## **DAY 1- O**

GLCE: L.OL.E.2 Life Cycles- Plants and animals have life cycles. Both plants and animals begin life and develop into adults, reproduce, and eventually die. The details of this life cycle are different for different organisms.

# Time Needed: 10:00 – 10:30 Description

Opening: Begin the lesson by explaining to the students that we are going to be studying life cycles. I will ask students what they think a life cycle is and ask for volunteers to share. Then I will give them the definition of what a life cycle is. I will also show them the caterpillars that I ordered and how we will be watching them go through their entire life cycle.

Lesson: I will show students pictures of animals when they were younger or babies and show the adult version of the animal. I will start out by explaining that a life cycle is about how things grow and change. I will explain to the students that when living things are born and grow up they resemble their parents. I will also give non-examples of babies not resembling parents (ex. will a baby chick grow up to be a cat? Why or why not?) I will show them pictures of other baby animals and the adult version.

Next, I will draw a diagram on the

### **DAY 2- O**

GLCE: L.OL.01.21 Describe the life cycle of animals including the following stages: egg, young, adult; egg, larva, pupa, adult.

**L.OL.E.2** Life Cycles- Plants and animals have life cycles. Both plants and animals begin life and develop into adults, reproduce, and eventually die. The details of this life cycle are different for different organisms.

# **Time Needed:** 10:00 – 10:45 **Description**

Opening: Start the lesson by asking the students why a caterpillar turns into a butterfly but they don't? I will ask a few students to share their ideas and we will discuss them as a class. Then we will review what we learned yesterday in that most living things resemble their parents and what the life cycle of living things are. Then I will explain that we are going to learn about the life cycle of butterflies and how we will watch the life cycle with our caterpillars.

Lesson: I will have the live caterpillars at the front of the room with me as I teach the lesson. I will begin the lesson by asking the students why caterpillars do not resemble their parents (they don't look like a butterfly right now)? After a few students share their ideas, I will read them the big book "Butterflies" and have them look carefully at the pictures.

## **DAY 3- O**

GLCE: L.OL.01.21 Describe the life cycle of animals including the following stages: egg, young, adult; egg, larva, pupa, adult.

**L.OL.E.2** Life Cycles- Plants and animals have life cycles. Both plants and animals begin life and develop into adults, reproduce, and eventually die. The details of this life cycle are different for different organisms.

# **Time Needed:** 10:00 – 10:45 **Description**

Opening: I will start the lesson out by asking the students what they know about life cycles and if they can give me detail about the life cycles as they share them with me. I will write down the things they know on a piece of chart paper. Then I will ask the students if they can give me any examples of life cycles that they have seen or they know about and have students share with the whole class.

Lesson: After we share what we know about life cycles, I will explain how the class next door has tadpoles. Then I will ask the students if they know what tadpoles are and what they think they grow into. Then, I will show them the live tadpoles from the other room. I will read the big book "Frogs", which has great big pictures of each stage of the life cycle. This will give students an idea of what they start out as and how they grow up.

## **DAY 4- O**

GLCE: L.OL.01.21 Describe the life cycle of animals including the following stages: egg, young, adult; egg, larva, pupa, adult.

**L.OL.E.2** Life Cycles- Plants and animals have life cycles. Both plants and animals begin life and develop into adults, reproduce, and eventually die. The details of this life cycle are different for different organisms.

# **Time Needed:** 10:00 – 10:45 **Description**

Opening: I will start the lesson out by asking the students what they have learned about life cycles already. Then I will ask them if they think other animals besides butterflies and frogs have life cycles and why they think that way. I will explain that other animals and living things do have life cycles and that we are going to learn about that today.

Lesson: I will show the students the picture of a sunflower seed and a sunflower plant. I will ask the students if they think it is possible for the seed to grow into a sunflower and ask them why they think that way. After a few students share their ideas I will explain to them that plants start out as seeds. I will explain and show the students pictures of each stage of the life cycle of a plant and flower. Also, I will give them another example using humans.

Once we are done going over the

board and explain that a living thing starts out as a baby, grows into an adult, that adult can then have babies, and then explain that when a living thing goes through its life cycle it then dies. I will provide them with examples of the cycle.

After I explain and show students the life cycle they will then go back to their seats and do the worksheet that I made for them in which they have to match the baby animal to the picture of what it will look like when it is an adult.

Closure: Review with the students what a life cycle is and that animals resemble their parents. Then I will ask students what the life cycle is (living thing is born, grows up, adult has babies, and then dies.)

#### Assessment

The worksheet will serve as an informal assessment to whether the students understood the lesson and were able to match the baby animals to the adult version. If the students can match the baby to the adult that tells me that they understand that a baby does resemble the adult and that they have similar features. Also, I will informally assess the students based on their responses to the questions that I ask. It will let me know if they are getting the concept or if I need to provide more examples or include a different way of explaining it.

After we read the story I will draw a diagram on some chart paper and explain that there are four stages of the butterfly's life cycle. I will ask the students what they think the first step in the cycle is. As students volunteer I will provide feedback. If students do not get the right answer I will show them the pictures from the big book to point them in the right direction. I will draw a picture of the eggs and label it. Then we will go through each step in the life cycle doing the same thing.

After we go through the steps of the life cycle I will have the students go back to their seats and do the worksheet in which they will draw the pictures of the cycle and label each stage of the cycle. Also, I will ask the students which stage they think the butterfly is in right now.

Closure: When the students are done with the worksheet I will have them go to the back of the room by rows to observe the caterpillars. I will have them draw a picture of their observations and ask them if they notice a difference in them from the previous week, if so what the difference is. As they are working I will have them make predictions in what they think will happen next to the caterpillars.

\*\*Each time we do science the students will observe the stage that the caterpillars are at and will write a sentence about how they changed and will make a life cycles book.\*\* After we are done reading the story I will draw the life cycle diagram on the chart paper. I will ask the students what they think the first stage of the life cycle is. I will draw a picture of it and write the label above it. We will do this for each stage of the life cycle of the frog. Then I will ask the students which step they think that the frogs are in right now.

After we finish drawing the life cycle of a frog I will have the students go back to their seats and complete the life cycle of the frog on their own. They will have to draw pictures and label each step in the cycle.

Closure: When the students are done with their life cycles worksheet about the frogs they will go to the back of the room to observe what stage our caterpillars are in (chrysalis). I will ask them to draw a picture of what they observe and to write a sentence or two about what has changed since the last time they drew their picture in their book (caterpillar stage.) I will have the students make predictions to what they think might happen next to the caterpillars.

#### Assessment

I will informally assess the students based on their worksheet in that they drew each stage of the life cycle in the proper order and labeled it correctly. If students are having difficulty I will stop the worksheet activity and reteach the lesson and give them the worksheet at a later time. Also, I will

human and plant life cycle I will reiterate that <u>all</u> living things have a life cycle.

Closure: To close the lesson I will have the students do their final page in their butterfly life cycle book, in which they have to observe the final stage of the life cycle and draw a picture of it and write about how the chrysalis is different from the butterfly. When they are done they will color their picture and bring it over to me in which I will staple all their pages together.

#### Assessment

I will informally assess the students in that they have completed their books correctly in which they have the correct labels and order of their pictures. Also, I will informally assess the students in the responses that they provide to my questions that I ask when I am reviewing the life cycles. Also, I will informally assess the examples that the students give me when I ask them what other animals or living things have life cycles.

#### **Instructional Model (5Es)**

**Engage**: Students will activate their current knowledge of life cycles.

**Explain:** I will encourage students to use their experiences from watching the tadpoles and caterpillars grow and apply it to plants and humans. I will allow students to compare these

## **Instructional Model (5Es)**

**Engage**: Students will be engaged with the lesson when I ask them what they already know about life cycles to activate their prior knowledge. Also, when I show them the caterpillars that we will have in the classroom will engage them into the lesson.

**Explain:** I will do a lot of explaining on the first day to describe life cycles and what they are with examples. Students will explain the concepts in their own words and be able to discuss the concepts as a group.

**Evaluate**: I will evaluate the students worksheet in order to gage if they understood the main concept and objectives of the lesson. If they did not I will go back and re-teach parts of the lesson.

#### Assessment

I will informally assess the students based on their worksheet in which they have to draw and fill in the label of the life cycle. If they have a difficult time with it, I will go back and re-teach the material and give them the worksheet at a later time. Also, I will be informally assessing the students' responses that they provide to the questions that I ask. This will help me gage their understanding of the concepts and the life cycle of the butterfly.

#### Instructional Model (5Es)

Engage: The questions at the beginning will spark the students' interest. Also, having the live caterpillars at the front of the room will keep them interested in observing what they are doing and be able to apply what I am teaching them about.

**Explore:** Students will be able to observe the caterpillars and predict what will happen to them next as we are learning about the life cycle. This will allow the students to have a common set of experiences; because they all get to watch the caterpillars grow and eventually turn into butterflies.

**Explain:** By asking the students to assist me in filling in the life cycle it will help them express their understandings of how the caterpillar grows. Also, students will be able to

be informally assessing their responses to the questions that I ask throughout the lesson to make sure that they are on task and understanding the life cycle of frogs. When the students are observing the caterpillars in the back of the room I will be circulating the room and looking over the books that they have made so far and if they are drawing their observations correctly (ex. not drawing a caterpillar when they should be drawing a chrysalis) and writing the correct stage of the life cycle.

### **Instructional Model (5Es)**

Engage: Students will activate their prior knowledge when asked what they already know about life cycles. As they share they will be expressing their current understandings of the life cycle. Also, it will get them to ask themselves what they already know about the topic.

**Explore:** Students will see the live tadpoles in the room and will show them that what we are learning about is relevant. Also, by watching the tadpoles grow into frogs will serve as a common set of experiences for the students to have. Even though we will not have the tadpoles in our room, we will be visiting the tadpoles in the other room.

**Explain:** Students will be introduced to the scientific terminology that goes with life cycles and the specific

animals' life cycles to that of humans and plants. Students will learn new scientific terminology of the life cycle of plants and humans. The students will explain the main ideas in their own words and have conversations with other students in the class about the topic.

Elaborate: I will elaborate on life cycles in that I will give them some examples that they may not be aware of that have life cycles, such as plants. This will focus their attention on the fact that all living things have a life cycle. Also, the students will be using scientific terms and communicate their understandings of the life cycles in a group discussion. They will also, connect their knowledge of life cycles of frogs and butterflies to the life cycle of plants and humans.

Evaluate: I will evaluate the final product of the students' butterfly life cycle book. Students will base their explanations on evidence that they have learned from their previous observations of our caterpillars. Also, I will have students go back to make sure that their pages are correct and in the right order. This will show me that they fully understand the life cycle of a butterfly and know what each stage looks like and the scientific term for it.

share ideas with the whole class, which allows them to compare ideas with each other and describe them. Also, students will be introduced to the scientific terminology such as pupa or larva and will be able to use those terms when talking about living things' life cycles.

Evaluate: I will evaluate the students' life cycle worksheet that they do independently. This will let me know if they know and understand the life cycle and can create a picture of what that stage of the cycle looks like. Also, the life cycle book that they are going to continue to work in will serve as an evaluation that they understand the life cycle and what is happening to our caterpillars in the room.

animals that we are observing. Also, students will be part of a whole class discussion about the life cycle of the frog and create a diagram of it. In this diagram they will show that they understand the order of the stages and that they know what that specific stage looks like.

**Elaborate:** I will elaborate on the life cycle of the frog and the butterfly and make connections between the experiences of watching both of them grow. Also, they will compare their prior knowledge to what they know now by making a book on the life cycle of a butterfly. The book they make will have scientific terms and will encourage them to use those terms when talking about life cycles. The students will be using what they learned from the butterfly life cycle and apply it to the frog life cycle. When the students are asked what stage the frog is in and predict the next stage of the cycle.

Evaluate: Students will be evaluated by the worksheet they complete of the frogs life cycle. I will be looking for them to use scientific terms, stages in the correct order, and drawings resemble the corresponding stage of the cycle. Also, students will be evaluated on their butterfly life cycle book in that they are drawing the correct stage of the cycle, and using the correct scientific terms.

### **DAY 2- ELABORATED LESSON PLAN**

#### Learning Goals:

- Students will be able to describe a butterfly's life cycle and use the correct scientific terms
- Students will be able to understand what a life cycle is and that all living things have one

#### Description of day:

Students will be introduced to our caterpillars and will learn about how they will grow and what change they will undergo. I will read a big book that will provide photographs of each stage of the cycle, and I will explain what those stages are and what happens. At the end of the lesson students will draw the life cycle and label it using the correct scientific terms, and draw pictures in the corresponding stages.

#### Instructional Sequence and Lesson Function:

This lesson fits a lot into the exploration part of the 5E Instructional Model, in that students will be able to observe the caterpillars and the pictures that are provided in the big book. Also, students will be explaining what stage the caterpillars are in and how they know, and will predict what will happen next to the caterpillar.

#### Supplies/resources:

Caterpillars, chart paper, markers, butterfly life cycle worksheet, big book, pencils and crayons

#### Activities:

The first activity will be for the students to share their ideas in why they think that people cannot turn into butterflies but caterpillars can. This will get them engaged and talking about the topic.

The next activity will be to observe the live caterpillars that we have and discuss what they are doing, how they are moving, and why they are moving in the way they are.

The third activity will be to read the big book about butterflies and draw the life cycle together as a group and use the scientific terms.

The last activity will be for the students to complete a butterfly life cycle worksheet in which they have to label and draw each stage.

#### Lesson Flow:

Opening: Start the lesson by asking the students why a caterpillar turns into a butterfly but they don't? I will ask a few students to share their ideas and we will discuss them as a class. Then we will review what we learned yesterday in that most living things resemble their parents and what the life cycle of living things are. Then I will explain that we are going to learn about the life cycle of butterflies and how we will watch the life cycle with our caterpillars.

Lesson: I will have the live caterpillars at the front of the room with me as I teach the lesson. I will begin the lesson by asking the students why caterpillars do not resemble their parents (they don't look like a butterfly right now)? After a few students share their ideas, I will read them the big book "Butterflies" and have them look carefully at the pictures.

After we read the story I will draw a diagram on some chart paper and explain that there are four stages of the butterfly's life cycle. I will ask the students what they think the first step in the cycle is. As students volunteer I will provide feedback. If students do not get the right answer I will show them the pictures from the big book to point them in the right direction. I will draw a picture of the eggs and label it. Then we will go through each step in the life cycle doing the same thing.

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After we go through the steps of the life cycle I will have the students go back to their seats and do the worksheet in which they will draw the pictures of the cycle and label each stage of the cycle. Also, I will ask the students which stage they think the butterfly is in right now.

Closure: When the students are done with the worksheet I will have them go to the back of the room by rows to observe the caterpillars. I will have them draw a picture of their observations and ask them if they notice a difference in them from the previous week, if so what the difference is. As they are working I will have them make predictions in what they think will happen next to the caterpillars.

Transition: I will explain to students that we will continue to observe our caterpillars each day and that it is time to clean up. If they did not finish their worksheets they will finish them during bathroom breaks and that it is time to get ready for our reading groups. I will ask some of them to remember if they read the unit that teaches them about a butterfly and tell them that I will ask them about it when they get back from reading.

Student worksheets: Since I have not taught the lesson yet, I do not have any student work available at this time.

### Adaptations and community concerns:

I do have a few students who are very easily distracted. I will keep these students engaged by having them sit near the front of the room so that they can see the caterpillars from where they are sitting and have them participate first. If they are not chosen to participate early in a lesson they tend to lose interest. Also, during our science time our cognitively impaired student is in the room. I will be sure to seat her next to a benchmark student or with one of the girls that she is friends with. That way the other student can model for her what she should be doing. When it is time to work independently I will work with her and other intensive students at a back table. This will provide them with more individualized attention and a smaller group setting.

## **Behavior Expectations:**

I will establish my behavior expectations in the very beginning of the lesson in which students are to have their "listening bodies" on while they are at the carpet, which entails them to sit criss-cross-applesauce, hands in their laps and eyes up front. Also, while any of the teachers are talking, they are not to be talking with their neighbors or shouting out. If they want to share or have a question they are to raise their hands. Also, when students share they are to be respectful. When I show them the caterpillars I will explain that they cannot touch them and they are not to get out of their seats, because I will walk around so that they all get a chance to see them.

Students will be assigned partners on the carpet, because it is easier and it prevents anyone from being left out, and gets them to work with others rather than always working with their same friends. When students go to work independently I will explain that it is a quiet working time. They can talk to the people next to them in a whisper voice, but that it shouldn't get louder than a certain volume. If they get too noisy they will lose a marble in their marble jar and names will be moved on the wall. I will get students attention by doing a rhythmic clap, or counting down from five. This usually works in getting their attention and explaining when it is time to clean up. When it is time to pass out supplies, I will pass the worksheet out, and students have pencils and crayons in their desk. If they do not, they know they can go to be pencil box and retrieve a pencil.

Assessment: My assessment for this lesson will be their worksheet, in which they have to complete the butterfly life cycle by drawing and labeling the correct order. They will have to use the scientific terms that they learned in the lesson and their drawings should resemble the corresponding stage. This will help me evaluate their understanding of the lesson and the life cycle of the butterfly. I will use it to modify the next few lessons. Also, it will help me modify the lessons when they go to observe the butterflies, because I may have to provide more details that day in what they should look for and observe and what they already know about the life cycle. Instead of just having them go to the back of the room and observe, I may have to do a quick mini-lesson on what stage the butterfly is in and how we know and predict what may happen next. I will keep the big book out as a resource to show them the pictures and the cycle, and use to help us see what is happening right now.