

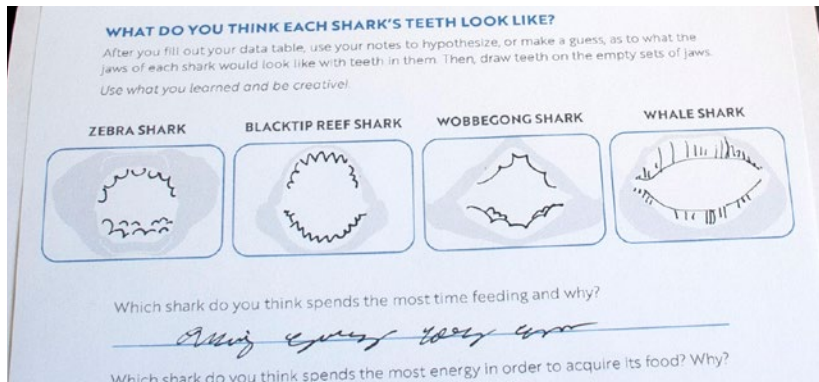
These three activities were designed for families with children in grades 3-5. They are, however, easily adapted to the classroom. Integrate them in ways that fit your classroom practices or use some of our suggestions below to extend the learning!

**The activities below were designed around the content of the Shark Video on [sheddaquarium.org/stayhome](https://sheddaquarium.org/stayhome).** For more videos and activities covering a broad range of subjects, stay tuned!



# Teacher Guide

## ACTIVITY 1: FRENZY FEEDERS OR PICKY EATERS?

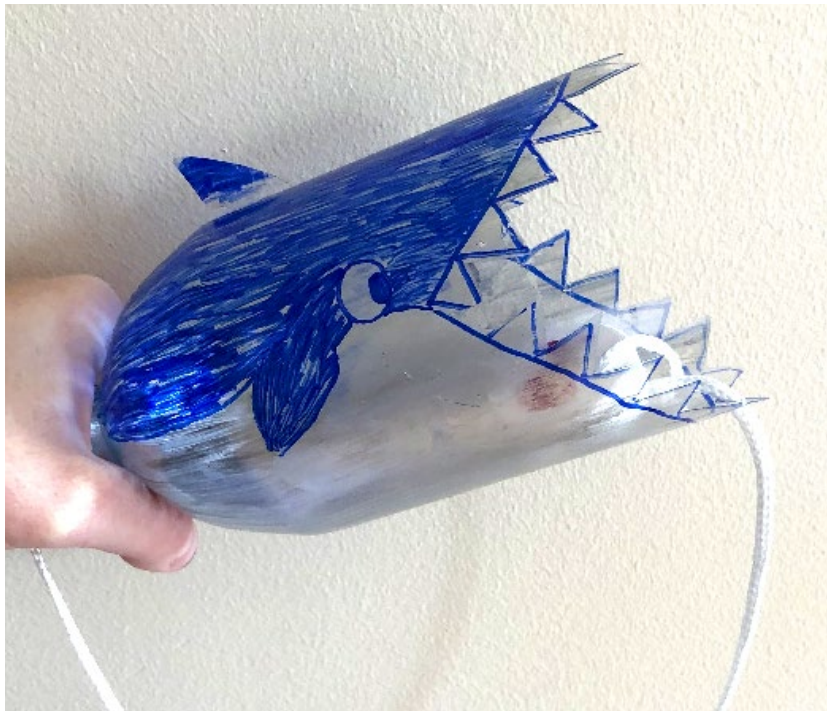


Help us bust the myth that sharks are indiscriminate, frenzied feeders by having your students explore the variety in structure and function of shark mouths. Students will also complete calculations to realize that they might eat more than a shark!

- Students will record their observations from watching beautiful Shedd Aquarium footage of sharks at feeding time. Their data sheet will guide them in comparing and contrasting shark teeth, diets and foraging strategy. **It may be helpful to have students work in pairs on tablets to view the short video multiple times as they fill out their data sheets.** Shedd Aquarium's sharks page ([sheddaquarium.org/sharks](http://sheddaquarium.org/sharks)) is also a good resource to help students in their shark feeding research.
- Next, students will predict and investigate who eats more in a week, a shark or human? They will calculate the weekly diet of a human versus a shark and discover that humans may eat more! The activity briefly explains the reasoning behind their findings, but **a great extension would be for students to explore the differences in metabolism between warm-blooded and cold-blooded organisms.**

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## ACTIVITY 2: CHOMPER CHALLENGE



By creating a cup-and-ball game inspired by their favorite shark, students can be self-directed in ensuring their creation is accurate based on their shark research. Exploring shark diets helps students connect to many important biological and ecological concepts. When thinking about prey items, students can discover how the structure of a shark’s mouth is adapted to its prey type. Discussing food chains and food webs within aquatic ecosystem also is important when considering sharks and their role, often as apex predators.

- **Invite students to spend time researching sharks on Shedd Aquarium’s website, or through other reliable sources.** Have them pick one shark they are most excited about and learn everything they can about their mouth, teeth, and diet.
- Once students have the information they need, **they can express their creativity as they design and create their cup-and-ball game.**



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## ACTIVITY 3: SHARK RESEARCHER



Shark conservation efforts rely on gathering population data using different types of technology to track their movement and numbers. Explore these methods with your students and they will ultimately design their own shark ID tag.

- **Students can deeply consider shark morphology and research methods** as they sculpt a shark that they would want to monitor in the wild.
- **We encourage you to have students work in pairs and discuss their reasoning** for their shark tag designs and consider any challenges they would face as researchers in monitoring shark populations.



# Teacher Guide

## COMMON CORE CONNECTIONS:

### **CCSS.ELA-LITERACY.RI.3.5**

Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

### **CCSS.ELA-LITERACY.RI.4.4**

Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

### **CCSS.ELA-LITERACY.RI.5.7**

Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

*Flip to the next page for NGSS connections >*



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## NGSS CONNECTIONS:

	GRADE 3	GRADE 4	GRADES 3-5
<b>Standard</b>	3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	3-5 ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
<b>Science and Engineering Practices</b>	Obtaining, evaluating, and communicating information	Engaging in Argument from Evidence Constructing explanations	Constructing explanations and designing solutions
<b>Disciplinary Core Ideas</b>	LS4.C: Adaptation LS1.A: Structure and Function	LS4.C: Adaptation LS1.A: Structure and Function	Developing Possible Solutions
<b>Cross-Cutting Concepts</b>	Patterns Structure and Function	Structure and Function Cause and Effect	Influence of Science, Engineering, and Technology on Society and the Natural World
<b>Activity</b>	Activity 1: Frenzy Feeders or Picky Eaters	Activity 1: Frenzy Feeders or Picky Eaters Activity 2: Chomper Challenge	Activity 3: Shark Researcher