

Amazingly Adaptive 3-5

Program Description:

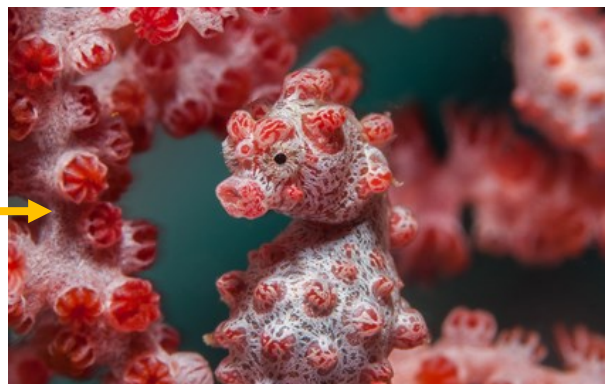
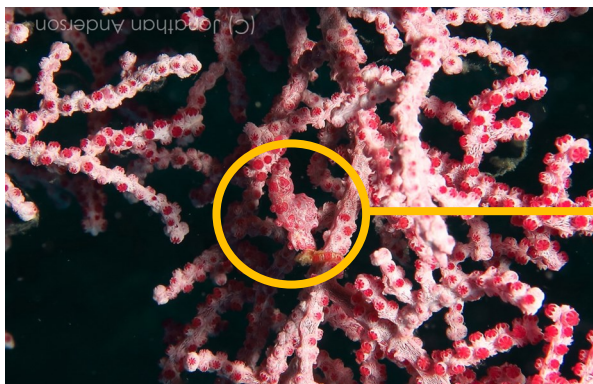
Animals are amazing because each species has physically and behaviorally changed to best fit into the environment that they live in. How exactly have animals adapted over time in order to survive in their ecosystem? Why can puffins fly, but penguins can't? What exactly makes our alligators all white and how does it impact them in the wild? Students will observe different kinds of physical, behavioral adaptations animals have developed to survive.

At the end of program, students can...

- Identify types of adaptations.
- Distinguish between physical and behavioral adaptations.
- Identify the cause of coral bleaching.

Background:

Adaptation is a alteration of an organism or its parts that allows it to be more fit for survival in its own environment. An example of this is camouflage. In the images below, the pygmy sea horse camouflages or blends in perfectly with the coral that the tail is wrapped around.



What to Know Before



EDUCATION

GEORGIA AQUARIUM

Amazingly Adaptive 3-5

American alligators are found primarily in the South-East in freshwater swamps and marshes, as well as in rivers, lakes and smaller bodies of water. Individuals also can be encountered in ditches, drainage canals, subdivision waterways, golf course ponds and roadways.



Whale sharks occur worldwide in the tropical Atlantic, Pacific, and Indian oceans between about 30 degrees North and 35 degrees South, though it has been sighted as far as 41 degrees North and 36.5 degrees South. This includes the Gulf of Mexico, off the coast of Florida.

Coral can be found between the Tropics of Cancer and Capricorn, including off the coast of Georgia, called Gray's Reef. In shallow water, corals live as a community called reefs. Coral reefs are found no deeper than 230 feet and cover less than one percent of the ocean floor, however they support about 25% of all ocean life.



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Instructions: Using the previous page, answer the questions below.



Describe the American alligator's environment: _____

Name a specific place in the South-East American alligators can be found: _____

Could a whale shark be found off the coast of Georgia? Yes No

Name one country in the N. Hemisphere other than the US that someone could see a whale shark off the coast. _____

What is the furthest degree south a whale shark has been found? _____



Coral reefs are often called the rainforest of the ocean. Why is it called that? _____

What is the name of the coral reef found off the coast of Georgia? _____

Can coral reefs be found at 110ft? Yes No

What I Learned



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Is an American alligator with albinism more or less likely to survive? Why? _____

What is one behavior we teach our whale sharks? _____

Imagine you have a dog, you call its name and it comes over. Is that a learned or innate behavior? _____

Birds are able to fly due to what adaptation? _____

What is it called when coral loses its zooxanthellae, the algae it has a symbiotic relationship with? _____

What type of instrument do you need to see zooxanthellae? _____





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Describe the American alligator's environment: **Descriptions should be of marshes, swamps or even lakes and rivers.**

Name a specific place in the Southeast American alligators can be found: **Many possible answers. Could be Everglades, Okefenokee, etc.**

Could a whale shark be found off the coast of Georgia? **Yes** No

Name one country in the N. hemisphere other than the US that someone could see a whale shark off the coast. **Mexico, Cuba or any Central American country.**

What is the furthest degree south a whale shark has been found? **36.5°**



Coral reefs are often called the rainforest of the ocean. Why is it called that? **Because they support 25% of all ocean life and their bright color.**

What is the name of the coral reef found off the coast of Georgia? **Gray's Reef**

Can coral reefs be found at 110ft? **Yes** No

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Is an American alligator with albinism more or less likely to survive? Why? **Less likely, explanation should include lack of camouflage.**

What is one behavior we teach our whale sharks? **Feeding horizontally, eating at specific ropes or following the boat.**

Imagine you have a dog, you call its name and it comes over. Is that a learned or innate behavior? **Learned**

Birds are able to fly due to what adaptation? **They have hollow bones as well as wings and feathers.**

What is it called when coral loses its zooxanthellae, the algae it has a symbiotic relationship with? **Coral bleaching**

What type of instrument do you need to see zooxanthellae?

A microscope

