

3-LS1-1	Gr. Level: <u>3rd</u>	Creation Date: <u>8/24/2015</u>	Edit Date/Time: <u>12/13/2016 10:13 AM</u>	Writer(s): 1
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## Title: Life Cycles - Compare and Contrast

### Objective:

Develop models to describe that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction, and death.

### Preloading:

Vocabulary: Academic Language - cycle, birth, growth, adult  
 Scientific Language - pupa, reproduction, organisms, species

### English-Learner Scaffolding Focus:

Interaction with students - maximize interaction with all students  
Realia - use realistic representations of items which may present comprehension issues.  
Making Predictions

### Introduction (15 minutes):

Whole-group - one HSE speaking at a time , have students sit on floor together to view screen

Introduce yourself and your group to the class.

*Welcome boys and girls today we are going to explore the life cycles of living things.*

*I want you to watch this short video before we get started. Pay attention to how the organism changes.*

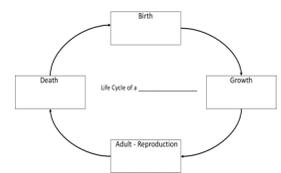
Show Very Hungry Caterpillar on our website edited or <https://www.youtube.com/watch?v=DD5eTSpuBQA>, unedited on Youtube.

*This short story showed most of the life cycle of a butterfly.*

*Let's brainstorm the different stages of life:* (display blank diagram on board)

*Tell your neighbors what you think the first stage of life is. Not just for a butterfly, but for any living thing.*

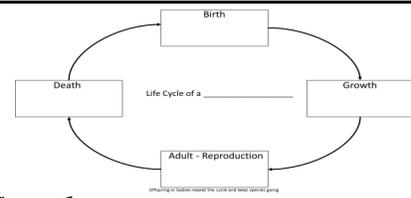
Give a moment Call on a person. "Birth" write it on the board (see in appendix)  
 Keep rectangles blank until arrived at with the group



## Introduction (cont.)

Repeat for remaining stages - take all responses but lead to these. Birth, Growth, Adult-Reproduction, Death

If necessary use these prompts:



***Why do you look different now than when you were a baby? Growth***

***Raise your hand if your dog or cat has ever had puppies or kittens? This is called Reproduction, it happens in the adult stage and it is how baby animals, humans and plants keep surviving as a species.***

***Do living things live forever? What do we call it when they are no longer alive? Death***

Remember to utilize your general prompting techniques from posters if appropriate.

***So now we know that all living things have these stages—birth, growth, reproduction and death.***

***Okay, let's break up into our group to do more exploring into life cycles...Group A over there.....so on***

Individual HSEs speaking to only one group.

***Hi everyone, remember my name is \_\_\_\_\_.***

***We saw that the hungry caterpillar went through some changes in the story.***

***On our table you will see a mat with the four stages that all living things go through.***

***I'm going to give your group models of the life cycle of a butterfly.***

***Using what you learned in the video and what you already know, I'd like the investigator to work with the group to put the pieces in order on the work mat. Only the investigator should be moving the pieces. But you can all help.***

Give group a few minutes to discuss and place their life cycle.

***Reporter, why do you think your investigator chose that model for birth? So on***

If needed ask questions like: So are you saying that this stage comes before pupa?, Is there another order that would make sense? What can you tell about how the size changes?, so on

## Activity - 30 minutes

***Good job group, way to show the life cycle of the butterfly.***

***When all groups have finished with the butterfly life cycle.....***

Whole-group - one HSE speaking at a time , have students stay with their groups.

***Now that we have seen the life cycle of the butterfly, Let's explore some other life cycles on a short clip. As you watch, think about the four stages that all living things have and where what you see fits in.***

Play "Life Cycle Video for Kids" from website.....OF <https://www.youtube.com/watch?v=-pHav-3QZki> ON Youtube.

***What stages did all the cycles have? BIRTH, GROWTH, ADULT-REPRODUCTION, DEATH***

***So they may have had their own look, but they all had these stages.***

Individual HSEs speaking to only one group.—timer for each group

Be sure you have the butterfly model displayed on your work mat in the correct location.

***Okay, I need the recorder to record the cycles that all living things experience, work together to fill them in.***

***You'll notice some questions below the cycles. When your group sees that life cycle, don't forget to work together to answer them! Point to them.***

***Keep your butterfly model in its place, so you can compare the life cycles.***

***Now I'm going to give you another life cycle model. I want you to work together to place the models where you believe they belong. Let's take turns placing the models.***

Pass them the model. HSEs will rotate the models (do not rotate butterfly) from group to group. Plan to spend about 2-3 minutes on each rotation.

***Ask the following with each model: Why did you chose this for the \_\_\_\_\_ stage?***

If you have extra time after placing models on work mat, ask questions such as: How is the growth stage of the butterfly different than the one we just finished? How is birth different? How are they the same?

***Great job group! We're going to trade for another model now. Okay remember to take turns with placing the models.*** Rotate models through the groups in a clockwise fashion, or one that makes sense.

Repeat until finished with all models. Be sure your group has answered questions.

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## Activity - 30 minutes

*Okay, group.....nice job. Now that we have put all the stages in order, we're going to have a little fun.*

*I have two colors of clay. I want to challenge you to create stages of a life cycle for any animal you like. It can be a real or make-believe organism. Remember that it **MUST** have the four stages that all living things have....which are? BIRTH, GROWTH, ADULT-REPRODUCTION, DEATH*

*I want you to talk to your group about this challenge. We'll start with the clay in 1-2 minutes.*

*Okay, let's have the investigator and the materials manager work on the clay stages. Work as a team so you all can describe the stages of your model. Reporter, you will be describing your group's model later.*

Give them about 4-5 minutes to create their model of the stages in the life cycle.

Monitor their work, be sure that they are representing the stages. Ask various members questions like the following: *How would your growth stage look different than the growth stage of a frog? How is your model's birth stage the same as a chicken? How does your organism change from birth to growth?*

## Wrap-up (5 - 10 minutes)

*Whole-group - one 1/3rd speaking at a time, have students stay by their models*

*I see some pretty cool models....I need all reporters to stand up by their model.*

*Go through the groups to have them describe the cycle.* Ex: At birth the animal comes out of an egg. It has two arms and legs but grows one more leg as it grows to an adult. It lays eggs to have babies. In ten years it dies. (be sure to ask questions about the cycle and perhaps how it might be different than a butterfly's cycle)

*Earlier we put lots of stages in order.....you guys did great!*

*I have a few questions to ask the recorders and reporters in our class. Now reporters you may need your group's recorder for this.*

*How was the growth step of the green bean different than the butterfly? All reasonable responses are good!*

*How is a chicken's birth step different than the butterfly's birth step? All reasonable responses are good!*

*How were all the cycle models the same? All had BIRTH, GROWTH, REPRODUCTION, DEATH*

*So we learned that even though the models in the steps may look different, all living things had Birth, Growth, Reproduction, and Death steps.*

Challenge: *If death is part of every living thing, how do animal types (species) continue to survive?*

*If time permits watch this video*

*Thanks and have a great day at Discovery Zone!*

Name: \_\_\_\_\_

### Recording Sheet

1. All living things experience these steps in their life cycle:

\_\_\_\_\_ first \_\_\_\_\_ last

2. How was the butterflies' growth step different than the green beans' growth step?

\_\_\_\_\_

3. How was the butterflies' birth step different than the chicken?

\_\_\_\_\_

4. How are the cycles of all the models alike? \_\_\_\_\_

\_\_\_\_\_

Introduction

Activity

Name: \_\_\_\_\_

### Recording Sheet

1. All living things experience these steps in their life cycle:

\_\_\_\_\_ first \_\_\_\_\_ last

2. How was the butterflies' growth step different than the green beans' growth step?

\_\_\_\_\_

3. How was the butterflies' birth step different than the chicken?

\_\_\_\_\_

4. How are the cycles of all the models alike? \_\_\_\_\_

\_\_\_\_\_

Introduction

Activity

Name \_\_\_\_\_ Test 3-LS4-1

## Student Sheet

Carefully read or listen to the questions. Be sure you read and think about all choices before picking one.

1. Put these stages that all living things have in order from first to last.

first	
next	
next	
last	

Death  
Birth  
Growth  
Adult

2. The birth stage always looks the same for all living things.  
True  
 False
3. How was the growth stage for the frog different than the growth stage for the chicken?

- The frog and the chicken both grew larger and had the same shape than when they were born.  
 The frog's shape changed as it grew larger while the chicken's shape did not change as it grew larger.  
 They were not different, they were the same.  
 The chicken was hatched from an egg and the frog was hatched from an egg too.

**Directions:** Read the question carefully. Write your answer in 2 or 3 sentences.

4. We know that death is part of each living thing's life cycle. If this is true, how do species (types of animals) continue to exist?

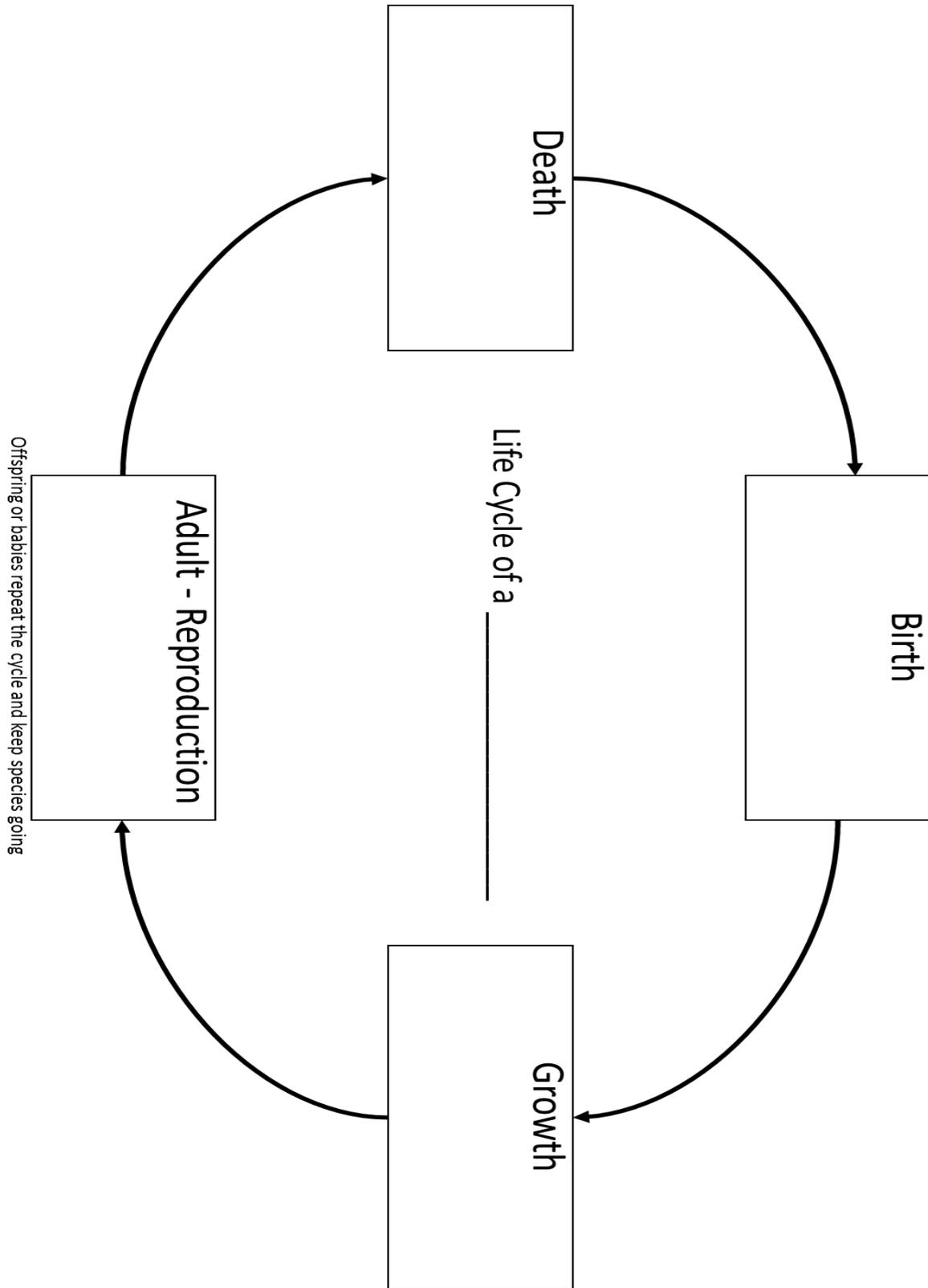
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Work mat for activity—on large poster

		<b>Materials List</b>	Date _____
		Description	Number needed
Introduction -			
1		Work mat	6 ea
		Butterfly life cycle set ( pieces )	6 ea
Activity -			
2		Life cycle models—frog, chicken, ladybug, green bean, turtle, bee	1 of each
3		Clay for modeling—two different colors	2 x 6 ea
4		Various life cycle posters	