

DOLPHIN RESEARCH CENTER

Distance Learning: Santini's Sounds of the Sea

Can dolphins talk? What can they hear? How do they communicate? Immerse yourself in the world of marine mammals and learn about dolphin communication and sound with Santini at Dolphin Research Center!

Grade Levels: 1-5

Program Description:

Can dolphins talk? What can they hear? How do they communicate? Immerse yourself in the world of marine mammals and learn about dolphin communication and sound with Santini at Dolphin Research Center! Students will participate in a live studio-based distance learning with Dolphin Research Center staff to learn about sound energy and how dolphin communication compares with human communication. At the end students have the opportunity to ask a dolphin expert questions about dolphins while also learning how they can lessen their impact on the marine environment. All studio-based distance learning programs include a live instructor interaction with video clips from all around our beautiful Florida Keys facility.

Concepts Addressed:

- Students will compare and contrast the communication methods and organs of dolphins and humans.
- Discussion of what sound is, how it is formed and how it “behaves” and what that means for dolphins.
- Students will see a demonstration of how trainers communicate with the dolphins they work with.
- Investigate the conservation challenges facing dolphins and discuss solutions.

Program Format:

- This is a studio based program. Students will be able to interact with an educator in our studio as well as see pre-recorded video from around our facility.
- Students will get the chance to “meet” Santini, a member of the Dolphin Research Center family.
- With the help of Santini, hier trainer Noelle, and a Dolphin Research Center educator students will compare and contrast the senses the communication methods and organs of dolphins and humans.
- Students and the instructor will discuss what sound is, how it is formed and how it “behaves” and what this means for dolphins.
- Students will see video from a session with Noelle and Santini that will allow them to see and learn about how trainers communicate with the dolphins that they work with.
- Students will learn about the impact of sound dolphin populations and what they can do to help protect wild dolphins.
- Students will have the opportunity to ask a dolphin expert questions



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Program Logistics

Program Length: 45-60 minutes

Minimum # of participants: 1

Maximum # of participants: For groups over 100 please contact us

Program Cost: \$95.00 (CILC premium members: \$85)

- Discounts may be available for bulk programming

Program Fee Notes: Payment of associated fees must be received 72 hours before the program date. If payment is not received by this time the program is subject to cancellation.

Cancellation Policy: We will not charge for programs canceled due to nature i.e. snow days. The full fee will be charged to sites which cancel with less than 48 hours notice. Payment is due 72 hours before the program. If payment is not received by this time the program is subject to cancellation. Dolphin Research Center reserves the right to cancel programs at anytime. If Dolphin Research Center cancels a program than it will contact the requester to discuss rescheduling options. If a program does not occur because of an error in communication between the requester and Dolphin Research Center, requesters will still be charged the full price of the programs. Sites need to participate in a tech run with Dolphin Research Center staff members. This will be scheduled to occur prior to your program date. If the tech run does not occur the full fee will be charged to sites that cannot connect at program time.

Program Delivery Mode: Google Hangouts, ZOOM, CILC One-Click-Connect (for H323)

Recording of any type during a Dolphin Research Center distance learning program is prohibited.

Standards

Florida

Florida Next Generation Sunshine State Science Standards met or supported:

- **SC.3.P.10.1** Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical.
- **SC.4.P.10.1** Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.
- **SC.4.L.16.3** Recognize that animal behaviors may be shaped by heredity and learning.



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- **SC.4.L.17.4** Recognize ways plants and animals, including humans, can impact the environment.
- **SC.4.P.10.3** Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates.
- **SC.5.L.17.1** Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.
- **SC.5.P.10.1** Investigate and describe some basic forms of energy, including light, heat, sound, electrical, chemical, and mechanical.

Language Arts Florida Standards met or supported:

- **LAFS.1.SL.1.1** Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. A. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. C. Ask questions.
- **LAFS.2.SL.1.1** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. A. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by linking their comments to the remarks of others. C. Ask for clarification and further explanation as needed about the topics and texts under discussion.
- **LAFS.3.SL.1.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 *topics and texts*, building on others' ideas and expressing their own clearly. A. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. D. Explain their own ideas and understanding in light of the discussion.
- **LAFS.4.SL.1.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 *topics and texts*, building on others' ideas and expressing their own clearly. A. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks



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of others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

- **LAFS.5.SL.1.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. A. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

National

Next Generation Science Standards met or supported:

- **1-PS4-1.** Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.
- **3-LS2-1.** Construct an argument that some animals form groups that help members survive.
- **4-LS1-2.** Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

Common Core for English Language Arts met or supported:

- **CCSS.ELA-Literacy.SL.1.1** Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups. A. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. C. Ask questions to clear up any confusion about the topics and texts under discussion.
- **CCSS.ELA-Literacy.SL.2.1** Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups. A. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by linking their comments to the remarks of others. C. Ask for clarification and further explanation as needed about the topics and texts under discussion.
- **CCSS.ELA-Literacy.SL.3.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly. A. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other



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information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). C. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. D. Explain their own ideas and understanding in light of the discussion.

- **CCSS.ELA-Literacy.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. A. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Ocean Literacy Principles

- **5A** Ocean life ranges in size from the smallest living things, microbes, to the largest animal on Earth, blue whales.
- **5D** Ocean biology provides many unique examples of life cycles, adaptations, and important relationships among organisms (symbiosis, predator-prey dynamics, and energy transfer) that do not occur on land.
- **6D** Humans affect the ocean in a variety of ways. Laws, regulations, and resource management affect what is taken out and put into the ocean. Human development and activity leads to pollution (point source, nonpoint source, and noise pollution), changes to ocean chemistry (ocean acidification), and physical modifications (changes to beaches, shores, and rivers). In addition, humans have removed most of the large vertebrates from the ocean.
- **6G** Everyone is responsible for caring for the ocean. The ocean sustains life on Earth and humans must live in ways that sustain the ocean. Individual and collective actions are needed to effectively manage ocean resources for all.

Recommended Materials and Preparation

- If teachers would like for students to do the tuning fork activity with Dolphin Research Center instructors they should have them available.
- If teachers would like for students to do the balloon activity with Dolphin Research Center instructors they should have them available.
- You Dolphin Research Center Instructor may choose to ask your students to participate in Think-Pair-Share Activities. Please have your students assigned into groups of 2-3 in case these activities are used.



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