

Name(s) _____ Date: _____

The "Finding Nemo" Debate

species abiotic and biotic requirements				
Demonstrated an understanding of the concept of species interdependence				
Demonstrates an understanding of the effects of climate change on ocean systems				
Created the required presentation that supplies facts that support the presenters viewpoint				
Created a quality presentation with all required information and organized in a way that others can easily find information about the species/ecosystem.				
Required vocabulary/prelim questions #1-30. (<15 = 0) (15-20 =1) (20-25 = 2) (25-30 = 3)				
Total Points (33 Points possible)				

Print

Pages 6 – 12: Student Worksheets

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Student objectives/requirements:

- Debate whether or not marine animals should be kept in captivity; specifically, the species that you chose from the "Finding Nemo" movie.
- Research by the means of your choice (use of www.helpsavethereef.com is recommended) and present on specific oceanic species; Report biotic requirements, abiotic factors and species interaction, habitat, and physiology of this species in their native environment.
- Create a presentation/display that represents information about a species they've chosen and support their opinions of whether this organism should or should not be kept in captivity.
- Contact marine biologist, pet store workers, various research websites, conservationist websites or scientific blogs to further support their opinion of whether or not these species should be kept in captivity.
- Explore reef population dynamics of particular species and demonstrate an understanding of interdependency that exists between organisms of an ecosystem.
- Create a campaign ad promoting findings on the internet, in person using a poster, or via the school or local news outlet.

Students will be required to answer questions from the audience that challenges their position on the topic and organism chosen.

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Part-1 Getting Started:

Define the following terms before beginning your research:

- | | | |
|----------------------------|-------------------------|-----------------------|
| 1. biotic factors | 10. global warming | 19. natural selection |
| 2. abiotic factors | 11. ocean acidification | 20. limited resource |
| 3. species Interdependence | 12. speciation | 21. carrying capacity |
| 4. ecosystem | 13. species | 22. competition |
| 5. habitat | 14. adaption | 23. extinction |
| 6. symbiosis | 15. invasive species | 24. population |
| 7. mutualism | 16. taxonomy | 25. community |
| 8. commensalism | 17. genus | |
| 9. parasitism | 18. evolution | |

Choose a character from the "Finding Nemo" movie to research. Once you've done some preliminary research, state whether you believe that this species should be kept in captivity and why you chose this viewpoint.

26. Character that you will research: _____

27. Do you believe that these species should be kept in captivity?

28. What do your selected species feed on? _____

29. Do these species live in colonies, schools, or by themselves?

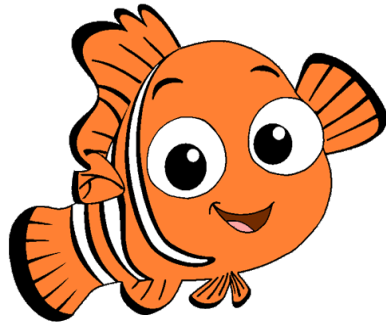
30. What is the success rate for keeping this species in captivity? _____

- **Create a presentation or project that supports your viewpoint with facts about the successfulness of keeping this species in captivity. Include additional information about your species.**
- **Be sure to answer the required questions regarding marine ecology (see assessment questions)**
- **Present the species you selected to the class using pictures or video of the species in its natural environment.**

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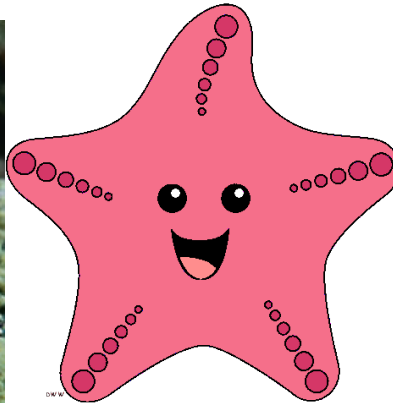
Part-2 Find the following information about these species from "Finding Nemo"



Movie Name

Scientific Name

Common Name:



Movie Name

Scientific Name

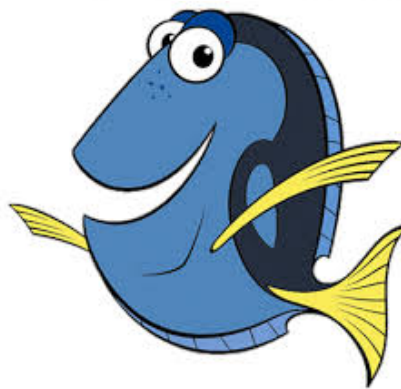
Common Name:



Movie Name

Scientific Name

Common Name:

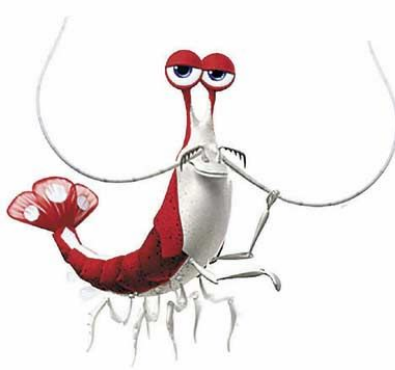


Movie Name

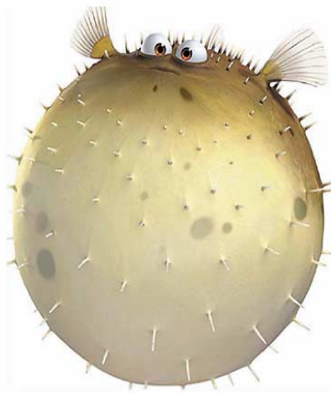
Scientific Name

Common Name:

The "Finding Nemo" Debate



Movie Name _____
Scientific Name _____
Common Name: _____



Movie Name _____
Scientific Name _____
Common Name: _____



Movie Name _____
Scientific Name _____
Common Name: _____

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Movie Name

Scientific Name

Common Name:



Movie Name

Scientific Name

Common Name:



Movie Name

Scientific Name

Common Name:



Movie Name

Scientific Name

Common Name:

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Part-3 Assessment questions to be answered (5 Points Each):

1. Explain how all organisms on Earth and in a particular ecosystem are interdependent of one another.
2. What do all living organisms on Earth require to live? What are these factors called?
3. Give some reasons as to why invasive species are introduced to foreign ecosystems? And, how do invasive species affect an ecosystem?
4. Should living organisms be kept in captivity? And, if so why? What benefits, if any, are there to keeping organisms in captivity?
5. What happens when an organism is removed from an ecosystem? Explain how this can affect the community.
6. How does habitat destruction affect the community that lives in that ecosystem?
7. How can a change in habitat affect speciation? And what events can change a habitat?
8. What is climate change and what is its cause as we understand it today?
9. How does climate change effect reef ecosystems?
10. What is the greenhouse effect? And, in what ways does the ocean help to reduce the overall process of the greenhouse effect on the planet?
11. Explain pH, and acid base interaction. Explain how ocean acidification affects the growth of marine organisms that have shells or bones of calcium carbonate.
12. Explain how ocean acidification and species reduction will affect the human population immediately and long term.
13. Explain the importance of taxonomic groupings and scientific names. Why is it important to have a scientific name for each species on the planet?