

# INCUBATING EDUCATION

Louisiana 4-H Embryology



## Third grade Life Science | Embryology Unit Overview

## Dates Unit to Be Taught:

### Science Standards: 3-LS4-3

Performance Expectation – Construct and support an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

### Science Standard: 3-LS1-1

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

### Science Standard: 3-LS2-1

Performance Expectation – Construct and support an argument that some animals form groups that help members survive.

### Science Standard: 3-LS3-1

Performance Expectation – Analyze and interpret data to provide evidence that plants and animals have traits inherited from their parents, and that variation of these traits exists in a group of similar organisms.

### Science Standard: 3-LS3-2

Performance Expectation – Use evidence to support the explanation that traits can be influenced by the environment.

### Science Standard: 3-LS4-2

Performance Expectation – Use evidence to construct an explanation for how the variation in characteristics among individuals of the same species may provide advantages in survivals, finding mates, and reproducing.

**Investigative Phenomena:** Why are there different color chickens and different color eggs?



## DRIVING QUESTIONS:

1. What do chickens need to survive?
2. Why do chickens build nests?
3. Why are there different colored chickens?
4. Why do chickens live in groups?
5. How can we tell before a chicken hatches what it will look like?

## VOCABULARY TRACKER WORDS FOR DISCOVERY DURING UNIT

### (NOT TO BE USED FOR VOCABULARY TESTING):

- Habitat – Natural home or environment of animal, plant, or other organisms.
- Camouflage – Animal’s natural coloring that enables it to blend in with surroundings
- Natural selection – The process whereby organisms better adapted to their environment tend to survive and produce more offspring.
- Flocks – A number of birds of one kind feeding, resting, or traveling together.
- Prey – An animal that is hunted and killed by another for food.
- Predator – An animal that naturally preys on others.
- Life cycle – The series of changes in the life of an organism, including reproduction.
- Reproduction – The action or process of making a copy of something.
- Variation – A change or difference in condition, amount, or level, typically with certain limits.
- Rooster – Male chicken.
- Hen – Female chicken.
- Chick – Young chicken.
- Coop – A cage or pen for confining poultry.
- Survival – Manage to keep going in difficult circumstances.
- Thrive – Prosper; flourish.

## OBJECTIVES AND UNIT FLOW:

### Day One



- Students will observe pictorial examples of real chickens.
- Students will develop Notice and Wonder charts about personal questions regarding chickens.



### Day Two-Three

- Students will discuss Notice and Wonder charts as a class.
- Students will use critical thinking skills to develop investigative, driving questions to determine why different colored eggs and different colored chickens exist.



#### Day Four

- Students will observe various habitats and use a model to determine similarities and differences among them.
- Students will develop a model of a habitat.



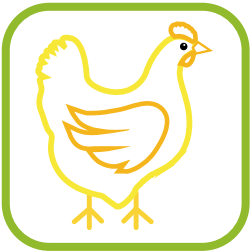
#### Day Five

- Students will use developed habitat models to discuss survival of various animals within the habitat.
- Students will explore needs for survival and model needs on model tracker
- Students will develop an argument why a cardinal would survive in the habitats discussed.



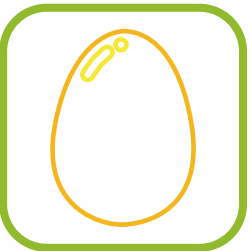
#### Day Six and Seven

- Students will observe wildlife in previously observed habitats.
- Students will use critical thinking skills to determine how the wildlife would thrive, survive or survive well in the other environments.



#### Day Eight

- Students will model differences in observed habitats as a group.



#### Day Nine

- Students will observe eggs.
- Students will determine what kind of eggs they have and will be incubating.
- Students will discuss what other species reproduce via eggs.



#### Day Ten

- Students will discuss if all eggs from all species look the same.
- Students will develop a model of a habitat.



### Day Eleven

- Students will determine why chickens are different colors.
- Students will discuss camouflage and its importance.



### Day Twelve

- Students will observe egg development and model what they observe.
- Students will discuss human connection to chicken survival and compare it to the wild and compare a coop to a nest for shelter and safety.
- Students will design a perfect coop.



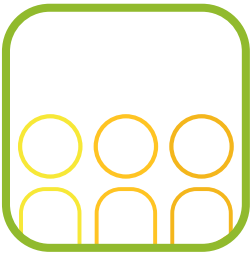
### Day Thirteen

- Students will discuss why some birds live in groups and why some do not.
- Students will develop an argument of why animals may live in groups.



### Day Fourteen

- Students will discuss predator animals versus prey animals.
- Students will use critical thinking skills to develop an argument about jobs within groups for survival.



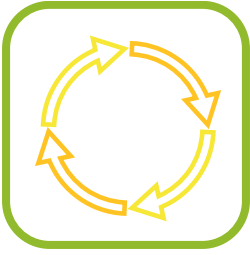
### Day Fifteen

- Students will illustrate predator versus prey via role play.
- Students will develop argument explaining predator versus prey animals.



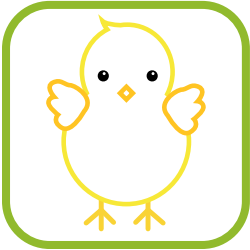
### Day Sixteen

- Students will develop an understanding of natural selection.
- Students will model how natural selection occurs with beaks and survival.



### Day Seventeen

- Students will use critical thinking and visuals to understand genetic patterns.
- Students will model how patterns occur in nature through genetics.
- Students will develop an argument explaining how patterns occur in nature.



### Day Eighteen - HATCH DAY

- Students will observe chicks hatching.
- Students will model what they observed.

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