



Finding Nemo – Movie Poster Project (Hon. Bio)

As a group of four, you will be assigned the task of making a movie poster advertising the Ecology topics within the movie “Finding Nemo.” Each person in your group will be given a specific topic (and questions) to be focused on during the video. After viewing the video, your group will create a movie poster worthy of being placed outside a movie theater. The guidelines for the poster are below. Use as much color as possible and try to be as creative as possible with the layout, design and material in the poster, while making sure you have covered all of the guidelines for the poster.

THE DUE DATE FOR THIS PROJECT IS Friday, April 4, 2014 (Major test grade)

(NO LATE PROJECTS WILL BE ACCEPTED SO BE SURE YOU EXCHANGE CONTACT INFORMATION WITH YOUR GROUP MEMBERS)

Movie Poster Objectives:

The poster must include answers to the in-depth questions regarding the location, characters, and science-related themes of the movie. The location, characters and science-related themes should be covered individually and be well organized on the poster.

Each groups' poster should include the following:

- **LOCATION: (Poster MUST include 3 of the bullet points below)**
 - What is a coral reef?
 - How is a coral reef created?
 - What are the three types of coral reefs?
 - What differentiates one from another?
 - What is the Great Barrier Reef?
 - Where is the Great Barrier Reef located?
 - How large is it?
 - Why is the Great Barrier Reef so important to biologists?
 - What are three threats to the Great Barrier Reef?
 - Research coral reefs and the Great Barrier Reef
- **CHARACTERS: (Choose 3 characters)**
 - Nemo & Marlin, Squirt & Crush, Dory, Tad, Sheldon, Gill, Bloat, Peach, Bruce, Chum
 - For each character in the movie, include
 - A picture of the character (name labeled)
 - A picture of an example of the actual organism (scientific name & common name included)
 - A caption below the real-life organism picture that describes specific adaptations that allow the organism fits in the marine biome
- **SCIENCE-RELATED THEMES: (Poster MUST include 3 of the bullet points below)**
 - Describe the ecosystem of the aquarium in the dentist office
 - Describe how Marlin and Dory's relationship could be symbiotic.
 - Describe how both Marlin/Nemo have a symbiotic relationship with the sea anemone.
 - What *kind* of symbiosis is this?
 - Name three predator/prey relationships in Finding Nemo
 - Name three populations on the coral reef
 - According to what you see in the movie, are the seagulls herbivores, carnivores, or omnivores?

PLAGARISM WARNING! There are many resources available on the internet to help you with this project but be aware, DO NOT COPY AND PASTE ...Use your own words OR receive a *zero*! You must site all your sources with an annotated bibliography. The bibliography should include the URL of each website and a brief description of the information you used from each site for your part of the project. For images that you may choose to use pictures from the internet they must have the source pasted immediately underneath followed by the required caption(s).

Name: _____

Date: _____ Block: _____

“FINDING NEMO” LOCATION/SETTING EXPERT

Vocabulary to define BEFORE watching the movie:

- *biome*
- *adaptation*
- *coral reef*
- *marine biome*
- *benthic zone*
- cnidocytes*
- *symbiosis*
- *aphotic zone*

BEGINNING QUESTIONS FOR ALL GROUP MEMBERS:

Why did Coral and Marlin need a new “home”?

- What happens to Marlin and Corals’ eggs in the beginning of the movie?
- What theme in evolution does the number of eggs they produced refer back to?

Questions to answer WHILE viewing the movie:

- 1.
2. What is the setting of the movie?
3. Where do Marlin & Nemo live?
4. When Mr. Ray is singing at the beginning of “school” what aspect of the marine biome is he singing about?
5. Describe the coral reef as you can see it as Mr. Ray takes the students to the “drop off”
6. What happens to the scenery (i.e. appearance, colorful structures, etc.) as Marlin ventures away from the coral reef (in search of Nemo)?
7. How is the tank that Nemo is placed into similar to the ocean environment he came from?
8. How is the tank that Nemo is placed into different to the ocean environment he came from?
9. Describe the part of the ocean that Marlin & Dory have to go into in order to retrieve the mask?
 - a. What accounts for the light that they see?
10. What is the EAC and where does it go?
11. What structure do Dory and Marlin go over instead of going through?
 - a. When they get to the top of the trench, how is the water different?
 - b. What can they see from the top?

12. After Crush rescues Marlin; where is he?
 - a. What does it look like?
 - b. What do these structures *look* like?
13. What is the purpose of the pump in the tank?
 - a. When Nemo stops it, what is supposed to happen?
14. How do Dory and Marlin “exit” from the EAC?
15. What does the scenery look like when they exit the EAC?
16. Why can't Deb find “Flo” in the tank?
 - a. What accounts for the green scum on the sides of the tank?
17. Describe the “environment” inside the whale.
18. How do Dory and Marlin exit the whale?
 - a. Where are they now located?
19. What does Gill tell the others about Nemo before after he forces him down the sink drain?
20. Throughout the film, what have you noticed about the water?
 - a. Is it clear?
 - b. What may be the reason for this?
21. Where does the crab tell Dory that Marlin went?

Questions to RESEARCH AFTER viewing the movie:

Be sure that these items are included on your group's poster

1. What is a coral reef?
2. How is a coral reef created?
 - a. What are the three types of coral reefs?
 - b. What differentiates one from another?
3. What is the Great Barrier Reef?
 - a. Where is the Great Barrier Reef located (Include a description AND map)?
 - b. How large is it?
 - c. Why is the Great Barrier Reef so important to biologists?
4. What are three threats to the Great Barrier Reef?

Name: _____

Date: _____ Block: _____

“FINDING NEMO” CHARACTER EXPERT

Vocabulary to define BEFORE watching the movie:

- *invertebrate*
- *vertebrate*
- *mollusk*
- *sea cucumber*
- *camouflage*
- *mimicry*
- *ichthyology*
- *symbiosis*
- *adaptation*
- *tentacle*

BEGINNING QUESTIONS FOR ALL GROUP MEMBERS:

- Why did Coral and Marlin need a new “home”?
 - What happens to Marlin and Corals’ eggs in the beginning of the movie?
 - What theme in evolution does the number of eggs they produced refer back to?

Questions to answer WHILE viewing the movie:

- 1.
2. What kind of fish are Marlin & Nemo?
 - a. How might this be an adaptation for this organism? (HINT: Think of what they will eat and how rows of teeth would be helpful)
3. What does Marlin tell Nemo to do to the anemone before he leaves on his first day of school?
8. What happens to make Bruce start to attack Marlin and Dory?
4. How is Mr. Johansen adapted to the marine biome?
 - a. What is this type of adaptation called?
9. What does Jacques do to Nemo when he first enters the tank?
5. For what reason did the little octopus “ink” at the drop off?
10. What happens to Bloat when he argues?
6. What kind of organisms are Bruce, Chum, and Anchor?
11. How is Peach different from the other organisms in the tank?
7. What do you notice about the teeth in the mouths of Bruce and Chum?

12. Describe the organism that Dory and Marlin come into contact with after attempting to retrieve the mask in the aphotic part of the ocean.
13. What organism do Dory and Marlin meet on top of the trench?
 - a. What parts of the organism can Dory and Marlin safely touch?
14. What organisms rescue Dory and Marlin after the jelly-fish field?
 - a. What do you notice about the appearance of Crush compared to the appearance of Squirt?
15. Why does Marlin trust Dory to call over the mysterious organism after they exit the EAC?
 - a. What does the organism turn out to be?
16. How is the inside of the whale's mouth different from that of the sharks' mouth seen earlier in the movie?
17. Describe what Peach looks like, what are all over the surface of one side of her body?
18. How is Nigle adapted with respect to transporting Dory & Marlin?
 - a. How may this help organisms like him in real-life?
19. How does Dory "make" the crab tell her which way Marlin went?
20. What do you notice about the coloration of Dory, Nemo, and Marlin; compared to the fish at the fishy grounds who are not originally from the coral reef?
21. Why does Nemo have his "lucky fin"?

Questions to RESEARCH AFTER viewing the movie:

Be sure that these items are included on your group's poster

Nemo & Marlin, Squirt & Crush, Dory, Tad, Sheldon, Gill, Bloat, Peach, Bruce, Chum

1. For each character listed above, include
 - a. A picture of the character (name labeled)
 - b. A picture of an example of the actual organism (scientific name & common name included)
 - c. A caption below the real-life organism picture that describes specific adaptations that allow the organism fits in the marine biome

Name: _____
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“FINDING NEMO” SCIENCE-RELATED THEMES EXPERT

Vocabulary to define BEFORE watching the movie:

- *symbiosis*
- *predator-prey relationship*
- *adaptation*
- *mutualism*
- *food web*
- *nematocysts*
- *parasitism*
- *camouflage*
- 1.
- *commensalism*
- *mimicry*

Questions to answer WHILE viewing the movie:

- 2.
3. What is the first predator-prey relationship shown in the movie?
4. What does Marlin tell Nemo to do to the anemone before he leaves on his first day of school?
5. What does Mr. Ray and the class discover upon arriving at the “drop-off”? Why is it so interesting?
6. What is the meeting with Bruce, Chum, and Anchor regarding?
 - a. How is the relationship between Bruce, Dory and Marlin unlikely in the real ocean setting?
7. What kind of relationship would Bruce and Marlin have in a real ocean setting?
8. Jacques cleans Nemo when he first enters the tank; what kind of symbiotic relationship is this?
9. When Nigle comes to the window and apologizes to Nemo, what is he apologizing for?
 - a. What kind of relationship is he referring to?
 - b. What would Nigle be in this relationship?
 - c. What would Nemo have been in this relationship?
10. How are Dory and Marlin lured toward an organism when they are in search of the mask into the dark depths of the ocean?

- a. What kind of adaptation might this be for that organism?

11. How do the fish who do the impressions travel?

- a. How might this be advantageous to these organisms?

12. What organism do Dory and Marlin meet on top of the trench?

- a. What happens when Dory touches the jellyfish?

- b. Why can Marlin touch it and it not effect him as much as it effects Dory?

- c. What parts of the organism can Dory and Marlin safely touch?

13. How many jellyfish do Dory and Marlin find after going over the trench?

14. What do you notice about the difference in “parenting” of Crush for Squirt compared to Marlin for Nemo?

15. What organism do Dory and Marlin meet after they exit the EAC?

- a. What does the organism feed on naturally?

- b. Dory and Marlin are not naturally food, how do they get “eaten”?

16. How does the whale communicate with Dory?

- a. What does it sound like?

17. How do Dory and Marlin exit the whale?

18. What happens to Dory and Marlin at the docks?

- a. What kind of relationship is this between the Gerald the pelican and Dory/Marlin?

19. What happens to the population of fish at the “fishing grounds” after the net from the boat comes down?

- a. How does this effect the *natural progression* of a population? (HINT: Think of how this impacts natural selection)

Questions to RESEARCH AFTER viewing the movie:

Be sure that these items are included on your group's poster

1. Describe the ecosystem of the aquarium in the dentist office
2. Describe how Marlin and Dorey's relationship could be symbiotic.
3. Describe how both Marlin/Nemo have a symbiotic relationship with the sea anemone.
 - a. What *kind* of symbiosis is this?

4. Name three predator/prey relationships in Finding Nemo
5. Name three populations seen in the movie that are found on the coral reef
6. According to what you see in the movie, are the seagull's herbivores, carnivores, or omnivores? Explain.