Spiny dogfish shark essay

Jeremy Cotto Purpose We did this lab to further our understanding of Spiny dogfish shark anatomy and make the class more entertaining. People dissect organisms to find reasons for how they are able to do certain things. For example, the shark can chew through a great variation of things, because it has razor sharp teeth. I attempted to see what organ was connected to what and learn how squid differ from the human organ structure. I've learned that the structure of the organs inside a shark are different of that of a humans for many reasons.

One being that a squid has an extremely oily liver that helps it keep buoyancy in the ocean, another would be it does not have any bones in its body unlike a human. (A person showing the anatomy of the Spiny dogfish shark.) Background Information The Spiny dogfish shark (Squalus acanthias) is a grey or brownish color on top and pale grey or white on its bottom side with white spots on the top and sides of its body. Males can grow up to 3 feet while the females can grow up to 5 feet. The Spiny dogfish shark can be found at temperatures between 0 and 15 °C from 10 to 200 meters below.

This shark can feed on multiple types of organisms. It can feed on krill, crabs, jellyfish, cod, ect. Known predators of this shark are larger sharks like the Great white, and larger fish like some species of rockfish. Females each have 2 to 12 eggs per season. They bear live young, after a period of about 18 to 24 months, and typically produce 2 to 15 pups. they can live from 30 to 40 years. Materials 1. Spiny dogfish shark 2. Dissecting probes 3. Scissors 4. Dissecting cloth sheet 5. Gloves 6. Forceps 7. Scalpel Procedure 1. Receive the shark on the cloth. . Put on your gloves. 3. Use the probe to observe the roughness of its scales 4. use probe to follow and observe the lateral line. 5.

Use the probe to observe the spiracle. 6. Use the probe to observe the sharks gill slits. 7. Look closer in order to see the ampullae of lorenzini. 8. Then the probe to observe the nostrils. 9. Check to see if it is a male or female, it is a male if it has claspers. 10. observe the pelvic, dorsal, caudal, and pectoral fins using your probe and forceps. 11. Use the scissors to carefully cut open the shark from its bottom side. 2. Begin to feel the sharks oily liver and observe all three part of it. 13. Take a minute to look at all of the organs of the shark. 14. Use the probe to move the liver and look at the esophagus and stomach of the shark. 15. Cut open the stomach to see if there is any food inside. 16. Examine the heart of the shark. 17. Observe the small intestine of the shark. 18. Keep whatever souvenir you would like. 19. Clean up Conclusion A) I observed the eyes, nostrils, and the lateral line. The eyes let the shark see even though its eyesight is poor.

The nostrils allow the shark to smell it next meal from a mile away. the lateral line help sense movement around the shark. B) The gills allow the shark to breathe underwater, water goes into the mouth of the shark and then is forced out through the gill slits. C) A cartilaginous skeleton is better than a bony one because it can fit into smaller areas not having to worry about anything being crushed, however it does not have as much protection as the bony skeleton gives to its organisms. D) The purpose of the oily liver helps regulate the sharks buoyancy.

The oil helps the shark float because water and oil cannot truly mix together, when oil is put into water it simply sits on the top of the water creating its own separate layer. E) Bony fish have gill covers while cartilaginous do not. Cartilaginous fish can reproduce internally. And bony fish have bones while

cartilaginous do not. However, both fish have the same type of fins. They both have a lateral line. And each swim using their caudal fin. F) The purpose of the sharks coloration is so that if you’re looking fro above it will be hard to see and if you look from below the shark, the shark will still be hard to see.

This is called countershading. G) I believe the Spiny dogfish shark is a fast swimmer because it has a slim body which allows the water to glide off the shark and its caudal fin has a larger top than bottom portion giving it more speed. H) I have learned that the sharks heart is one of the smallest organs in its body. I also learned that the small intestine is not like a humans at all, instead of long and stringy its short and stocky. Also the shark has rows of teeth that can replace the previous teeth if they fall out. t was helpful learning about the anatomy of a shark because it can give people a better knowledge of how they do what they do and why they are so different from us and yet even have some similarities. Bibliography * Fordham, S. , Fowler, S. L. , Coelho, R. , Goldman, K. J. & Francis, M. 2006. Squalus acanthias. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012. 2. < www. iucnredlist. org>. * Bester, Cathleen. “ Dogfish Sharks. ” Shark Savers ::. Florida Museum of Natural History, n. d. Web. 19 Apr. 2013.