

# Classroom Aquaponics

<b>Date:</b>		<b>Subject:</b>	Science
<b>Grade Level:</b>	Pk-2		
<b>Lesson Title:</b>	Fish Life Cycle		
<b>Standard(s):</b>	NAS Anchor Standard #1: Generate and conceptualize artistic ideas and work		
<b>NGSS:</b>	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.		
<b>Objective (cognitive):</b>	After a class discussion on what cycles are and a discussion about the 6 stages of a fish cycle students will be able to put the 6 stages in order with 83% accuracy and describe what life cycle is		
<b>Objective (affective):</b>	Students will be able to connect the fish life cycle to other cycles that are present in the world.		
<b>Objective (psychomotor):</b>	Students will be able to understand the concept through illustration of the fish life cycle		

## Book(s) or Supported Reading(s):

- <http://easyscienceforkids.com/lifecycle-of-a-fish/>
  - Have students visit link and follow along while the teacher reads it to them
  - Then the students can observe the visuals

## Materials & Supplies LISTED:

- Blank 6-page booklet
- Art Materials
- iPads/ Laptops

## Anticipatory Set/ **Enticement**:

- Ask the students if they know what a cycle is and begin a conversation
- Show them multiple types of cycles to allow them to make connections to a fish life cycle

## Modeling/ **Explanation** (I can):

- Teacher will introduce the 6 stages of a fish cycle
- The teacher will present show visual from link (above)
- Class will discuss each stage and facts about each stage
- Teacher will also describe the meaning of cycle

## Guided Practice/ **Engagement & Exploration**:

- Students will watch a video to further their understanding
  - <https://www.youtube.com/watch?v=nYZzqZPnzPA>
- Group discussion on the differences between the stages and important things that occur in each stage

## Independent Practice/ **Elaboration**:

- Students will create a book of the 6 stages
- They will draw a picture of each stage on each page
- Booklet will be provided by the teacher

## Closure:

- Students will share their book with the class or in groups

## Assessment/ **Evaluation**

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- Students will use their fish from the story they create and write a mini story about the order of their life
- They should include 5 of the 6 stages and accurately represent them

## **Enrichment/ Extension**

- Students who are grasping the concept quickly will be asked to go further with their story
- They will be asked to include specific details about each stage being represented

## **Modification/ Differentiation:**

- Struggling students will be able to use a visual to have as a guide when creating their story
- Depending on the situation the number of stages represented can differ

