



Sharks Under Siege
Activity Package





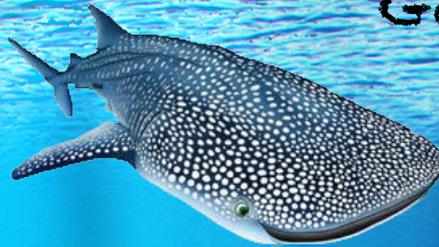
Bob



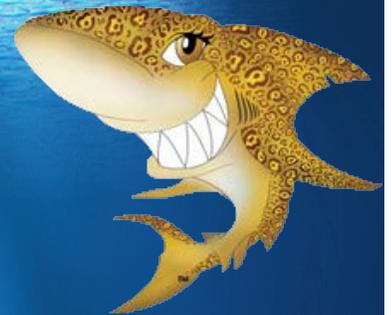
Gates



Norman



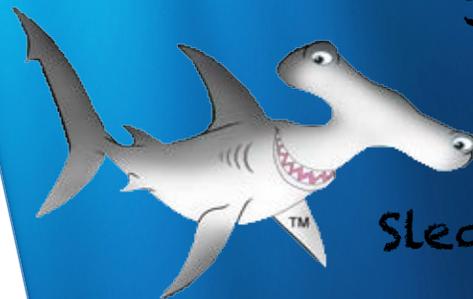
Wyatt



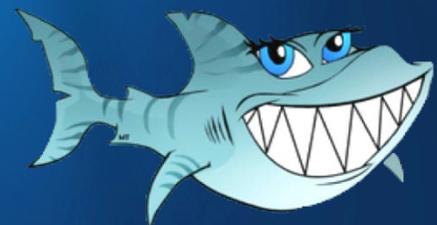
Jillian

Sharks Are In Trouble!

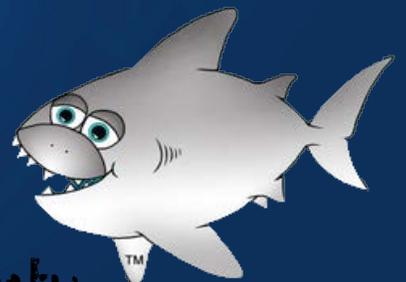
Join the sharky crew as they work their way through each challenge to learn more about human activities that are putting sharks at risk. Over 25% of shark and ray species are threatened with extinction and some species populations have been reduced by up to 90%. Grab a pencil and dive into an ocean world that can't survive without sharks!



Sledge



Tilly



Monty

Vocabulary - Connecting Terms

___ Shark Finning

___ Apex Predator

___ Ecosystem

___ Squalene

___ Bycatch

___ Population

___ Cartilage

___ Overexploitation

___ Endangered

___ Coastal Development

___ Recreational Fishing

___ Life Cycle

A. All of the individuals of the same species living within a given area.

B. A naturally occurring substance found in large quantities in shark liver oil.

C. Animals, plants and nonliving things that make up an environment.

D. Strong, flexible connective tissue that forms the skeleton of sharks.

E. An animal at the top of the food chain with no natural predators.

F. The removal and retention of shark fins while the remainder of the shark is discarded in the ocean.

G. A series of changes that happen to an organism over the course of its life.

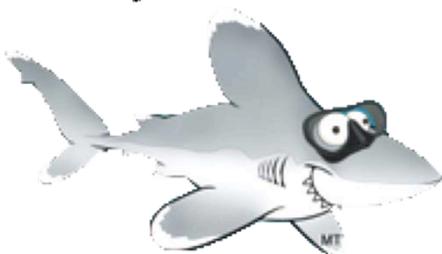
H. In danger of becoming extinct if actions are not taken to protect it.

I. Fish or other marine animals that are caught unintentionally while fishing.

J. Steadily turning coastlines into new housing, holiday homes, and tourist developments.

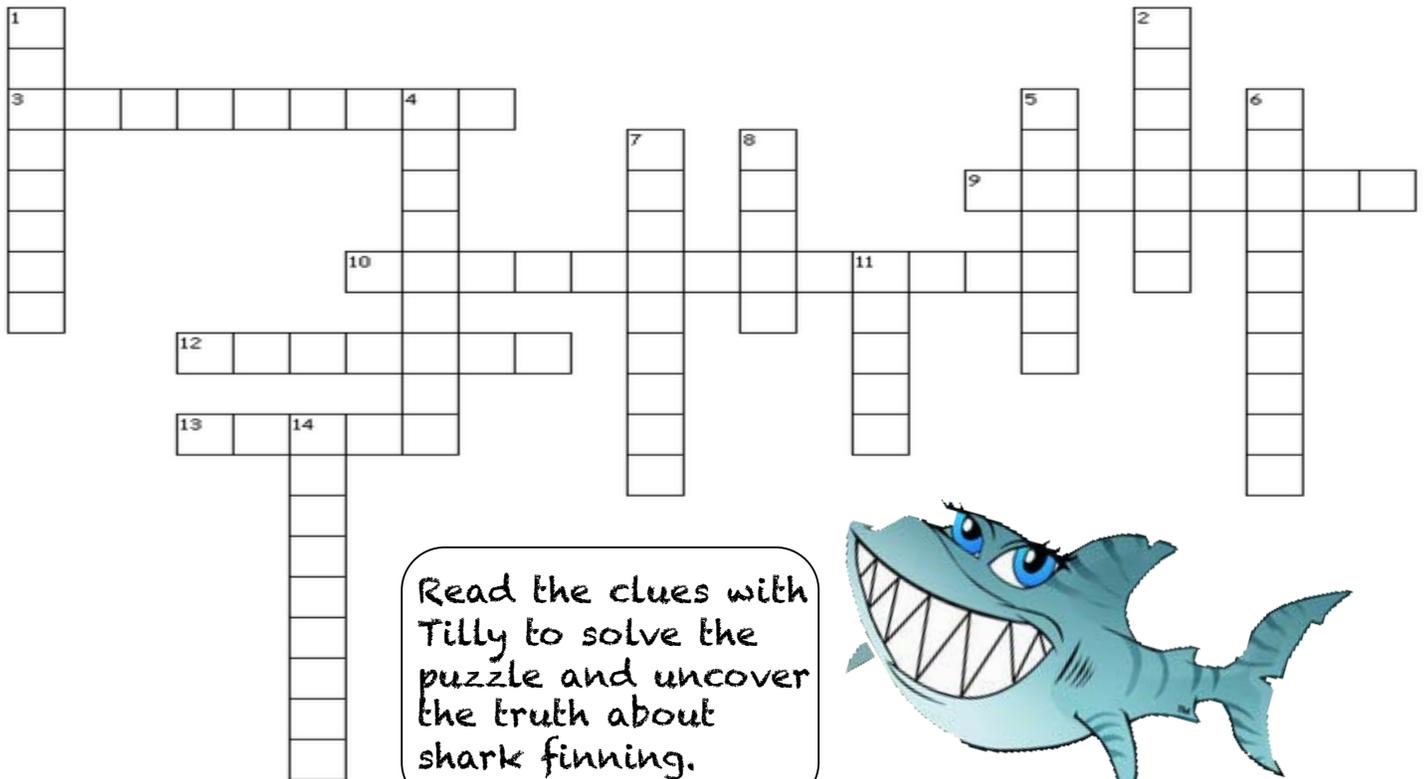
K. fishing for pleasure or competition.

L. harvesting species from the wild at rates faster than natural populations can recover.



Here are some terms related to shark threats, help Bob learn about them by connecting them to their proper definitions.

Shark Finning Facts Crossword Puzzle



ACROSS

3. _____ are strings of hooks that can stretch for over a 100 miles and are the most significant cause of shark population loss.
9. The country of _____ is the largest importer of shark fins in the world.
10. Due to the number of sharks taken and their slow reproduction rates, shark finning is a _____ fishing industry.
12. Shark finning is now a multi-_____ dollar global industry.
13. Shark fin has no _____, the soup must be flavoured with beef or pork broth.

Down

1. Shark fin soup is considered to be a great _____, a highly desired food item in many Asian countries.
2. In many countries it is now _____ to practice shark finning, but it is still occurring.
4. A kilogram of shark fin can sell for up to \$400, making it one of the most _____ seafood items in the world.
5. Up to 95% of the shark meat is wasted, what could be a significant source of _____.
6. Entire _____ will collapse if sharks are removed from our oceans.
7. Areas of the ocean that are _____ aren't always safe for sharks as illegal shark fishing still occurs.
8. We dump lots of chemicals into our oceans, as top predators they accumulate in sharks, making their flesh _____ for humans to eat.
11. When the fins are removed from a shark they are often dumped back into the ocean while still _____.
14. Unable to swim after being dumped back into the ocean without their fins, many sharks sink to the ocean floor and slowly _____.

Coastal Development Scramble

Help Gates focus on 2 habitats in jeopardy due to overdeveloping our coastlines.



GOSEMNARV

Highly productive forests found in subtropical regions that act as a natural barrier between the sea and the land. One of the most biodiverse and most threatened ecosystems on the planet.

USERNYR

The prop roots provide a perfect sanctuary for the birth of young sharks and a protective area to grow up and feed, safe from predators.

LCEARNGI

The act of removing these unique trees for lumber and land. Over 35% of our planet's mangroves have been lost.

RSEROTS

Tourism is leading to more demand for beaches to be cleared and more land to be developed for these all inclusive accommodations.

OALCR EFERS

These structures are formed over millions of years by tiny animals called polyps. Called the rainforests of the sea due to the large amounts of biodiversity they support, sharks utilize them for refuges and feeding grounds.

RGNIDDEG

To create deeper channels and reclaim land from the sea, large amounts of sediment are removed from the ocean floor. This process creates silt that covers and suffocates coral structures.

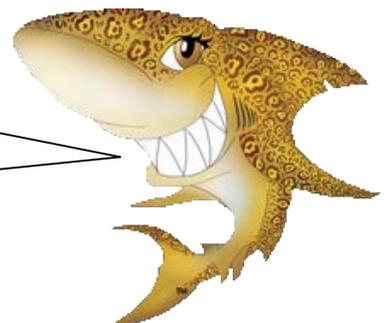
TIZFRERELI

Great for crops, but when it runs off into rivers it is carried out into the ocean. It stimulates the growth of algae, smothering delicate corals.

RSIGNI

Thanks to global warming, this is happening to sea levels making it more difficult for sunlight to reach coral.

Mangrove forests provide humans with billions of dollars in free services. They produce seafood, fruits, medicines, fiber, and wood. They stabilize shores by trapping sediments and building land. They improve water quality by filtering runoff and polluted waters. They protect the climate by absorbing carbon dioxide.



Other Threats Facing Sharks

Supplements

Shark cartilage is used to create supplements to treat a variety of ailments including arthritis, inflammation and even cancer. There is a myth that sharks don't get cancer and that somehow taking these supplements can prevent and even cure cancer. There is no scientific evidence to back these claims up and sharks do in fact get cancer. Shark liver oil is believed to have immune boosting and anti-cancer properties. Again, there is absolutely no scientific data to support these claims.



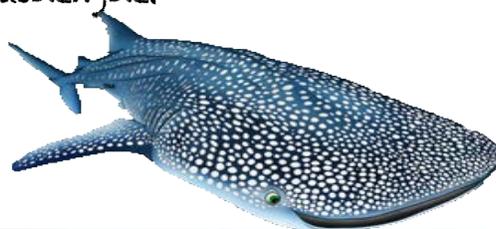
Souvenirs

Many tourist destinations, including Hawaii and Florida, sell parts of sharks as souvenirs. Teeth are popular items, but unless they are fossilized, there is no way to know how they were acquired. Skin is another item that can be purchased and full jaws are very popular. Probably the most shocking is that entire juvenile sharks can be purchased, preserved in bottles of formaldehyde.

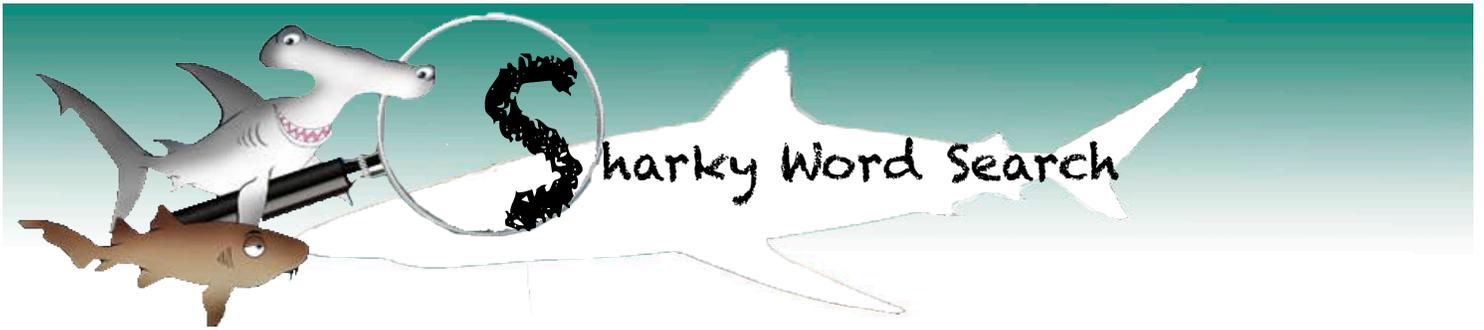


Bycatch and Longline Fishing

The incidental capture and death of non-target marine animals during fishing is known as bycatch. This is one of the principal threats to marine biodiversity worldwide with as much as 7.3 million tons of non-target species captured each year. As many as 50 million sharks are caught in this fashion. In the past, many were thrown back into the ocean, with the potential to survive. Now, with fins being so lucrative, many are finned and tossed back into the sea. Longline fishing involves setting strings of thousands of hooks up to 150km long. As much as 50% of the catch is shark species, but many sea birds, turtles and other fish are caught. There are over 5,000 longline fishing boats in operation, many fishing illegally in protected areas. Fishing for sharks in this way is unsustainable due to the large number of sharks taken and their slow reproduction.



Marcia Moreno-Baez, University of Arizona/Marine Photobank



Apex Predator

Bycatch

Cartilage

Conservation

Ecosystem

Habitat Loss

Life Cycle

Population

Shark Finning

Souvenirs

Squalene

Toxic

S	A	S	V	L	Z	C	K	P	S	B	E	K	C	N
O	P	E	S	M	I	D	I	Q	F	G	Y	O	Z	O
U	E	M	R	O	C	F	U	X	A	Y	N	N	F	I
V	X	U	B	V	L	A	E	L	O	S	O	F	V	T
E	P	U	D	G	L	T	I	C	E	T	O	H	X	A
N	R	M	S	E	S	T	A	R	Y	E	D	M	H	L
I	E	Y	N	R	R	R	V	T	N	C	F	I	Q	U
R	D	E	Z	A	U	A	Z	V	I	J	L	F	I	P
S	A	D	C	R	T	Y	I	V	V	B	V	E	R	O
S	T	G	N	I	N	N	I	F	K	R	A	H	S	P
K	O	V	O	Z	H	N	X	O	N	J	G	H	B	K
M	R	N	E	C	O	S	Y	S	T	E	M	V	D	J
O	W	B	I	Q	D	F	K	C	U	S	L	C	R	N
V	Z	C	H	C	T	A	C	Y	B	I	H	B	Y	V
U	T	D	J	Z	Y	P	H	T	K	D	B	J	Y	S

Help Sledge and Norman pick out the hidden words by looking across, up, down, diagonally and even backwards to find the hidden words.



Saving Sharks 7 Days of the Week

Monday: Make a Poster. Share your favorite shark and some JAWSOME shark facts.

Tuesday: Tell someone approximately 100 million sharks are killed each year.

Wednesday: Wise decisions on what you buy. Do NOT buy shark products. (Shark meat, Shark cartilage & shark jaws).

Thursday: Think about the seafood you eat. Make sustainable choices.

Friday: Fins belong on sharks NOT in soup. Do not buy shark fin soup or support restaurants that sell it.

Saturday: Support Shark Sanctuaries and better protections for Sharks

Sunday: Shark Club. Join and take the pledge to do your part to save sharks.

www.sharks4kids.com

Activity Answer Sheet

Word Search Answers

Crossword Answers

Across

- 3 Longlines
- 9 Hong Kong
- 10 unsustainable
- 12 billion
- 13 taste

Down

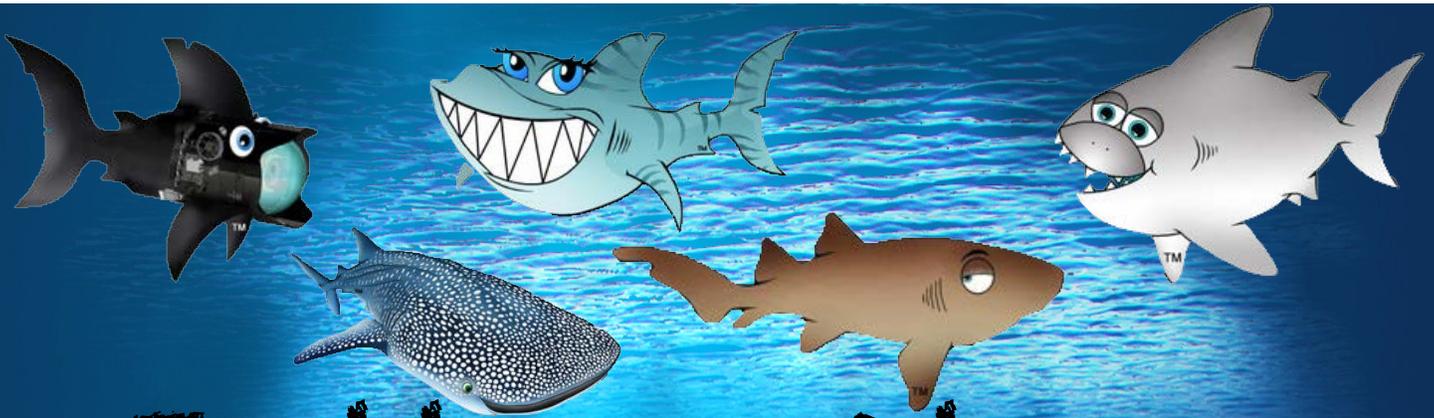
- 1 delicacy
- 2 illegal
- 4 expensive
- 5 protein
- 6 ecosystems
- 7 protected
- 8 toxic
- 11 alive
- 14 suffocate

Word Scramble Answers

- Mangroves
- Nursery
- Clearing
- Resorts
- Coral Reefs
- Dredging
- Fertilizer
- Rising

Vocabulary Matching

- F
- E
- C
- B
- I
- A
- D
- L
- H
- J
- K
- G



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