

SAFE
SAVING ANIMALS
FROM EXTINCTION
SHARK AND RAY



TOGETHER FOR SHARKS!

TOOL KIT



Objectives

To engage zoo and aquarium visitors and online audiences in activities, programs, and social media campaigns to raise awareness about the AZA SAFE Shark and Ray conservation program and to inspire individuals to take positive conservation actions to protect the ocean.

Goals:

- Drive our internal audiences to SAFEsharks.org for resources
- Provide actions to engage in-person and online audiences in shark and ray conservation
- Promote the collective work of AZA SAFE Shark and Ray partners
- Offer opportunities for AZA institutions to raise funds to support shark conservation programs through AZA SAFE

Audience: AZA-accredited zoos and aquariums, SAFE Shark and Ray program partners, and conservation partners celebrating Shark & Ray Awareness Day.

Benefits

We know our audiences LOVE sharks, and Shark & Ray Awareness Day is an opportunity to "talk shark" and share your important conservation work with visitors, both online and in-person. As AZA's conservation brand, SAFE programs allow us to inspire our participants to get involved, while elevating the important work we are doing every day. This packet contains all the information you will need to host a successful and fun event at your zoo, aquarium or online!

TOGETHER FOR SHARKS!

Use the hyperlinks below to help guide you through this document.

| | |
|---|---|
| <u>KEY MESSAGES</u> | Create effective talking points and content for your audiences |
| <u>SOCIAL MEDIA</u> | Easy, fun and customizable content to share with online audiences |
| <u>FUNDRAISING</u> | Ideas for supporting SAFE while celebrating sharks and engaging new audiences |
| <u>EDUCATOR RESOURCES & SELF-GUIDED ACTIVITIES</u> | Curriculum, web-based resources, virtual lessons, guided and self-directed activities for in-person and online visitors |

KEY MESSAGES - TOGETHER FOR SHARKS!

Shark & Ray Awareness Day 2024 is all about working together for conservation. The power of SAFE is in the many organizations working collaboratively to have a positive impact on the future for sharks and rays. Sharing our knowledge, learning from each other and speaking up with one voice for the things that matter.

There is power in collective action and we can share that message with our visitors and followers. Using this theme, we can engage audiences in the incredible value of sharks, while also promoting conservation actions and elevating our own shark conservation efforts through SAFE. **Our messaging toolkit highlights the following tips for engaging visitors:**

Messaging should aim to...

- Include a specific conservation-related ask for participants and give them a way to contribute/act while on-site. Don't assume visitors won't contribute or engage with the conservation ask.
- Highlight the power of collective action and inspire visitors to connect and engage with specific programs or campaigns.
- Share the collaborative work of AZA institutions and global shark scientists through AZA SAFE: Sharks and Rays.

Less effective messaging will...

- Leave visitors concerned but with no idea how they can help.
- Provide actions for visitors which don't have a clear link to the problem.
- Provide too many actions for visitors, leaving them confused or overwhelmed.

AZA Zoos and Aquariums are everyday Shark Superhero's providing the highest quality of care and wellbeing for sharks and rays, while working collectively to SAVE and protect threatened species.

Example: *With over 1,200 diverse species, sharks and rays range from commonly misunderstood to entirely unknown. Our understanding of sharks and rays is ever-evolving. New species are being discovered and described all the time. But there is still much to be learned. Here at [Z/A], we have X species in our care, including [call out some fan favorites] and X superheroes who care for them.*

Sharks and Rays are the "Superheroes" of the ocean!

Example: *Over the course of 400 million years, a staggering array of 1,200 species have evolved into various shapes, sizes and characteristics. Many play critical roles in marine food webs and ocean health. From filter feeding species, like Whale Sharks and Basking Sharks, to top ocean predators. Sharks are superheroes that protect a thriving and balanced ocean environment for people and wildlife!*

Highlight your Z/A as a "Shark Superhero Partner" by working with, and supporting SAFE Shark and Ray, in addition to your own shark conservation efforts.

Example: *AZA institutions like ours work with conservation partners, like SAFE, to protect sharks and rays. And it's helping! Our collective efforts have supported legislative actions and science-based fishery management to protect sharks in the wild. Overfishing is the primary threat for 100% of threatened sharks. Supporting campaigns that address excessive and unsustainable fishing practice and insisting on sustainability when we shop are simple way to help towards better ocean health.*

SOCIAL MEDIA TOOLS

Social Media

Social media content should be focused on the actions and successes of AZA partners in shark conservation and highlight how collective action bolsters our conservation impacts.

MESSAGING

On July 14th, the world's aquariums and zoos - influential collective forces for engaging the public in conservation and decision making - together with their audiences, celebrate Shark & Ray Awareness Day.

As a SAFE partner or contributor, your institution's participation - and that of your social media followers - is a key component of creating a united international effort to raise awareness and encourage action to create a sustainable future for wild shark and ray populations. This multi-point event includes activities and special events at aquariums and zoos around the globe.

SAFE Shark and Ray Social: Click the icon to follow, like, and share our posts:



WEBSITE: Visit www.SAFESHARKS.org for information on our projects and work to share.

HASHTAGS: #TogetherForSharks, #SAFESHARKS, #SharkSuperHeroes

SAMPLE POSTS: Use these examples to build your own shark and ray social media posts, or use the premade tiles provided.

- “Aquarium professionals - working together - are creating handling guides to improve the welfare of animals in our care and in the wild .”
- “Speaking with one voice, over 50 institutions have submitted letters of support for key shark conservation policy initiatives.”
- “Using collective buying power, SAFE partners are transforming the sustainability of feed for aquatic animals in human care.”
- “Find out how you can get involved in community science next time you're at the beach – each record is like a piece of a jigsaw puzzle that helps us understand sharks and rays.”
- “Join people from around the world speaking up for some of the most threatened sharks and rays in the worlds ocean.”

Shark Shorts: [Download, view, and share](#) fun shark video content from Shark Trust.

INVITE VISITORS TO JOIN YOU IN TAKING CONSERVATION ACTIONS

- Share your action on social media and use the hashtags #TogetherForSharks, #SAFEsharks, #SharkSuperHeroes
- Share your experience learning about these amazing animals and SAFE partners' work to protect them -- and use the hashtags #TogetherForSharks, #SAFEsharks, #SharkSuperHeroes
- Sign the [Big Shark Pledge](#) and use your voice for high seas sharks.
- Share your favorite shark and ray superpower on social media so other people learn about it - and use those hashtags!
- Pledge to do one thing to help sharks and rays, like using [shark-safe cosmetics](#), eating only sustainable seafood, or supporting media that portrays these amazing animals in a positive way, while focusing on conservation efforts to save them.
- Join, donate or volunteer to science-based conservation organizations like SAFE. Your support helps us continue to research and protect sharks and rays.

SOCIAL TILES: Pre-made engaging and easy to share posts, **customizable with your logo**, to use on a variety of platforms. Access these customizable tiles, and our SAFE Shark and Ray, and Shark & Ray Awareness Day logos [HERE](#).



FUNDRAISING

Shark & Ray Awareness Day provides AZA partners with an excellent opportunity to raise funds for SAFE Shark and Ray. By financially supporting this global conservation program, you are making a commitment to enable coordination, development, and delivery of conservation objectives.

The posters on the next page are also available in 18x24 format. Download them by visiting our [Shark & Ray Awareness Day folder](#).

Here are a few easy ideas to consider:

- On Shark & Ray Awareness Day, support our ambitious program by holding a fundraiser for SAFE Sharks and Rays in your community. Collaborate with your volunteers, teen audiences, local groups (such as youth organizations, other conservation organizations, youth groups, schools, etc.) to organize an event at your facility or in the community!
- Use "round-up for conservation" funds from your event in support of SAFE Shark and Ray.
- Share a percentage of retail sales for certain items, or the sales during the day of your event, as a great way to engage visitors in conservation action in support of SAFE.
- Share the fundraiser poster/image on the next page during your online and in-person events to encourage donations in support of SAFE Shark and Ray.
- **Suds for Sharks** events are fantastic opportunities to work with local breweries and/or restaurants to engage new audiences in your mission! Event proceeds, silent auctions, and even interactive games like shark trivia or bingo can help you raise funds for SAFE. Our team is happy to help you plan, just email: windykent@safesharks to get started.



READY TO DONATE?

Click [HERE](#) or Scan the QR code

to be directed to the SAFE Shark and Ray donation page

For check deposit, please make payable and mail to:

AZA SAFE Shark and Ray/Seattle Aquarium
1483 Alaskan Way, Pier 59, Seattle, WA 98101-2015

BAM!

BE A SHARK SUPERHERO

DONATE NOW!

Your tax-deductible donation helps us to use our collective superpowers to save sharks and rays from extinction.





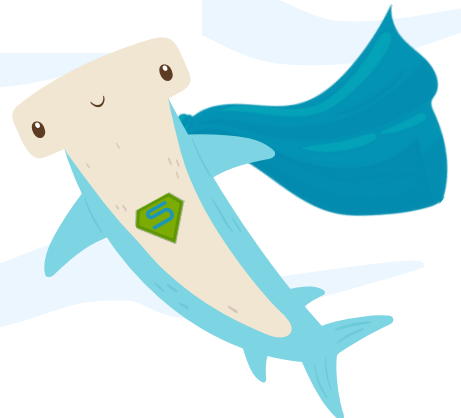
BE A

SHARK SUPERHERO

TAKE THE BIG SHARK PLEDGE!



SHARK & RAY **14** **JULY**
AWARENESS DAY





ACTIVITY PACKET

Shark & Ray Awareness Day 2024 is all about working together. The power of SAFE is in many organizations working collaboratively to have a positive impact on the future for sharks and rays. Let's share our knowledge, learn from each other, and speak up with one voice for the things that matter!

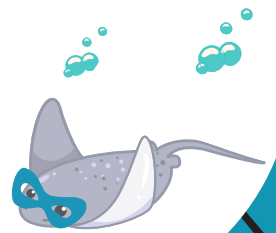
TOGETHER FOR SHARKS!

BAM!

CURRICULUM FOR EDUCATORS

These resources can be used for:

Discovery Carts
Classroom Activities
Camp Activities
On-the-floor Activities



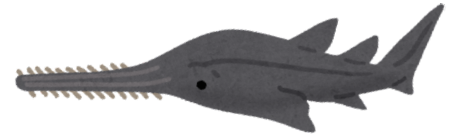
FIND YOUR PREY!

Sawfish Rostrum Activity

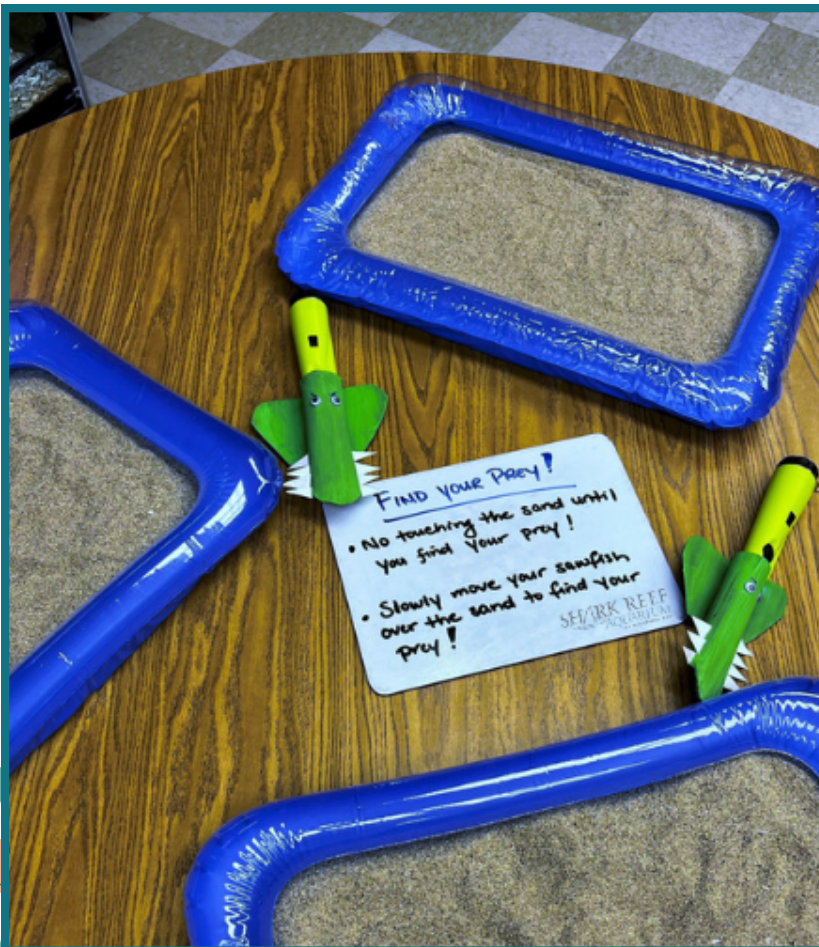
Introduction: Sawfish are a unique endangered species of ray with an incredibly long nose! A sawfishes' **rostrum** or nose, have special senses that allow them find prey under the sand! See for yourself!

Materials / Setup Instructions:

- **Habitat:** Containers with sand or gravel.
- **Sawfish:** Handheld metal detectors, decorated to look like sawfish.
- **Prey:** Small toys of sawfish prey with pennies superglued to the back. You can also print and laminate sawfish prey and attach metal paper clips or pennies to the back (pennies work best). Bury them just below the surface of the sediment.



Directions: No touching the sand! Kids take a “sawfish” and hover over the sand. When you hear the beep, gently uncover the prey with your hand! Find as many prey as you can in 20 seconds!



Working Together

Did you know that many sawfish, like sharks, are endangered due to habitat loss, overfishing, and bycatch? **How can YOU help?**



Share your favorite ray superpower on social media



#SAFEsharks
#SharkSuperHeroes
#TogetherForSharks



Sign the **Big Shark Pledge** to save sharks



Eat sustainably-caught seafood



SHARK BUOYANCY

Introduction: Did you know that sharks and rays, like all fish, can control their buoyancy? Buoyancy is the ability to float or sink in a liquid. In this activity, you test buoyancy with different types of “sharks”.

Materials:

- 2 water bottles
- Cooking Oil
- Freshwater
- Salt (optional to make saltwater)
- A large container filled with freshwater or saltwater
- Sharpies to draw shark faces
- Plastic Shark toy (optional; found at the dollar store)

Directions: Let’s make 2 of our “sharks”!

Step 1: Fill one bottle with cooking oil and one bottle with freshwater. Make sure you fill both bottles with the same amount of water equally.

Step 2: Draw a shark face on both bottles!

Step 3: Place a large bin of water big enough to hold the bottles and the toy if you have one.

Step 4: Predict & Observe: Which sharks will float and which ones will sink?



Working Together

Did you know that sharks are threatened due to habitat loss, overfishing, and bycatch?

How can YOU help?



Share your favorite ray superpower on social media

#SAFEsharks #SharkSuperHeros
#TogetherForSharks



Eat sustainably-caught seafood



Join, donate, or volunteer to science-based conservation organizations like SAFE and AZA

Key Points & Key Questions to Ask:

- What makes an object float? (whether it’s lighter than the liquid)
- Does your oil bottle float or sink?
- Sharks have a large liver filled with oil. This comes from their diet of fatty fish and blubber from seals and sea lions. What if there is not enough fish because of overfishing? What will happen to the shark?

SHARK DETECTIVES!



Gather your group, put on your detective hats, and search for sharks and rays throughout your aquarium! Identify the superpowers of each species and how they relate to your groups own unique skills.

Introduction: Guests travel through different exhibits that highlight shark and ray species in various environments. Relevant biofacts can be presented at each location for guest interactions/investigations. Activities will highlight the “super powers” of the species.

Directions:

Step 1: [Create QR codes](#) for exhibits or highlight graphics to provide additional content based on the sharks and rays guests are investigating. Have guests learn about the species to identify their “superpowers!” Examples could include their speed, strength, lateral line, Ampullae of Lorenzini, countershading, teeth, etc. Stress the importance of sharks and rays as Super Hero’s of the ocean, keeping the ecosystem in balance and providing ecosystem services that benefit wildlife and people.

Step 2: Copy and cut out the cards below and provide them for guests to use during their hunt. Have the group compare how the animal’s superpower relates to the group’s detective skills as they visit each exhibit. Examples could include working together, helping each other, communicating well, listening, etc.

Step 4: Provide examples of how your aquarium team works together to care for the sharks and rays at your aquarium. Examples could include preparing diets, veterinary exams, local conservation efforts, etc. Use your participation in SAFE as one example of how collective action is helping the animals in our care. ([Visit our website](#) to learn more about SAFE conservation and research projects.)

Step 5: At each station, highlight threats to sharks and rays including unsustainable fishing practices, pollution, and habitat destruction. Guests use the cards to help the group identify some ways they can help sharks in the wild!

Step 6: Final stop - ask the group to take action *during their visit* to help sharks by:

- Signing Shark Trust’s Big Shark Pledge (see poster included in this packet)
- Donating directly to SAFE Shark and Ray (see poster included in this packet)
- Pledging to support media and TV that portray sharks in a positive way, while focusing on shark conservation efforts
- Agreeing to share the information they learned while on their hunt with other detectives!



SHARK/RAY SUPERPOWER



GROUP SUPERPOWER

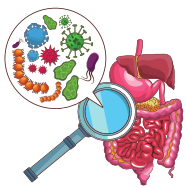
WE CAN HELP SHARKS BY

SHARK/RAY SUPERPOWER



GROUP SUPERPOWER

WE CAN HELP SHARKS BY



STOMACH SLEUTHS!

**SHARK
& RAY** 14 JULY
AWARENESS DAY

Introductions: Groups work together to “dissect” a shark stomach made of slime and plastic prey objects. Play with slime and explore where sharks and rays fit into ecosystems and food webs by studying contents of their “stomachs.”

Materials:

- Small rubber toy replicas of various animals consumed by sharks and rays, including fish, crabs, mollusks, crustaceans, etc. You may also include items NOT eaten by sharks and rays to have participants identify “what does not belong” in the stomach. A good place to find these may be in your gift shops; look for the “ocean animal tubes” or purchase a bundle online [here](#).
- Examination gloves (nitrile, latex, disposable, etc.)
- Rubber bands
- Goo or slime (can be purchased or made. See recipe at the end of the lesson.)
- Dissecting pan and child-friendly “tools” such as tweezers, scissors, etc.

Directions:

Step 1: When all the materials are collected, use a rubber band to close off the fingers of the rubber glove. The palm area will act as the “stomach” of an animal and the fingers could be labeled as the various anatomical structures leading into and away from the stomach.

Step 2: Designate shark and ray predators for which the students will perform a “gut analysis”. Determine what the prey items for sharks and rays would be, including fish, mollusks, crustaceans, etc. (See example on next page) The animal replicas and the slime represent the stomach contents for each animal’s stomach. Cut the plastic “prey” into pieces . Safety first! Be aware that depending on the material cutting may produce sharp edges that may need to be dulled.



Step 3: Prior to the activity, but not too far in advance so that the slime does not dry out, add the appropriate animal and plant prey pieces to the slime and insert into the rubber glove. Use a rubber band to then secure the main opening of the glove.



STOMACH SLEUTHS! CONTINUED

Step 4: Place the “stomach” in a dissecting pan, along with the appropriate dissecting instruments. Scissors can be used to open the stomach as in a real dissection, or take off the rubber band to expose the stomach contents. The latter will save immensely in prep time if this activity is to be with consecutive groups.

Step 5: Once the stomach contents are exposed, students should pick through the stomach slime to find and identify the bits of food, compare/contrast prey by species, and identify what “belongs” and what does not, if introducing additional items into the stomachs.

Slime Recipe



- Warm Water
- 2 cups of White School Glue, or Gel School Glue
- 3 teaspoons of Borax laundry detergent
- Food Coloring (optional)
- Medium-sized bowls for mixing ingredients
- Sticks or spoons for stirring ingredients
- Airtight containers for storing the slime

Directions: In a bowl, combine 1-1/2 cups of warm water with 2 cups of glue. Add food coloring if desired. Mix thoroughly.

In a separate bowl, mix 1-1/3 cups warm water with 3 teaspoons of Borax until it is dissolved. Slowly mix the Borax solution in with the Glue mixture, stirring constantly. Once the slime is mixed, and there is very little water remaining, you can pick up the slime and begin playing with it (over the bowl, it drips!) until it becomes less sticky and more pliable (a minute or so). Place your creation in an airtight container until use.

Example of marine trophic levels



Working Together

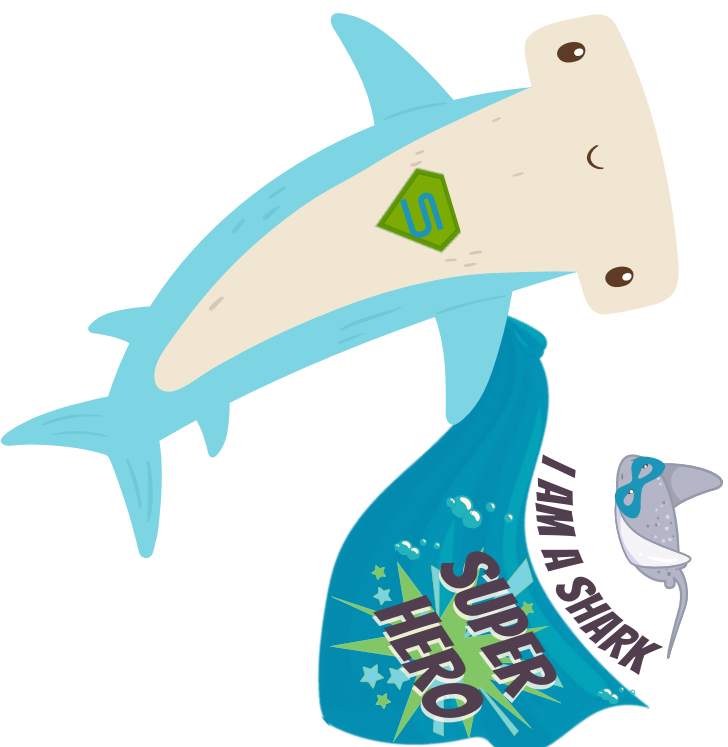
It takes a lot of research and science to provide the highest quality care for sharks and rays. SAFE partners share what we learn by caring for these animals to help sharks in the wild!

(Your Name)

Is taking action to help sharks and rays by:

SAFE Shark and Ray certifies that

BAM!



SAFE
SAVING ANIMALS
FROM EXTINCTION
SHARK AND RAY



SHARK FOOD



SHARK & RAY 14 JULY
AWARENESS DAY

MATCHING GAME

Introductions: What is one shark superpower? EATING! Sharks have diverse diets and have adapted to eating a variety of foods. Some eat fish. Others munch on snails and crabs. Some eat the tiniest food in the ocean (plankton). One species is even an omnivore - feeding on sea grass and consuming meat.

Materials:

- [DOWNLOAD THE SHARK CARDS HERE](#)
- Print and laminate shark and prey cards

Instructions:

Step 1: Place cards in random order on a table with picture-side facing up.

Step 2: Have guests match the shark with their food item.

For hints, they can flip the card over to learn more.

Example images of the cards are below:



SHARK FOOD MATCHING GAME

Nurse Shark

Nurse sharks (*Ginglymostoma cirratum*) are bottom feeders and hunt at night. They use the whisker-like barbels around their mouth to feel for prey on the ocean floor. Their mouths have enough suction power to pull animals clear out of their shells.

Channeled Whelk

Channeled Whelks (*Busycotypus canaliculatus*) are giant sea snails. They prefer shallow, sandy habitats. Their shells are part of their body and grow as they do.



Working Together

Did you know that sawfish, like sharks, are threatened due to overfishing, and habitat loss?

How can YOU help?



Share your experience today on social media

#SAFEsharks #SharkSuperHeroes
#TogetherForSharks



Eat sustainably-caught seafood



Sign the [Big Shark Pledge](#) and use your voice to save high seas sharks.

BE A SHARK & RAY INFLUENCER



Introduction: Protect sharks and rays by posting fun facts on your socials! Research shows we're more likely to trust messages from people we know. That means you can be a **Shark Superhero** by sharing your knowledge to help others appreciate and protect sharks.

Audience: Middle school and older -- day visitor or summer camper

Materials Needed:

- Paper for writing (2-3 sheets per person)
- Pens or pencils for writing
- Pre-printed Position-Rationale-Proof worksheet & example (Appendix A) and example (Appendix A)
- SAFE Sharks & Rays messaging frameworks (Appendix B)

Instructions:

Step 1: Look at the talking points and write one or two that you agree with in the POSITION column of the Position-Rationale-Proof worksheet

Step 2: Write a sentence or two about why you agree with that statement in the RATIONALE column

Step 3: Review the interpretive signs and other materials and write down a few facts that are cool, surprising and support your position in the PROOF column

Step 4: Repeat for each item in your RATIONALE column

Step 5: On a separate sheet of paper, draft your social media caption or script, creating a sentence or a paragraph for each row.

Step 6: Add a strong closing statement that encourages others to think about your message and/or take action.

Step 7: Take a photo and add your caption or record a video and add subtitles.

Step 8: Tag the aquarium, science center or zoo where you are and add these hashtags: #SAFEsharks #TogetherForSharks, #SharkSuperHeroes

BE A SHARK INFLUENCER

APPENDIX A

Be a Shark & Ray Influencer by sharing your knowledge to help others appreciate and protect sharks and rays!
Use this worksheet to plan your Shark & Ray Superhero post.

| The Position-Rationale-Proof Strategy® | | |
|--|--|--|
| Topic What you're writing about | | |
| Audience The person/people you want to reach | | |
| Writer's Personality Someone the audience trusts | | |
| Goals What you want the audience to think, feel or do | | |
| Position What you think Your main idea -- the most important thing you want your audience to know | Rationale Why you think it Explanations (definitions or descriptions) and examples that support your POSITION | Proof How you know Evidence and exposition that validate your POSITION and each RATIONALE |
| | | |
| | | |
| | | |

Position-Rationale-Proof Strategy © 2019 by Margot Lester | The Word Factory LLC

Here's an example.

| The Position-Rationale-Proof Strategy® | | |
|---|--|---|
| Position What you think. Your main idea -- the most important thing you want your audience to know | Rationale Why you think it. Explanations (definitions or descriptions) and examples that support your POSITION | Proof How you know. Evidence and exposition that validate your POSITION and each RATIONALE |
| Sharks and rays are amazing. | Rays and skates are basically flattened fish and are closely related to sharks. | Their body is cartilage. They go back to the Jurassic period -- about 150 million years ago. |
| | They don't have any bones! They're survivors! | |
| Sharks and rays need love and attention. | Sharks and rays are often portrayed as dangerous killers, which makes it hard for people to think they need to be protected. | Research shows that most articles and reports about sharks and rays focus on dangers, not biodiversity or conservation. |
| | We should protect these marine animals. | They create habitats, circulate nutrients and support healthy fisheries and eco-tourism. |
| Sustainable fishing policies and practices protect shark and rays. | Rays are good at protecting themselves from other marine animals, but not humans. | The Shark Trust says that overfishing is the only threat for 67% of shark and ray species. |
| | You can help by eating only sustainable seafood and by supporting sustainable fisheries policies in your state. | 107 of the 539 ray species are classified as threatened. |

Position-Rationale-Proof Strategy © 2019 by Margot Lester | The Word Factory LLC.

Example social media caption or script

Sharks and rays are amazing. Did you know rays and skates are basically flattened fish and are closely related to sharks? They don't have any bones – instead their body is cartilage. And they're survivors. Ray fossils have been dated back to the Jurassic period -- about 150 million years ago.

But they're often portrayed as dangerous killers. Research shows that most articles and reports about sharks and rays focus on dangers, not biodiversity or conservation. That makes it hard for people to think they need to be protected.

Sharks and rays need our love and attention because they create habitats, circulate nutrients and support healthy fisheries and eco-tourism.

Rays are good at protecting themselves from other marine animals, but not humans. The Shark Trust says that overfishing is the only threat for 67% of shark and ray species. In fact, 107 of the 539 ray species are classified as threatened. You can help by eating only sustainable seafood and by supporting sustainable fisheries policies in your state.

The AZA SAFE Shark and Ray messaging frameworks have been developed in consultation with a cross-section of the shark science community, linking to the priorities of the scientists working on shark research and conservation.

Sharks and Rays are Amazing

Sharks and rays are marvels of natural selection. Over the course of 400 million years, a staggering array of 1,200 species have evolved diverse physical and behavioral adaptations that have afforded them a critical role in marine food webs and ocean health. Our understanding of sharks and rays is ever-evolving, with new species being discovered and described all the time. However, there is still much to be learned to properly support effective, science-based conservation for all species.

Sustainable Shark and Rays

The primary threat to sharks and rays is the result of excessive and indiscriminate fishing. Insufficient management of fishing and unregulated trade in the face of strong demand for shark and ray products (including fins) have resulted in serious declines in many wild populations around the world. IUCN Red List assessments classify one-third of shark and ray species as threatened with extinction. This requires immediate conservation action. You can help by advocating for strong, science-based management, supporting campaigns and by always purchasing sustainable seafood.

Sharks and Rays Need Love and Attention

With over 1,200 diverse species, sharks and rays range from commonly misunderstood to entirely unknown. This may leave them near the bottom of the list of species popularly considered deserving of protection. One effective way to address this image problem is by learning all you can about sharks, skates, and rays, and sharing your enthusiasm with others. You can also choose to support only media that portrays a positive image of these misunderstood animals.

Working Together

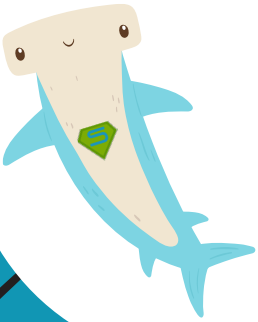
AZA institutions are working with conservation partners and stakeholders to save sharks and rays. We're making progress, with finning bans in many places and science-based management in the US and internationally - moving fisheries towards sustainability. You can help by joining, donating, or volunteering to science-based conservation organizations in support of their work, and communicating their conservation efforts.



SELF-GUIDED ACTIVITIES

These resources can be used for:

- Discovery Carts
- Classroom Activities
- Camp Activities
- Virtual Lessons
- On-the-floor Activities
- Web-based "Kid's Pages"



WHAT'S THE DIFFERENCE?

Compare and Contrast Sharks and Rays

Introduction: Sharks and rays are both **elasmobranchs**. While they look very different, they share many similarities because they are in the same subclass of cartilaginous fish.

Directions: Compare and contrast these two unique animals. Write down as many similarities and differences you notice between the shark and ray below.



Similarities

List how they are the same?

-
-
-
-
-

Contrast

List how they are different?

-
-
-
-
-

It's what's on the inside that counts!

There are 2 main groups of fish: bony and cartilaginous. Cartilaginous fish are sharks, rays, skates, and chimaeras. Bony fish are all the fish we normally think of like goldfish, sea bass, eels, or trout.

Think about the differences between bone and cartilage in our bodies. Where do we have cartilage? How is it different than bone?

What do you think are some advantages to having an all-cartilage skeleton like a shark?

LEARN ABOUT RHINO RAYS!

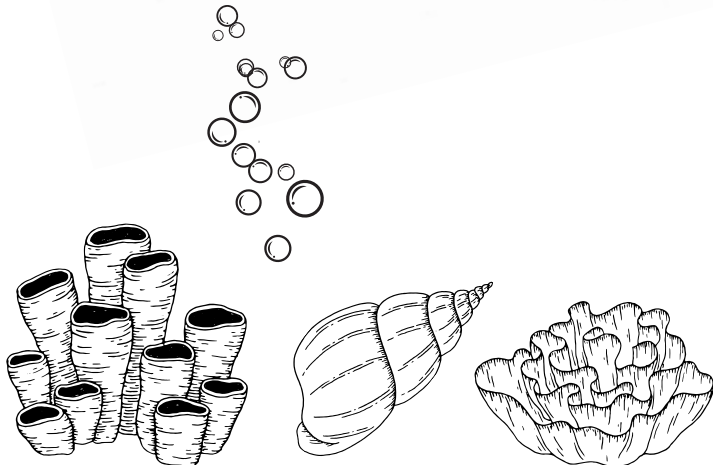
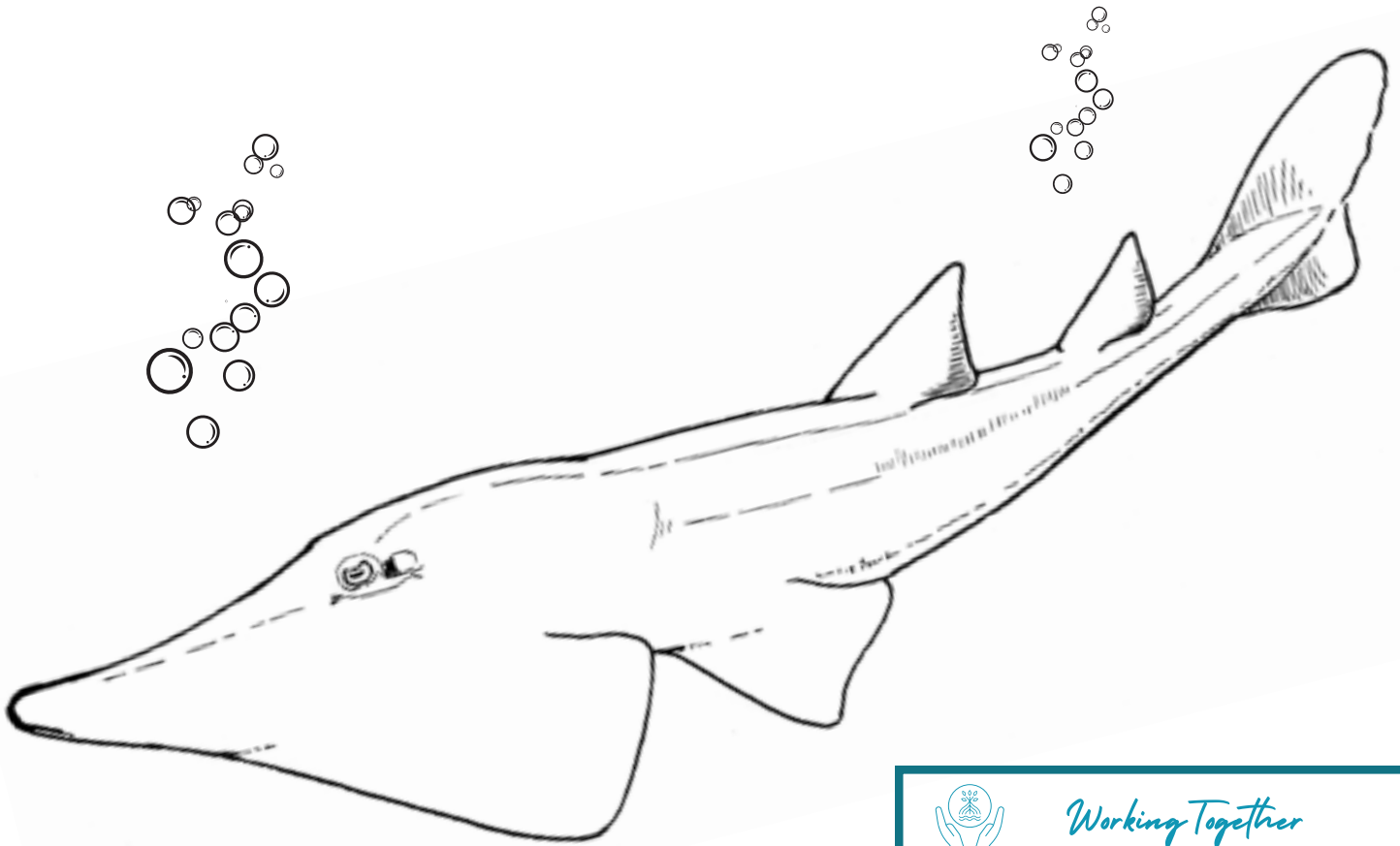
Introduction: Rhino rays are sharklike rays from five families: sawfish, wedgefish, giant guitarfish, guitarfish and banjo rays. Fifteen of the 16 species of **rhino rays** are critically endangered from humans overfishing for their meat and fish!

Materials: Colored pencils, crayons, or markers

Directions: Color the rhino ray below!

How can YOU help?

If you are buying fish, check where it comes from and choose a sustainable seafood option. Support science-based conservation organizations, such as SAFE Shark and Ray, that work to save these incredible animals.



Working Together

How can YOU help save sharks and rays like the rhino ray?



Support only media portraying these amazing animals in a positive light.



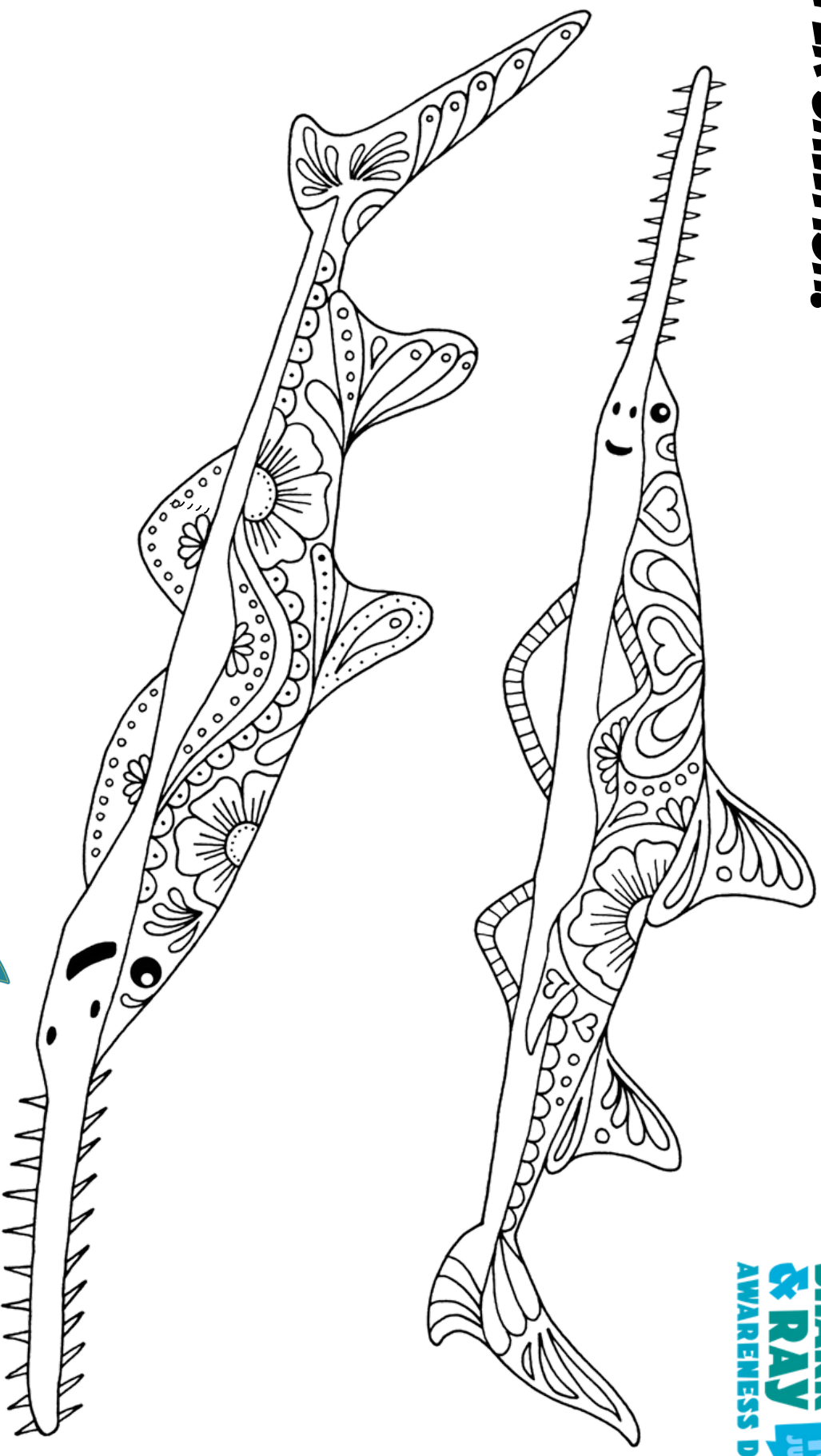
Use [shark-safe cosmetics](#)



Share your favorite shark and ray superpower on social media so others can learn about it!

SUPER SAWFISH!

**SHARK
& RAY**
14
JULY
AWARENESS DAY



Talk about a superpower! Sawfish are protected species and use their unique rostrum, that looks like a saw, to stun and catch their prey.

How will you decorate your Super Sawfish?

Sawfish are the most endangered members of the Elasmobranch family



CREATE YOUR OWN SHARK



**SHARK
& RAY** 14 JULY
AWARENESS DAY

Introduction: Sharks have so many amazing abilities, and like all superheroes, they use their special powers to keep the ocean healthy and in balance!

Materials: Colored pencils, crayons, or markers.

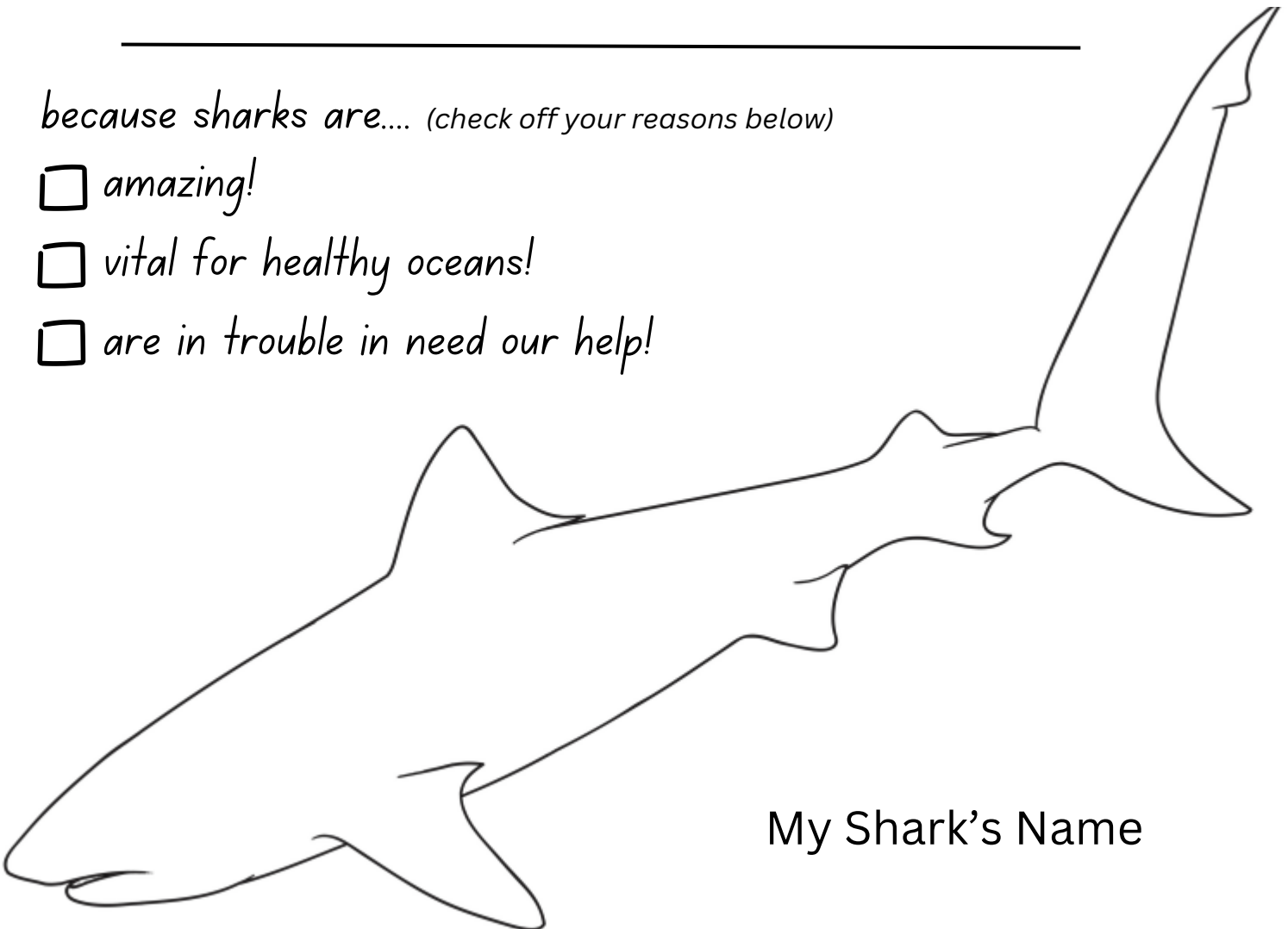
Directions:

- Use the blank shark below to make your very own shark!
- Draw its special powers based on what you learned from your visit today! Ask an Educator nearby if you're not sure!
- Don't forget to give your super shark a name!
- **Take the pledge!** In 1 sentence, how will YOU help save sharks and rays?

I will help save sharks and rays by...

because sharks are.... (check off your reasons below)

- amazing!*
- vital for healthy oceans!*
- are in trouble in need our help!*



My Shark's Name

HOW TO DRAW A GREAT HAMMERHEAD SHARK



Introduction: The great hammerhead shark (*Sphyrna mokarran*) is the largest of all the hammerhead species. Their uniquely shaped heads help them to hunt by giving them a much wider view of the world!

Directions: Follow the steps below to learn how to draw your own hammerhead shark!

How to draw a great hammerhead shark (*Sphyrna mokarran*) by Julius Csotonyi

Red steps: Pencil
Blue steps: Pen



© Julius T. Csotonyi

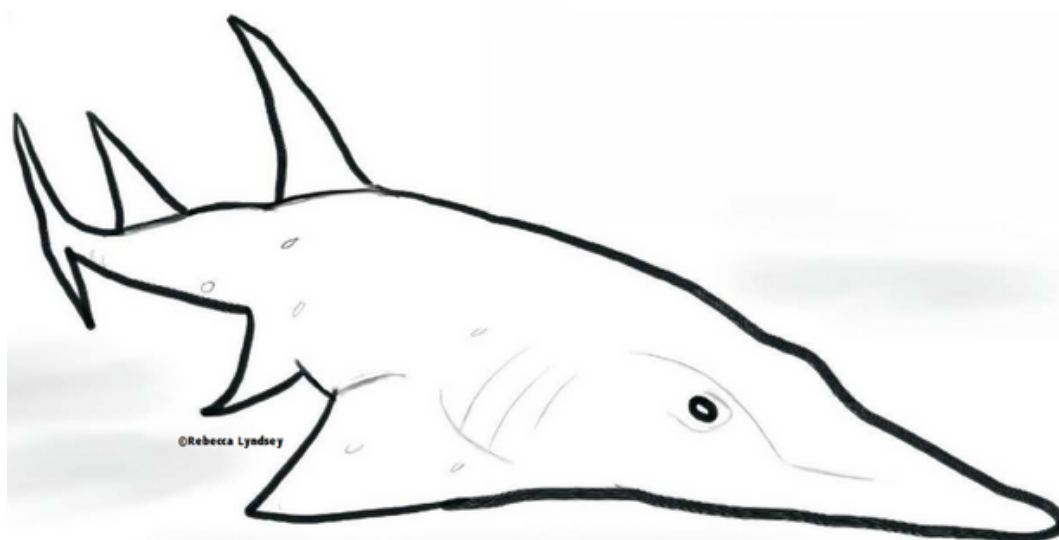
| | | | |
|----|----|----------------------|---------------------|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 Half erase pencil | 12 |
| 13 | 14 | 15 | 16 Erase all pencil |

LET'S PLAY NAME THAT FISH!



Introduction: Sharks and rays share many similarities, and some species can be confused for the other! Can you figure out what species is shown below?

Directions: To discover the name, match the number under the blanks to the letter/number key box to crack the code. We gave you some hints to start! Color the species once you're done!



| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|---|----|----|----|---|---|----|----|----|---|----|----|----|---|---|----|----|----|---|----|----|---|----|----|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 17 | 1 | 11 | 26 | 16 | 8 | 6 | 15 | 13 | 25 | 9 | 18 | 24 | 12 | 7 | 2 | 22 | 19 | 20 | 5 | 10 | 21 | 4 | 23 | 14 | 3 |

$\frac{I}{13}$ $\frac{17}{17}$ $\frac{24}{17}$

| | | | | | | | | | | | |
|---|----|----|---|----|----|---|---|---|---|----|----|
| 4 | 15 | 13 | 5 | 16 | 20 | 2 | 7 | 5 | 5 | 16 | 26 |
|---|----|----|---|----|----|---|---|---|---|----|----|

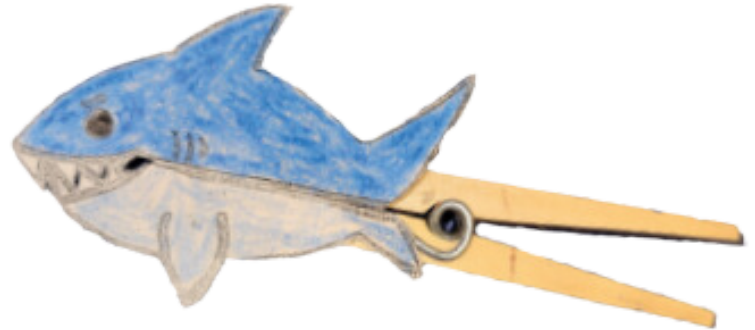
| | | | | | | | | |
|---|----|----|---|----|---|----|----|----|
| 4 | 16 | 26 | 6 | 16 | 8 | 13 | 20 | 15 |
|---|----|----|---|----|---|----|----|----|

MAKE YOUR OWN SHARK

Introduction: Did you know that sharks can go through around 30,000 teeth in one lifetime? Now that is a superpower! They use their teeth to catch and eat their prey. Are you ready to make your own shark?

Materials:

- 1 clothespin
- Scissors
- Glue or tape
- Coloring supplies
- A printout of this sheet



Directions:

- Color your shark template below.
- Cut out your shark into top and bottom pieces.
- Glue the top of the shark to the top side of the clothespin.
- Glue the bottom of the shark to the bottom side of the clothespin.
- Happy chomping!

Cut me out!



Working Together

Did you know that sawfish, like sharks, are threatened due to overfishing and habitat loss?

How can YOU help?



Share your experience today on social media.



#TogetherforSharks #SAFEsharks
#SharkSuperHeroes



Eat sustainably-caught seafood



Sign the [Big Shark Pledge](#) and use your voice to save high seas sharks.

MAKE YOUR OWN SHARK

SEA LIFE

SHARK & RAY
14 JULY
AWARENESS DAY

EXTRA CUTOUTS

Cut me out!



Cut me out!



Cut me out!



Cut me out!



TOILET ROLL HAMMERHEAD



Introduction: Hammerhead sharks are one of the most recognizable shark species. Did you know their uniquely shaped heads help them to hunt? It gives them the superpower to see in 360 degrees!

Materials

- Toilet roll tube
- Index Card
- Scissors
- Colored crayons, markers, pencils, or paint.

Directions:

Step 1: On an index card, draw 1 large **dorsal** (back) fin, 2 **pectoral** (side) fins, one large **caudal** (tail) fin, and a Cephalofoil shape (the hammer shape). Use the end of the roll as a guide to how wide the tail fin and head need to be. See the examples in picture below.

Step 2: Cut two horizontal slits at one end of the toilet roll for the head card to insert in.

Step 3: Cut two vertical slits on the other end of the toilet roll for the tail card to insert in.

Step 4: Color the toilet roll and all the pieces. Hammerheads are usually gray on top, and white on the bottom. This is called **countershading** and it gives them the superpower of **camouflage**.

**Safety first! Be careful with the scissors. Let an adult do steps 5-6, if needed.*

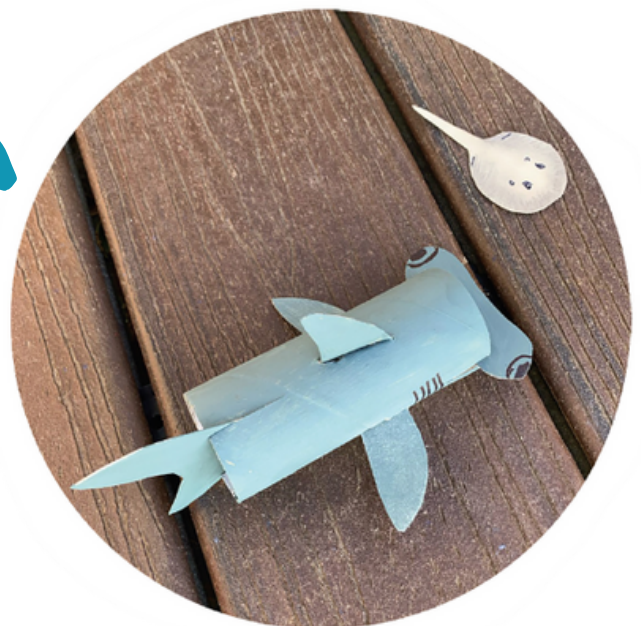
Step 5: Cut two vertical slits on the sides of the toilet roll for the side fins to insert in.

Step 6: Cut one slit at the top of the toilet roll for the dorsal fin to insert in.

Assemble!

Step 7: Insert all the pieces into the toilet roll slits.

Step 8: Color/draw in the **eyes** and **Ampullae of Lorenzini** (electroreceptors normally found by the nose)

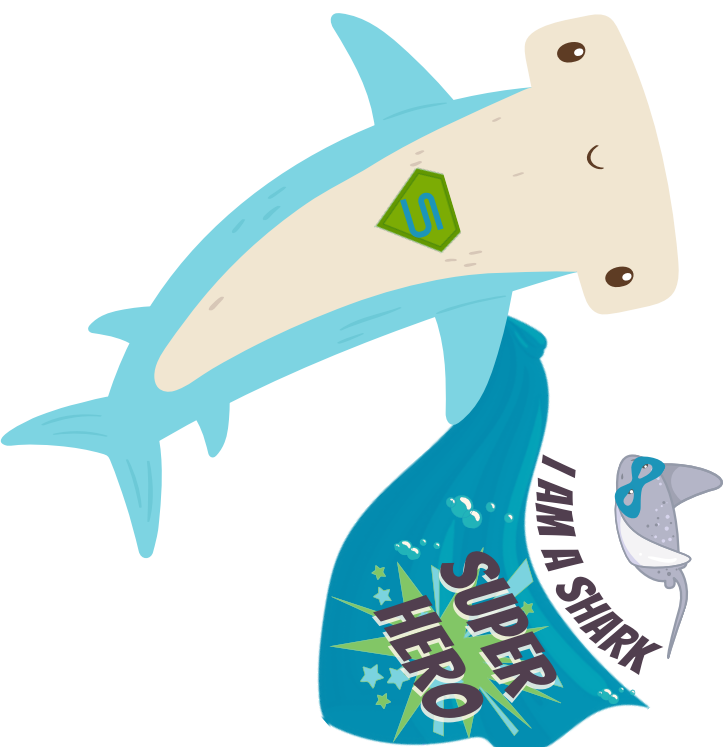


BAM!

(Your Name)

Is taking action to help sharks and rays by:

SAFE Shark and Ray certifies that



SAFE
SAVING ANIMALS
FROM EXTINCTION

SHARK AND RAY



BAM!

***USE YOUR
SUPERPOWERS***

and have a fantastic

SHARK & RAY **14**
JULY
AWARENESS DAY

