

Lesson Plan for Introduction to Marine Science
Marina Del Rey M.S.
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Squid Dissection

Background

I've had the squid dissection charts from the Natural History Museum's Seamobile workbook for two years now, but haven't had the experience or motivation to implement it. Dr. Hamner's lectures and Scott Sperber's presentation couched the squid dissection in the context of diversity, food webs, and policy. I am using it next semester. Plus, I made the tentacles into a very tasty lunch the next day. See the Podcast at this URL:

<http://ybelinda3.googlepages.com/marinescienceseminarclassactivities2>

California State Standards

- 1f. know that as multicellular organisms develop, their cells differentiate (evidenced by the different tissues and organs)
- 3e. know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival (fishing and eating lower on the food chain)
- 5. The anatomy and physiology of plants and animals illustrate the complementary nature of structure and function.

Materials One squid per student pairs, dissection trays, scissors, probes, goggles, aprons, newspaper, and lemon juice (neutralizes the smell on hands after cleanup). Stovetop, frying pan, oil, salt, vegetables optional (parent permission for consumption of the specimens must be obtained first)

External Structure of the Squid

Introduction: Students review the levels of organization with a "Brain dump" (write for 2 minutes all you know about the topic)
Pair-share ideas and share as a class (5 minutes).

Through: Using Cornell Notes, students title their paper "External Squid Dissection", draw the external features with dots using pencils (pointillism) and labels. Write 3 comments or questions, minimum, on the side of the page. Write a 2-sentence minimum review statement on the bottom of the page.

Out: By studying the external structures, what kind of adaptations do you think this organism has? Make a T-chart (structure vs. function or adaptive advantage)

Internal Structure Introduction: a. What kind of internal organs do you think may be found inside the squid?
b. (after) How were your predictions correct and incorrect?

Repeat the Through and Out for the internal structures.

The End