

**ITQ ARTS AND SCIENCE INTEGRATION  
GRADE 3  
DANCE AND LIFE SCIENCE**

**The Crayfish Conga  
Lesson #3**

*FOSS California, Grade 3, Structures of Life, Investigation 3, Part 3*

**CONTENT STANDARDS**

**Dance Grade 3**

- 2.8** Create, memorize, and perform original movement sequences with a partner or small group.
- 5.1** Explain relationships between dance elements and other subjects (e.g., spatial pathways – maps and grids, geometric shapes – body shapes).

**Science Grade 3**

- LS3a** Students know plants and animals have structures that serve different functions in growth, survival, and reproduction.

**ESSENTIAL QUESTIONS** (*Questions students might ask about the topic*)

- How do crayfish behave?
- How does the crayfish conga help me to understand a crayfish's behavior?

**OBJECTIVES & STUDENT OUTCOMES** (*Students will be able to.....*)

- memorize and perform dance sequences in a group depicting the behavior of the crayfish.
- infer what will happen to the crayfish if their environment changes.

**ASSESSMENT** (*Various strategies to evaluate effectiveness of instruction and student learning*)

- **Feedback for Teacher**
  - Student performance
  - Student response to inquiry
  - Science notebook entries
  - "Crayfish Dance Study" handout
  - Performance Rubric
- **Feedback for Student**
  - Teacher Feedback
  - Peer feedback
  - Videotape
  - Performance Rubric

**Words to Know**

**Dance**

- **Choreography:** The creation and composition of dances by arranging or inventing steps, movements, and patterns of movement.
- **Dance Study:** A short work of dance that investigates a specific idea or concept and shows a selection of movement ideas.

**Science**

- **Adaptation:** Any structure of behavior of an organism that improves its chances for survival.
- **Behavior:** The actions of an animal in response to its environment.

## MATERIALS

- Computer with access to youtube
- CD Player and music
- “Crayfish Dance Study” (handout #1)
- “Crayfish Conga Situations” (handout #2), three copies, cut into strips
- “Crayfish Performance Rubric (handout #3, for the teacher)
- Science notebooks (1/student)

## RESOURCES

- FOSS California, Grade 3, Structures of Life, Investigation 3, part 3
- Video #7, Fighting crayfish:  
<http://www.youtube.com/watch?NR=1&v=qtXRvshZa4Q&feature=endscreen>
- Video #8, Crayfish fights: <http://www.youtube.com/watch?v=p210KXMO0ig>
- Video #9, “Fighting Blue Crayfish”: <http://www.youtube.com/watch?v=InC3Xawessg&feature=related>
- Music: “Dance of the Woodland Pixies” by Ray Davies, “Benny Hill” by Retro Tv Theme, Blue (Da Ba Dee) by Eiffel, “Dreamshore 2010 (Cosmic Mix)” by Tiestuno and Cosmico; “Conga” by Gloria Estefan, “Oye Como Va” by Tito Puente or Santana, “Ahora Vengo Yo” by Richie Ray & Bobby Cruz, “Hoy Tenemos” by Sidestepper, “Jump in Line (Shake Shake Senora)” by Harry Belafonte or Kids’ Dance Party, “Are You Ready For This? by DJ Matias, “Get Ready for This” by 2 Unlimited

## PREPARATION

- Teach *FOSS California, Grade 3, Structures of Life, Investigation 3, Part 3*
- Review and discuss the **behaviors** of the crayfish.
- Watch fighting crayfish videos #7, 8 and 9.
- Rehearse crayfish choreography throughout the week prior to this lesson.
- “Crayfish Conga Situations”, three copies cut into strips
- One copy of the “Crayfish Performance Rubric”

## WARM UP *(Engage students, access prior learning, review, hook or activity to focus the student for learning)*

(3 minutes)

- Review the behaviors of the crayfish.
  - *Say: We will be completing our **dance study** to help us better understand the **behavior** of the crayfish. First, let’s review our crayfish conga. Please get into your groups of four.*
- Play music and rehearse the steps and the behaviors (defending and hiding) from lesson #2.

## MODELING *(Presentation of new material, demonstration of the process, direct instruction)*

(20 minutes)

- Discuss crayfish **behavior**: fighting and competition.
  - *Say: Crayfish defend their burrows or hiding places vigorously against all intruders, especially other crayfish. Territorial behavior occurs in many species of animals. Crayfish will also compete and fight for food and mates. First, the aggressive animal will posture. We rehearsed that in the last lesson. Next, the two crayfish will begin to wrestle. They will touch pincers and push each other around. Finally, they will pinch and jab each other with their pincers. One animal may retreat and try to get away. We practiced that as well in lesson #2. Or they might fight until one does not survive.*
- Ask for two groups to volunteer how to fight safely.
  - Group 1 and 2 face each other and put arms forward until hands touch.
  - Push against each other’s hands. Group 1’s right arm will bend while the left arm stays straight. Group 2’s left arm will bend and the right arm will stay straight.
  - Perform this arm motion back and forth motion for eight beats.
    - Remind the other students in the group about their bristles (fingers) and the student representing the tail should move the hips.

- Next, teach pinching and jabbing motions.
  - Have group 1 reach with right hand across the body and do a pinching motion with fingers on beat 1, reach across the body with the left hand and pinch on beat two. Reach to different levels on beats three through eight, alternating right and left arms.
  - Group 2 will begin reaching with pinching with the left hand and then with the left, alternating hands for eight beats.
- Ask all students to stand and arrange groups into pairs.
  - Practice the first eight beat arm motion (hands touching) several times until students can do it smoothly.
  - Practice the second eight beat arm motion (pinching and jabbing) several times until students can do it smoothly.
  - Practice both movements one after the other: eight beats pushing, eight beats pinching and jabbing.
- Setting up the fight scene (choose two different groups to demonstrate):
  - Identify one area of the space as the shelter and place group one in that space. Group one will demonstrate a resting position (refer back to lesson #2 crayfish pictures).
  - Ask group 2 to assume a position a distance away from group 1 and make their approach using their conga dance.
  - As group 2 gets close to group 1, group 1 will assume the defense posture. Then group 2 will assume the defense posture.
  - Both groups will begin to fight for a total of 16 beats.
  - Have all groups practice this approach, defensive stance and fight.
- Seat students when finished.

### **GUIDED PRACTICE** (*Application of knowledge, problem solving, corrective feedback*)

(22 minutes)

- Introduce scenarios in the crayfish environment: predator, evaporating pond water, defending territory, over-feeding.
  - *Ask: What will happen if a crayfish's water environment evaporates?* [Accept student responses.]
    - *Say: If a crayfish were unable to find water within a couple of days, it would cease to survive (die). It has to have water in its environment to survive. Remember this important point because we will be using this change in our environment as we do our conga dances.*
    - *A snail is another kind of animal that must have a moist environment to survive. When it is dry outside, we see snails tucked inside their shell. Thumbs up if you have seen a snail tucked inside its shell. The snail will stay inside its shell until there is more moisture. We say that the snail estivates. Say the word with me, as we clap the syllables, es-ti-vates*
    - *Ask: Does the crayfish have the luxury of hiding in its shell or, what is the word* [Students respond, estivates.] *if its pond dries up?* [No].
    - *The crayfish will die within a few days being out of water.*
  - *Ask: What will happen if a crayfish eats all the available food in its environment?* [Accept student responses.]
    - *Say: If there is no food in the environment for the crayfish, it would either have to move to a new location or it would cease to survive (die). Remember this important point because we will be using this change in our environment as we do our conga dances.*
  - *Ask: What is **adaptation**?* [Accept student responses.]
    - *Say: An adaptation is any structure or behavior that helps an animal survive in its environment. If the crayfish did not have its pincers to hold and tear its food, it wouldn't survive. If it didn't have a shelter in which to hide, it would be vulnerable to predators. We will be creating the final portion of our dance study by showing our **adaptations** in our dancing.*
- Distribute one "Crayfish Conga Situation" to each group.
- Note: Depending upon the size of the class, you could have multiple groups dance the overfeeding, evaporating pond, predator, and defending the shelter.
  - *Say: I will give each group a situation to solve for the ending of your conga dance. Read the situation carefully. It will tell you what is happening in your environment. You will create movement to show the situation and the result and ending of the dance. There are four sections*

to your dance (post diagram #1). I will cue you when it's time to move to the next part by saying the word "next" (you could also ring a bell, stop the music, or use some other form of audible or visual cue).

- In the first part, you will do your conga dance using your sequences and directions. Remember that the tail must give good commands and don't forget about your bristles! Cue in 20-30 seconds.
  - The second part you will set up the situation. Think about how you will show this. I will not give you a lot of time to do this part, so make it clear to the audience. Cue in 10-15 seconds
  - The third part you will perform the action. Some of you will posture, fight, defend, feed, or be swimming in a pond that is evaporating. Cue in 15-20 seconds.
  - The final part will show the result. Will you adapt and overcome? (You may have to explain what this phrase means). Or will you die? Cue in 10-15 seconds.
- Option: Post and review the "Crayfish Performance Rubric".
  - Allow students to rehearse for 7-10 minutes. Move from group to group assisting with movement and sequencing.
  - Have video camera ready to tape performances. Each group with the same situation will perform while the rest of the class watches.
  - Allow students to choose the type of music they would like from the list of choices available with this lesson series.

**DEBRIEF & REFLECT** (*Identify problems encountered, ask and answer questions, discuss solutions and learning that took place. Did students meet outcomes?*)  
(5 minutes)

- Answer the following questions in science notebooks:
  - What is an adaptation?
  - How did the crayfish conga help me to understand the behaviors and adaptations of the crayfish?

**EXTENSION** (*Expectations created by the teacher that encourage students to participate in further research, make connections, and apply understanding and skills previously learned to personal experiences.*)

- Allow students to watch the videotape and discuss success and improvements.
- Use the "Crayfish Performance Rubric" as a tool to assess the videotaped performance.
- Create an environment using two or three groups as crayfish and the rest of the class as other living things (snails, fish, etc.) and non-living things (grass, water, shelter). Create movement for the living and non-living things in the environment.
- Write a script and perform before a live audience.

Diagram #1  
**CRAYFISH DANCE STUDY**

<b>Part #</b>	<b>Crayfish Movement</b>	<b>How? What will the movement look like?</b>
<b>1</b>	<b>Whole body crayfish conga moving in the environment</b>	We will dance in general space using our choreographed sequences and direction changes. We will change to the next part when our teacher cues us.
<b>2</b>	<b>Introduce the situation.</b>	What is the situation? How will you show it?
<b>3</b>	<b>Perform the situation.</b>	What movement choices will you make?
<b>4</b>	<b>Show the ending</b>	What is the outcome of the situation?

## Handout #2: Crayfish Conga Situations

Your group is Crayfish #1: The PREDATOR. He is hungry and is looking for something to eat. You will stalk and catch a worm and have it for your dinner. How will your group show stalking, catching, and eating the worm? You eat, and eat, and eat until there is no food left in the pond. What will happen next? Will you move to another environment with more food or will you cease to survive?

1. Do your conga dance until you are cued by your teacher to setup your situation.
2. Set up your situation. Teacher will cue you to begin the final part of your dance.
3. Perform the overfeeding movement and decide how you will end your dance.  
Your teacher will cue you to end the dance.
4. Will you adapt and overcome, or die?

Your group is crayfish #2: DEFENDING ITS SHELTER. Another crayfish gets too close and you feel threatened and afraid it will invade your home. How will your group show defensive posture and how will you fight the other crayfish? Will you drive it away, will you injure it, or perhaps it will be a fight to the death. Work with crayfish #3 to determine the ending.

1. Do your conga dance until you are cued by your teacher to setup your situation.
2. Set up your situation. Teacher will cue you to begin the final part of your dance.
3. Perform the posturing and fighting movement with crayfish #3.
4. Decide with crayfish #3 how you will end the dance. Your teacher will cue you when to end the dance. Will you triumph? Retreat? Adapt and overcome, or die?

Your group is crayfish #3: FIGHTING CRAYFISH. You wander too close to crayfish #2's shelter. How do you posture and defend yourself against attack? Will you retreat or stay and fight? What will happen at the end of your dance? Work with crayfish #2 to determine the ending.

1. Do your conga dance until you are cued by your teacher to setup your situation.
2. Set up your situation. Teacher will cue you to begin the final part of your dance.
3. Perform the fighting and decide with crayfish #2 how you will end your dance.  
Your teacher will cue you to end the dance.
4. Will you win or lose the battle? Will you retreat? Will you adapt and overcome, or die?

Your group is crayfish #4: YOUR POND IS EVAPORATING: As you continue to swim, and feed, and rest, and dance, the pond is drying up. How will you show this? What will happen next? Will you find more water somewhere else or will you cease to survive?

1. Do your conga dance until you are cued by your teacher to setup your situation.
2. Set up your situation. Teacher will cue you to begin the final part of your dance.
3. What will your movement look like as the pond starts to dry up?
4. Decide how you will end your dance. Your teacher will cue you to end the dance.  
Will you adapt and overcome or die?

### Handout #3 (for the teacher): **CRAYFISH PERFORMANCE RUBRIC**

4 = Group works well together. The directional commands and movements are memorized, clear, and accurately demonstrated. All four parts of the dance study are clearly observed.

3 = Group works together. There may be some hesitation in movement or coaching from peers within the group. Movements and directions are mostly memorized and accurately demonstrated. All four parts of the dance are observed.

2 = Group work is rough but the group gets through the dance study. Group may need side coaching from teacher. Movements and commands are not smooth and there are stops and starts. All four parts of the dance observed.

1 = Group has difficulty working together and cannot get through the dance study without side coaching.

<b>Group #</b>	<b>Comments</b>	<b>Score</b>			
1		4	3	2	1
2		4	3	2	1
3		4	3	2	1
4		4	3	2	1
5		4	3	2	1
6		4	3	2	1
7		4	3	2	1
8		4	3	2	1