr>
<td>The student will complete</td>
<td>Worksheet is not completed and only a few of the time problems are correct.</td>
<td>Worksheet is complete with 75% accuracy and a basic knowledge of the parts of the clock and times in which certain events occur.</td>
<td>Worksheet is completed with 100% accuracy and the student demonstrates an extensive knowledge of the parts of a clock and times in which certain events occur.</td>
<td></td>
</tr>
<tr>
<td>The student will recall and define vocabulary that is relevant to the parts of a clock and terms relating to time.</td>
<td>Student can recall and define only a few vocabulary words.</td>
<td>Student can recall and define most of the vocabulary words.</td>
<td>Student can recall and define all of the vocabulary words.</td>
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## Lesson Plan #3 Rubric: Put Us in Order

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<tbody>
<tr>
<td>The student will put the life cycles of different animals and plants in order using sequencing cards from enchanted learning website.</td>
<td>Sequencing Cards are not completed and only a few of the time problems are correct.</td>
<td>Sequencing Cards are not completed with 75% accuracy and a basic knowledge of the parts of the clock and times in which certain events occur.</td>
<td>Sequencing Cards are not completed with 100% accuracy and the student demonstrates an extensive knowledge of the parts of a clock and times in which certain events occur.</td>
<td></td>
</tr>
<tr>
<td>The student will recall and define vocabulary that is relevant to the parts of a clock and terms relating to time.</td>
<td>Student can recall and define only a few vocabulary words.</td>
<td>Student can recall and define most of the vocabulary words.</td>
<td>Student can recall and define all of the vocabulary words.</td>
<td></td>
</tr>
</tbody>
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“The Cycle of Life” Marci Diaz-Bocanegra
Extra Activities

Extra Activities / Activities:

• The Very Hungry Caterpillar (Literature Notes)
• Caterpillars (Frank Schaffer Publications, Inc.)
• Butterflies are Colorful (Frank Schaffer Publications, Inc.)
• A Butterfly is Born (Teacher Created Materials)
• Butterfly Life Cycle Pattern and Word Cards (The Mailbox)
• Much Ado About Bugs
• Ladybug and Friends
• Perfect Parts (Teacher’s Helper)
• Butterflies Visit (Weekly Reader Volume 74 Issue 22)