

# DISTANCE LEARNING

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## How Do They Do That?

*Grades K-8*

Thank you for your interest in the New Jersey Academy for Aquatic Sciences Distance Learning Program!

We can conduct our videoconference programs via ISDN lines up to 384 Kbps. High speed Internet Protocol (IP) connections are also available at 768 Kbps.

**Our ISDN Videoconferencing #: (856) 365-0485**

We would like to provide you with the enclosed activity ideas to add to the content you've already planned and to help make your time with us a memorable learning experience full of wonder, excitement and curiosity! The section titled "**Exploration Activities**" includes activities and worksheets that are needed during the videoconference. Please follow the guidelines included in this section to ensure that your students are well prepared. We look forward to meeting you!

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### Pre-Videoconference Activities



Discuss habitats and adaptations with the students (the example of the peppered moth is a great way to introduce the topic of adaptations)

<http://www.utm.edu/~rirwin/moth.htm>



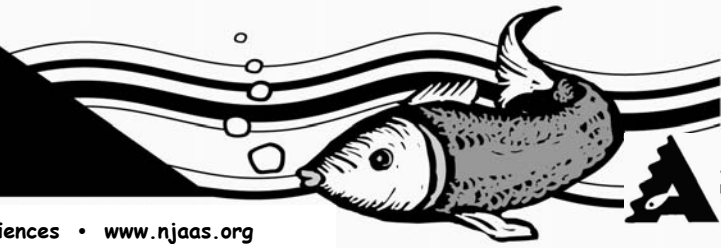
Divide the class into groups of up to 5 students, and distribute the "Create a Creature" worksheet to each child. Instruct the students to work together and assemble a creature that matches the description of the animal on the worksheet. Various materials around the classroom should be provided to each group - these materials may include glue, markers, newspaper, feathers, popsicle sticks or any other materials that may be appropriate for the activity.

**Note for younger students:** the worksheet may be omitted and children can create any animal they wish with the materials provided.

Give all of the newly created creatures a name, and display the creatures in your classroom.

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## Exploration Activities



Distribute the "Animal Observation" worksheet to every student for use during the videoconference. Encourage students to use the back of the paper to record notes or to sketch interesting animals they encounter during the presentation.

The use or omission of this activity is up to the discretion of each teacher. It is not a necessary component of the videoconference.

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## Post-Videoconference Activities



Using the creatures created during the pre-visit activity, have the students individually measure the height of each creature. On a separate sheet of paper, have the students create a bar graph representing the height of each creature in inches. Which group made the tallest creature? How big is the difference between the tallest and shortest creatures? Have the students repeat the activity using centimeters.

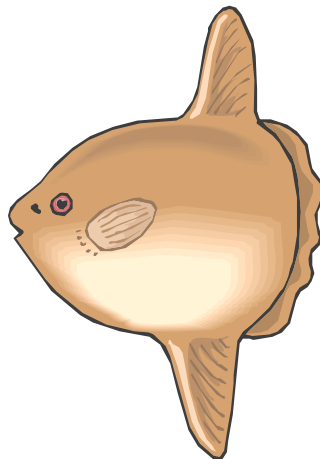
**Note for younger students:** Have the children arrange the creatures in a row from shortest to tallest.



Have students share their observations from the "Animal Observations" worksheet (to be completed during the videoconference) by writing the adaptations on the blackboard. As a second step, have students categorize each adaptation into various functional categories (examples may be locomotion, protection, etc.)

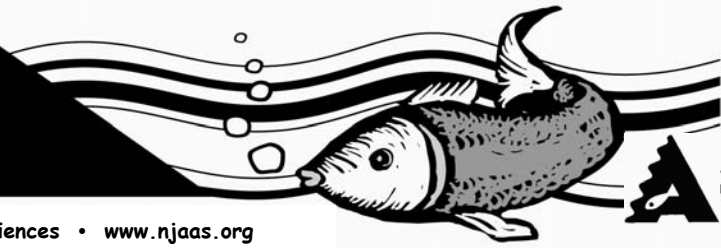


Have students research a variety of animals of their choice to find the most unique and interesting adaptations possible (such as the body shape of the Ocean Sunfish below). Share the findings with the class.



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Name: \_\_\_\_\_



## Create a Creature!

Use your imagination to create a creature that matches the description below!

The animal you create should have adaptations that allow it to live in the habitat of your classroom! Feel free to add any adaptations that your group thinks will help the animal adjust to classroom living. Examples may be suction cups to climb up walls, camouflage coloring to blend into the carpet, etc.



**Legs:** Each leg should be 3 inches long.  
Create as many (or as few) legs as you wish.

**Arms or Wings:** This creature has arms or wings that are 10.5 inches each.

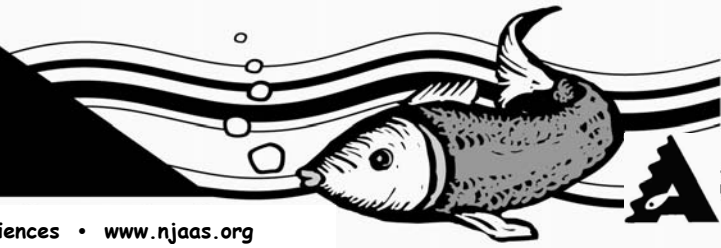
**Body:** Create whatever body type you wish!

**Eyes:** The eyes may either be  $\frac{1}{4}$  inch wide, or 2 inches for better vision at night (give the animal the larger, 2 inch eyes if you decide that your animal will be *nocturnal*, which means that it is most active at night).

**Optional:** Add hands, paws, feet, a tail, a shell, scales, claws, gills, a mouth, or any other adaptation, as long as a reason for the adaptation can be provided. (example: an animal would have no use for gills unless it spent at least some time in the water)

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## Create a Creature!

Use the space below to record the creature's adaptations, and how the adaptations help it to live in its habitat (your classroom)

Adaptation

Reason

1.

2.

3.

4.

5.

6.

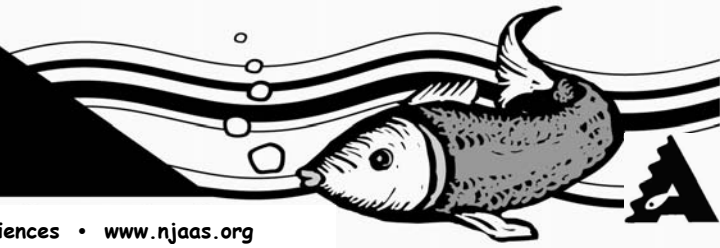
7.

8.

Continue your list on a separate sheet of paper if necessary.

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Name: \_\_\_\_\_

## Animal Observation



Do you think you'd make a good marine biologist? Marine biologists spend much of their time observing marine life and drawing conclusions based on the observations they make. Recording these observations is an important skill. Sometimes, marine biologists will spend hours observing animals, so it's important to record these observations on paper!

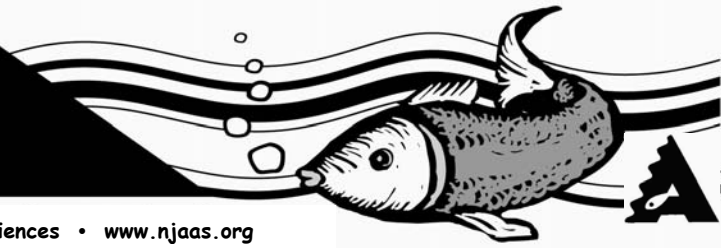


Marine animals have some unique and surprising *adaptations*, some of which biologists are still trying to understand! Use the space provided below (as well as the back of this paper) to record and sketch the adaptations you find most interesting!

Animal	Adaptation	Adaptation Purpose

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Use this space to sketch or record more notes about interesting animals you encounter during the videoconference!



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## Videoconference Evaluation

We hope you found this program to be both educational and fun! Please take a moment to complete this evaluation and return it to us at your convenience. Your comments are valuable to us, as we use this input to improve existing programs and to develop new educational programs at the Academy.

**Program Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Instructor(s):** \_\_\_\_\_

	Excellent.....Poor				
<b>PROGRAM</b>					
Content: program covers subject adequately	5	4	3	2	1
Teacher's Packet materials and activities	5	4	3	2	1
Interest level and student involvement	5	4	3	2	1
Appropriate for age level	5	4	3	2	1
<b>INSTRUCTOR(S)</b>					
Prepared: knows and conveys information well	5	4	3	2	1
Enthusiastic and professional	5	4	3	2	1
Encourages student participation	5	4	3	2	1
Responds to questions appropriately	5	4	3	2	1

The best part about this program was: \_\_\_\_\_

This program would be better if: \_\_\_\_\_

Why did you choose this program? \_\_\_\_\_

What program topic would interest you most in the future? \_\_\_\_\_

Did you use the worksheets and activity ideas that were included in the teacher's packet? \_\_\_\_\_

Comments or suggestions: \_\_\_\_\_

\_\_\_\_\_

Thank you for your time,

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