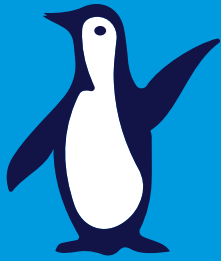


STAY HOME



with  SHEDD AQUARIUM



Shark Researcher



Have you ever wondered what's so great about sharks? You might think they're just frantic eating machines, but they're not! Sharks play a very important role in supporting ocean health. They help keep ocean food webs balanced by preventing the overpopulation of other species in the ecosystem.

At Shedd Aquarium, we love sharks; Shedd researchers and scientists worldwide actively study sharks to better understand these fascinating animals. Research goals often include figuring out how many and what kinds of sharks are in specific locations and investigating how protected areas might help keep sharks safe.

These activities are designed for families with children in grades 3-5. Educators can see an overview of all activities and classroom recommendations at sheddaquarium.org/files/shark-teachers-guide.



Shark Researcher



SHARK RESEARCH INFO SHEET

Since sharks live in the ocean, they can be tricky to research! Scientists have come up with creative ways to study these animals underwater. Let's discover some different ways shark researchers monitor sharks. Dive in!



- **Underwater Video:** BRUVs (Baited Remote Underwater Videos) are a great way to peek underwater to see how many and what kinds of sharks are in a specific area. Researchers put a small amount of food in a basket with a video camera attached before dropping it to the seafloor. Watching the video afterwards lets researchers count how many sharks came to visit! Check out this BRUV footage from our partners at Global FinPrint. *How many sharks can you count?* youtube.com/watch?v=aPrOhKmZulY
- **Tagging:** Attaching a tag to a shark is a good way to study the same shark over time. Tags can be a simple ID tag attached to a fin (like a dog's name tag) or inserted under the skin (like a dog's microchip). Thanks to the tag, if you find the same shark again you can keep track of how much or how fast it grew! Check out the 360° video from a shark nursery in The Bahamas linked below. Make sure to click and drag the video to look up, down and all around! Starting at 0:39, see if you can spot some shark pups with red tags attached to their fins! *Sketch one of these shark pups.* youtu.be/9Y2KrBgns_w
- **Tracking:** Did you know that some sharks migrate? Like geese and monarch butterflies, sharks can travel huge distances! Attaching satellite tags to sharks allows researchers to monitor a shark over a long period of time. These tags send GPS readings to a computer so scientists can see where a shark goes. Check out the shark tracking project from Nova Southeastern University linked below. When the page loads, click on the smooth hammerhead button. On the right-hand side, you will see the names of six smooth hammerhead sharks the project is tracking. Explore their different migration routes. *Which shark traveled the farthest?* ghitracking.org



Shark Researcher

MATERIALS

- **Science journal:** See instructions on how to make a science journal at sheddaquarium.org/files/science-journal or make your own notes on a piece of paper
- **Modeling clay or playdough:** If you don't have any, you can make your own using the recipe on page 8!
- **Ruler or measuring tape**
- **Materials to make a shark tag:** Beads, construction paper, paper clips—use your imagination and items that you have on hand!
- **Pencil or pen**

INSTRUCTIONS PART 1/4

Now it's time to tap into your creative skills. To do this, you will create your own shark and become a shark researcher!



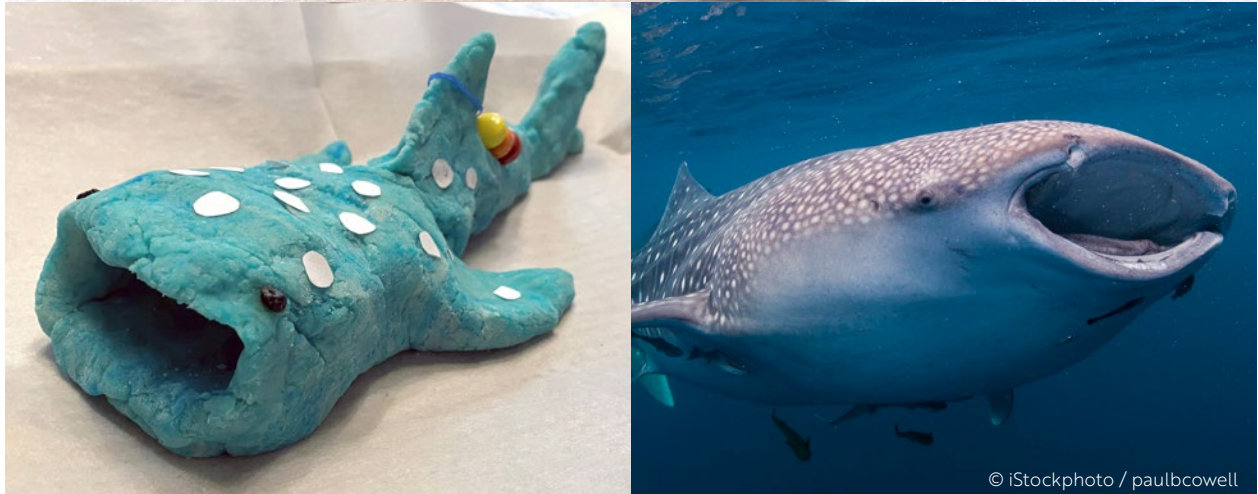
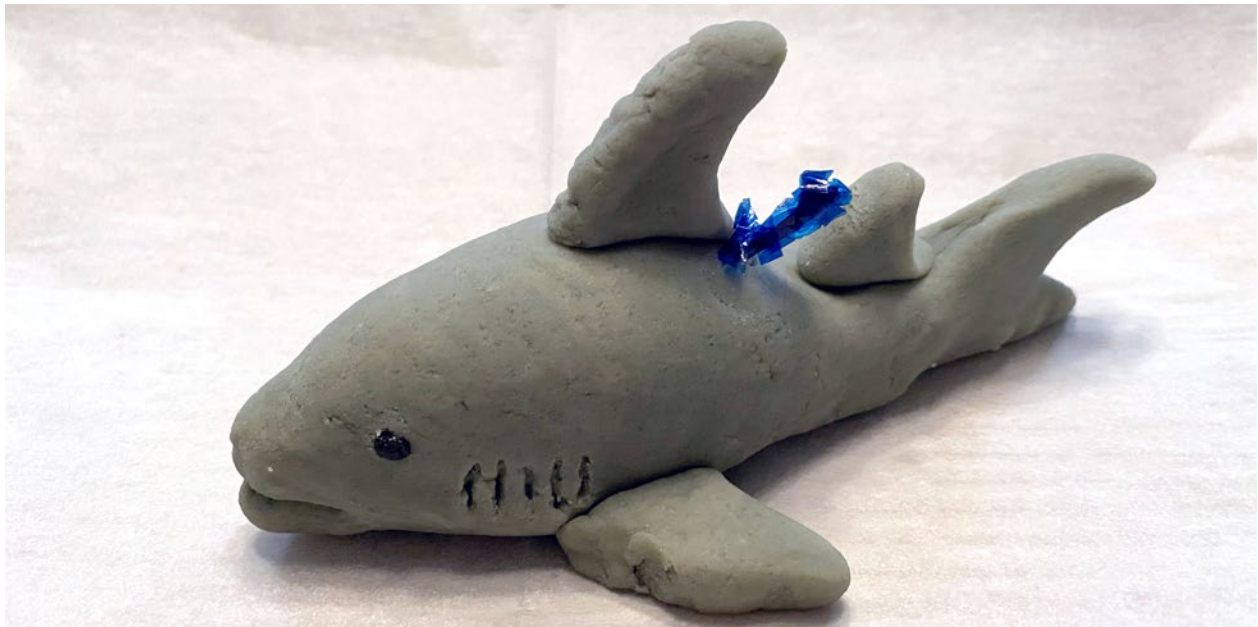


Shark Researcher

INSTRUCTIONS PART 2/4

Step 1: Sculpt your own shark! Use modeling clay, playdough or a batch of salt dough (recipe on page 8) to create your own shark. Watch the shark videos on the the Shark Research Info Sheet on page 2, find pictures of your favorite shark online or let your imagination fly!

- You can also learn more about the many different species of sharks at Shedd Aquarium by visiting sheddaquarium.org/sharks





Shark Researcher

INSTRUCTIONS PART 3/4

Step 2: Now it's your turn to be a shark researcher in the field! Imagine you are starting a research project to monitor sharks in order to set up a protected area. Your sculpted shark is the first shark you found! Using a measuring tape and the data sheet below, collect some initial data on your shark. *Tip: If you don't have a ruler you can print out the one below!*

Print and cut out this data sheet to add to your science journal or copy your own version onto a blank page.

STAY HOME WITH SHEDD AQUARIUM SHARK RESEARCHER

Date: _____ Species: _____

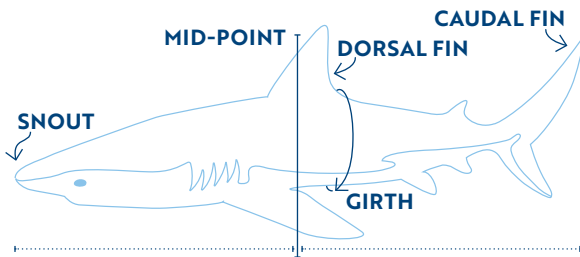
Snout to end of caudal fin: _____

Girth (measure around the shark's widest part):

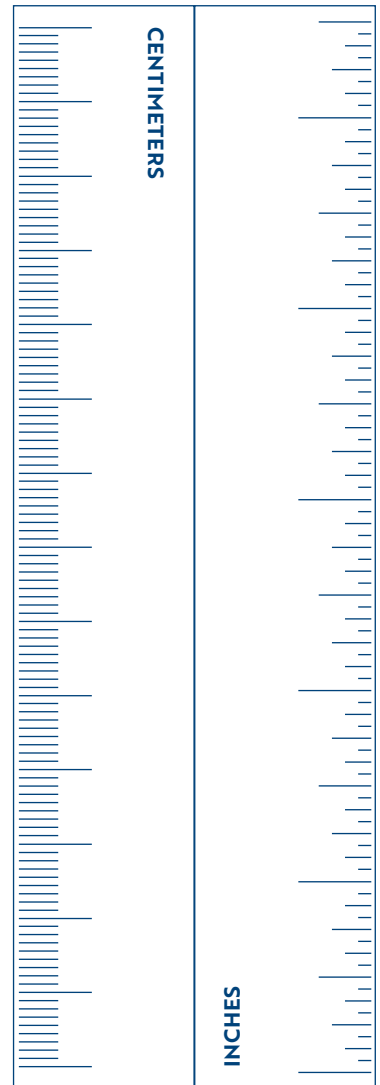
Tail length (mid-point to end of caudal fin):

Height of dorsal fin: _____

Height of caudal fin: _____



Write or draw a note about any other interesting observations or measurements of your shark below. ▼



Shark Researcher

INSTRUCTIONS PART 4/4

Step 3: Before you release your shark back into the water, you'll want to tag it so you can tell if you observe the same individual again. Design and create a tag to attach to your shark. Think about how big the tag is, how durable it will be, and how you will identify it from other tagged sharks. Sketch your ideas out first if you like, then find items around your house to build your design!



SHARE WITH US!

We want to see what you made! Take a picture of your sculpted shark and its tag and share it with us [@SheddLearning](https://www.instagram.com/SheddLearning) using [#StayHomeWithShedd](https://www.instagram.com/StayHomeWithShedd).

TELL US ABOUT YOUR EXPERIENCE!

Your feedback helps us create new content for you and your family to enjoy from home.
[surveymonkey.com/r/StayHomeShedd](https://www.surveymonkey.com/r/StayHomeShedd)



Shark Researcher



WANT TO GO DEEPER?

You're already on your way to becoming a fantastic shark researcher! Want to take action for sharks? Check out these additional resources to help #KeepSharksSwimming:

- Learn about some of the ways you can reduce your use of single-use plastics by visiting sheddaquarium.org/plastic
- Explore more ways to Keep Sharks Swimming on Shedd's website! sheddaquarium.org/keepsharksswimming
- With an adult family member, check out Shedd's petition to support a shark sanctuary in The Bahamas. surveymonkey.com/r/QRHY6GZ
- Read about Steve Kessel, Shedd's shark researcher, and his work with Caribbean reef sharks. sheddaquarium.org/stories/sharks-and-storms
- Read about how you can celebrate Earth Day's 50th anniversary at home sheddaquarium.org/stories/earth-day-2020
- With an adult family member, check out the Campaign for Nature's 30x30 Petition for Nature campaignfornature.org/petition
- Support Shedd Aquarium's work with sharks by symbolically adopting an animal. sheddaquarium.org/adopt



Shark Researcher



HOW TO MAKE SALT DOUGH PART 1/2

If you don't have clay or playdough to make a shark model, you can make your own salt dough using the instructions below!

MATERIALS (MAKES A FIST-SIZED LUMP OF SALT DOUGH)

- 1 cup white all-purpose flour
- 1/2 cup salt
- 1/2 cup + 2 tablespoons water
- 1 tablespoon cooking oil
- Food coloring (optional)
- Airtight container for storage

Step 1: In a large bowl, combine the flour and salt.

Step 2 • Adult Help Needed: With an adult's help, heat the water until almost boiling in the microwave or on the stove top, then add the oil and food coloring.

Tip: A little bit of food coloring goes a long way! Don't add too much, or the dye will come off on your hands when you use your finished dough.

Step 3 • Adult Help Needed: Pour the hot water mix into the flour and salt mix and stir together until it forms a ball. Be careful, the mixture will be hot!

Step 4: Once the dough forms a ball, knead it with your hands for several minutes. Add a little more flour if your dough is too sticky or sprinkle on some additional water if your dough is too dry.

Final Step: You can keep your salt dough for up to two weeks if you store it in an airtight container. It will dry and harden if left out uncovered.