

Colusa County 4-H *Marine Biology & Oceanography* Proficiency Program



LEVEL II – PRODUCER

NAME: _____

CLUB: _____

PROJECT: _____

1. Describe ten ways we can help keep our oceans, beaches, rivers and land as close to natural as possible.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

2. Explain the importance of estuaries to marine life.

3. Name and describe four dangerous marine animals and explain why they may be dangerous.

1. _____
2. _____
3. _____
4. _____

4. Assemble a beach safety kit.

Project leader's signature

date

5. Visit an established operation or expert in the field (such as a commercial fishing vessel, cannery, biologist, etc.) and learn what they do and how they do it.

What I did: _____

Project leader's signature

date

6. Describe the function of dunes.

7. Using your local news media, identify a policy issue related to your project and explain its significance to another person.

What I did: _____

_____ *Project leader's signature* _____ *date*

8. Explain El Nino and describe how it affects the seafood industry.

_____ *Project leader's signature* _____ *date*

9. Participate in a project related clean-up activity.

What I did: _____

_____ *Project leader's signature* _____ *date*

10. List five causes of boating accidents and explain how they can be avoided.

1. _____
2. _____
3. _____
4. _____
5. _____

11. Explain upwelling and its effect on climate and marine life.

12. Collect and identify three different phytoplankton and three different zooplankton and explain how they are different.

Phytoplankton

1. _____
2. _____
3. _____

Zooplankton

1. _____
2. _____
3. _____

13. Make a collage of photographs or drawings illustrating man's use of the marine environment and display it at a local fair, county 4-H event or similar public event.

_____ *Project leader's signature* _____ *date*

14. Prepare one food dish from fresh fish and one food dish from marine algae.

What I did: _____

_____ *Project leader's signature* _____ *date*

15. Name five types of fresh fish and/or shellfish produced by aquaculture.

1. _____
2. _____
3. _____
4. _____
5. _____

16. Identify and describe three different types of fishing vessels and three different types of fish harvesting gear. Explain which vessel uses which gear to harvest which fish.

	<u>This vessel</u>	<u>Uses this gear</u>	<u>To catch this fish</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

17. Identify three types of ropes and five knots used in the industry. Compare their relative strengths and where/how each might be used.

	<u>Types of Ropes</u>	<u>Strengths</u>	<u>Use</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

	<u>Types of Knots</u>	<u>Strengths</u>	<u>Use</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

18. Determine the age of three fish samples by collecting and analyzing their scales.

- 1. _____
- 2. _____
- 3. _____

19. Collect, press and mount three different algae and describe their physical characteristics.

- 1. _____
- 2. _____
- 3. _____

Project leader's signature *date*



Congratulations!
You have completed Level II of the Marine Biology & Oceanography Proficiency Program.

Name _____ Age _____

Club _____

Project _____

Project Leader's _____

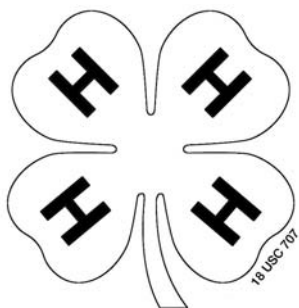
Printed Name Signature

Date _____

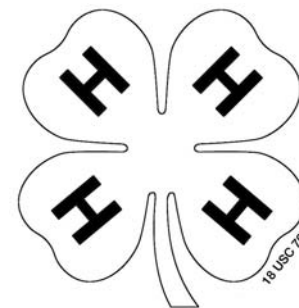
County Coordinator's _____

Printed Name Signature

Date _____



Certificate of Achievement



This certifies that

has completed Level II of the Marine Biology & Oceanography Proficiency Program in the Colusa County 4-H Youth Development Program.

Project Leader's Signature

Date

County Coordinator's Signature

Date

∞ MAKING THE BEST BETTER!! ∞