

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

**The Crayfish Conga – Behavior
Lesson #2**

FOSS California, Grade 3, Structures of Life, Investigation 3, Part 2

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 and habitat of the crayfish.

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

- **Feedback for Teacher**
 - Student performance
 - Student response to inquiry
 - Science notebook entries
- **Feedback for Student**
 - Teacher Feedback
 - Peer feedback
 - Videotape

WORDS TO KNOW

Dance

- **Dance Sequence:** The order in which a series of connecting movements and shapes occur.
- **Dance Study:** A short work of dance that investigates a specific idea or concept and shows a selection of movement ideas.

Science

- **Behavior:** The actions of an animal in response to its environment.
- **Environment:** Everything that surrounds and influences organisms.
- **Function:** A kind of action, such as the function of a body part.

MATERIALS

- Computer with access to youtube
- CD Player and music
- Crayfish Behavior, sheet No. 9, pg. 193 in FOSS Teacher Handbook

- Diagram #1 “All about the Crayfish”
- Diagram #2 Crayfish Behavior Pictures
- Science notebooks (1/student)

RESOURCES

- FOSS California, Grade 3, Structures of Life, Investigation 3, part 2
- “All About the Crayfish” (edited): http://www.crayfishfacts.net/crayfish_habitat/crayfish_habitat.html
- Video #5 Fighting crayfish:
<http://www.youtube.com/watch?NR=1&v=qtXRvshZa4Q&feature=endscreen>
- Video #6 Defensive crayfish: http://www.youtube.com/watch?v=61_9NhAZj3Y&feature=related, start video at 3:20 and go forward
- Video #7 Crayfish trying to catch a fish: http://www.youtube.com/watch?v=ALrq9_fuzEk
- 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 2*
- Review and discuss the **behaviors** of the crayfish.
- Crayfish Behavior, sheet No. 9, pg. 193 in FOSS Teacher Handbook.
- Diagram #2: “Crayfish Choreography” handout (optional)
- Optional reading (can do as a part of literacy): Diagram #1: “All About the Crayfish” (edited version included at the end of this lesson).
- After reading, show video clips #5-7. Ask students to closely observe how the crayfish moves and behaves. Chart observations. This will be used to create original crayfish movement.
- Have Diagram #3 “Crayfish Behaviors - Pictures” ready.

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

(5 minutes)

- Review the structures of the crayfish.
 - *Say: We will be creating a **dance study**. A dance study is a short piece of choreography that focuses on a single topic. We create **dance sequences** and place them side by side to create a **dance study**. We will be expanding our crayfish conga dance 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 move with typical conga line steps (three walks and a toe point), for 30 seconds.

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

(15 minutes)

- If you have already not done so, distribute the “Crayfish Choreography” handout from lesson #1.
- Post handout on the board.
- If the class hasn’t yet watched videos #5-7, now would be a good time to do that. Ask students to observe the defensive and feeding (catching fish) behaviors of the crayfish. Discuss Observations.
 - Note: You may omit this step if you have already observed the video clips.
- If you did not model and/or have your class start creating the sequences between lesson 1 and 2, you should now model each sequence. You can demonstrate the moves yourself or use one group to demonstrate. Note: you can omit this step if this has previously been done.
 - Review each section of the dance with students not connected and then in a conga line
 - **Dance sequence** – Locomotor and axial movement
 - Directions sequence (three different initiated by the person representing the tail)

- Remind students that
 - **dance sequences** may repeat in any order
 - the head student to move their pincers (reach, grasp, etc.)
 - the last student is the tail and they need to be clear with the directions. Note: If it is easier to call them out yourself, or have a set pattern of directions (all move left, all back up, all move right), then that is acceptable.
- Allow groups to rehearse for three to five minutes.
- Play music and perform. When finished, seat students.

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

(20 minutes)

- Discuss the crayfish's defensive **behavior**. Refer to video #6 or the pictures and Diagram #1.
 - Ask: What does the crayfish's body look like when it is on the defense (when it feels threatened)? [Accept student responses.]
 - Say: The crayfish's posture shows the animal with a lowered tail and a high chest with raised pincers (refer to pictures). The crayfish will pivot around as the intruder or threat is near (see video #6).
 - I am going to give you two minutes to figure out how to place your group into a defensive posture. I will walk around to each group and when I approach I'd like for you to face me and assume a defensive posture.
 - Crayfish will assume this posture as long as it feels threatened or until it can retreat by backing up and moving to a hiding place. I am going to give you two more minutes to find a way to move from your defensive posture by backing up and settling into to an imaginary hiding place in a low flat posture. Go!
- Have groups rehearse their dance from the modeling section with the defending and retreating postures.
- Say: *As I walk around the room, when I confront you, get into your defense posture. When I walk away, retreat by backing up and hiding. This is the second part of our **dance study**.*
- Continue to walk around the room as students rehearse for five minutes.

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

(10 minutes)

- Complete "Crayfish Behavior", sheet No. 9 and place in science notebook.
- Answer the following questions in your science notebooks:
 - What structures do crayfish have to help them survive?
 - What behaviors do crayfish have that help them survive?
 - How did we demonstrate the behaviors (defending, retreating and hiding) 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 get with their group rehearse the choreography for their conga dance. The next lesson will continue with crayfish habitat, fighting, feeding and survival. It is important that the steps are selected and rehearsed before starting lesson #2

Diagram #1: ALL ABOUT THE CRAYFISH

Crayfish have amazing adaptations.

Crayfish breathe through gills under the carapace. Their eyes are on movable stalks to allow sight in different directions.

Antennae sense prey and predators. They emit chemical cues to identify one another and signal mating. They can even change color to match their habitat.

Crayfish are important as predators and prey in the aquatic food chain. They are omnivores (feed on plants and animals) and scavengers. They eat snails, insects, worms, tadpoles, dead aquatic animals, algae and vegetation.

In the wild, crayfish make a tasty treat for alligators, fish, turtles, otters, and birds. When taken from clean water and properly cooked, crayfish are a great meal for humans.

They are active mainly during the night, taking refuge in their burrows during the day. Crayfish like to stay under rocks or logs, or pieces of PVC pipe. They look for food among the rocks and debris along the bottom of the lakes and streams in which they live. General movement is always a slow walk, but if startled, crayfish use rapid flips of their tail to swim backwards and escape danger.

Crayfish are very sensitive to the presence of other crayfish. Most species are semi-social and tolerate living in groups, but there will be a lot of competition going on at all times. If the space and food are limited, crayfish could engage in forceful battles that might end with injury or even death of one of the contestants.